

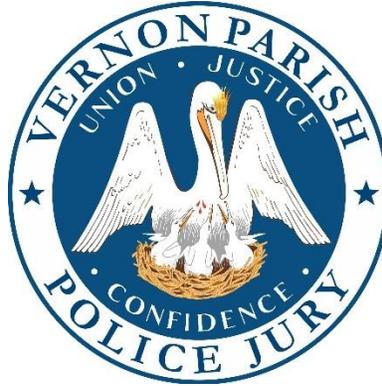
2023 VERNON PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

UNINCORPORATED VERNON
PARISH, ANACOCO, HORNBECK,
LEESVILLE, NEW LLANO,
ROSEPINE, SIMPSON



VERNON PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE

Prepared for:
Vernon Parish



Prepared by:
Stephenson Disaster Management Institute
Mr. Brant Mitchell, CEM
Mrs. Lauren Morgan, MEPP
Mr. Chris Rippetoe, CFM
Dr. Joseph B. Harris, PhD
Mr. Jason Martin

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



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Unincorporated Vernon Parish

Village of Anacoco

Town of Hornbeck

City of Leesville

Town of New Llano

Town of Rosepine

Village of Simpson

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Kenneth Moore

Belinda Diehl

Cara McDaniel

Carl Thompson

Vickie Standifer

Patti Larney

Caroline Todd

Donna Duval

Keith Lewing

Vernon Parish OHSEP

Vernon Parish Police Jury

Town of Hornbeck

Vernon Parish Police Jury

Village of Simpson

City of Leesville

Town of New Llano

Town of Rosepine

Village of Anacoco

The 2023 Vernon Parish Hazard Mitigation Plan Update was written by the Stephenson Disaster Management Institute, Louisiana State University. Further comments should be directed to the Vernon Parish Office of Homeland Security and Emergency Preparedness: 300 South 3rd St., Leesville, LA 71496.



Contents

- 1. Introduction1-1**
 - Geography, Population and Economy1-2
 - Geography.....1-2
 - Population.....1-4
 - Economy.....1-4
 - Hazard Mitigation1-5
 - General Strategy1-7
 - 2023 Plan Update.....1-8
- 2. Hazard Identification and Parish-Wide Risk Assessment2-1**
 - Prevalent Hazards to the Community.....2-1
 - Previous Occurrences2-2
 - Probability of Future Hazard Events2-3
 - Inventory of Assets for the Entire Parish2-4
 - Critical Facilities of the Parish2-6
 - Assessing Vulnerability Overview2-11
 - Quantitative Methodology2-11
 - Qualitative Methodology2-11
 - Priority Risk Index and Hazard Risk.....2-12
 - Future Development Trends.....2-13
 - Future Hazard Impacts.....2-15
 - Land Use.....2-15
 - Hazard Identification.....2-17
 - Dam Failure2-17
 - Drought2-20
 - Excessive Heat.....2-24
 - Flooding.....2-27
 - Levee Failure2-47
 - Thunderstorms.....2-49
 - Tornadoes2-61
 - Tropical Cyclones2-68
 - Wildfires2-81
 - Winter Weather2-94
- 3. Capability Assessment3-1**
 - Policies, Plans and Programs3-1



Building Codes, Permitting, Land Use Planning and Ordinances3-2

Administration, Technical, and Financial 3-2

Education and Outreach 3-3

Flood Insurance and Community Rating System 3-4

NFIP Worksheets.....3-6

4. Mitigation Strategy.....4-1

Introduction4-1

Goals4-1

2023 Mitigation Actions and Update on Previous Plan Actions4-2

 Vernon Parish Mitigation Actions4-4

 Village of Anacoco Mitigation Actions4-46

 Town of Hornbeck Mitigation Actions4-59

 City of Leesville Mitigation Actions.....4-71

 Town of New Llano Mitigation Actions.....4-84

 Town of Rosepine Mitigation Actions.....4-97

 Village of Simpson Mitigation Actions4-110

Action Prioritization4-123

Appendix A: Planning Process..... A-1

 Purpose A-1

 The Vernon Parish Hazard Mitigation Plan Update A-1

 Planning A-2

 Coordination A-2

 Neighboring Community, Local and Regional Planning Process Involvement A-2

 Program Integration..... A-3

 Meeting Documentation and Public Outreach Activities A-4

 Meeting #1: Hazard Mitigation Plan - Kick-Off Meeting..... A-4

 Meeting #2: Hazard Mitigation Plan – Initial Planning Committee Meeting..... A-5

 Meeting #3: Hazard Mitigation Plan – Mitigation Action Workshop..... A-5

 Meeting #4: Hazard Mitigation Plan – Risk Assessment Presentation to Planning Committee A-6

 Meeting #5: Hazard Mitigation Plan – Public Meeting A-6

 Outreach Activity #1: Public Opinion Survey A-7

 Outreach Activity #2: Public Meeting Activity - Incident Questionnaire A-7

 Outreach Activity #3: 2023 Vernon Parish Hazard Mitigation Plan Public Review..... A-7

Appendix B: Plan Maintenance..... B-1

 PurposeB-1



Implementing, Monitoring, Evaluating, and Updating the PlanB-1

Responsible Parties B-1

Methods for Monitoring and Evaluating the Plan and Plan Evaluation Criteria.....B-1

2023 Plan Version Plan Method and Schedule EvaluationB-3

Incorporation into Existing Planning ProgramsB-3

Continued Public Participation B-6

Appendix C: Critical Facilities..... C-1

 Critical Facilities within the Vernon Parish Planning AreaC-1

Appendix D: Plan Adoption D-1

 Vernon Parish..... D-1

 Village of Anacoco..... D-3

 Town of Hornbeck..... D-4

 City of Leesville D-5

 Town of New Llano D-6

 Town of Rosepine D-7

 Village of Simpson..... D-8

Appendix E: State Required Worksheets.....E-1

 Mitigation Planning Team..... E-1

 Capability Assessment E-2

 Vernon Parish.....E-2

 Village of Anacoco.....E-5

 Town of Hornbeck..... E-8

 City of Leesville E-11

 Town of New Llano E-14

 Town of Rosepine E-17

 Village of Simpson..... E-20

 Building Inventory..... E-23

 Vulnerable Populations..... E-27

 National Flood Insurance Program (NFIP) E-28



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

- Unincorporated Vernon Parish
- Village of Anacoco
- Town of Hornbeck
- City of Leesville
- Town of New Llano
- Town of Rosepine
- Village of Simpson

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

Geography, Population and Economy

Geography

Vernon Parish, located at the heart of west-central Louisiana, is the largest parish in the state in terms of land area, possessing a total area of 1,341.5 square miles (858,560 acres). Leesville, the parish seat, is located 122 miles south of Shreveport, 70 miles north of Lake Charles, and 54 miles west of Alexandria. It is adjacent to Sabine and Natchitoches Parishes to the north, Rapides Parish to the east, and Allen and Beauregard Parishes to the south. The Sabine River forms its western border with the State of Texas.

Vernon Parish includes the incorporated communities of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson. Since the 1940s, it has also been the home of Fort Polk, the fifth largest military installation in the nation. Approximately half of the parish population lives in rural areas or in unincorporated communities.



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

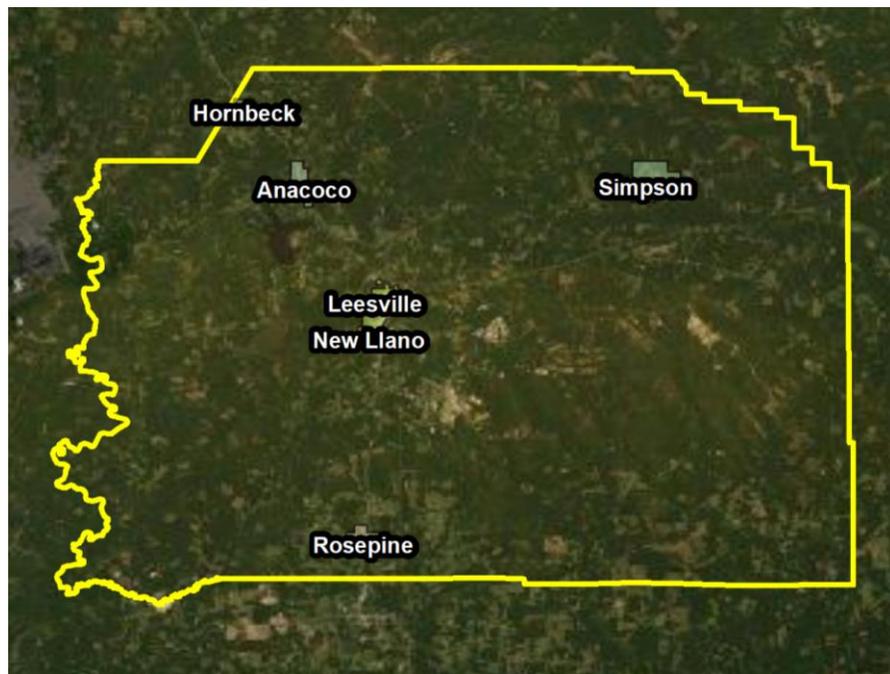


Figure 1-2: Incorporated Jurisdictions within Vernon Parish

U.S. Highway 171 is the primary north-south traffic route for Vernon Parish. Most of the incorporated communities in the parish are situated along this highway. North of Leesville, State Highway 117 branches off U.S. 171 and the two highways continue north in a somewhat parallel direction. From the eastern border, State Highways 8 and 28 head marginally west-southwest until Highway 28 merges into Highway 8 east of Leesville, which then continues west across the parish. At the unincorporated community of Pickering, State Highway 10 branches off U.S. Highway 171 and heads east-southeast in the southern third of the parish.

Dominant landscape features consist of wooded areas, rolling hills, and open farmland. Kisatchie National Forest is located in the eastern half of the parish. Sabine River, Anacoco Lake, and Vernon Lake are the parish's major bodies of water; all are located in the western half of the parish. Average elevation in Vernon Parish is about 330 feet above sea level.

Vernon Parish weather is typically warm and humid. Variations in daily temperature are determined by distance from the Gulf of Mexico and, to a much lesser degree, by differences in elevation. The average annual temperature for the state as a whole is 68°F. January is typically the coldest month for Louisiana, averaging approximately 54°F, while July is typically the warmest at an average of 83°F. Winter months are usually mild with cold spells of short duration. For Vernon Parish in particular, the summer months are usually quite warm, with an average daily maximum temperature in July and August of 92°F. Winters are typically mild. Snowfall averages less than one inch per year. Average annual rainfall for the area is 59 inches. Vernon Parish is susceptible to the normal weather dangers, such as thunderstorms and flooding, but due to its location within the state and its proximity to the Gulf of Mexico, the parish is highly susceptible to tropical cyclones. Hurricane season lasts from June 1st to November 30th, with most hurricanes forming in August, September, and October.

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

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



Figure 1-3: Louisiana Homeland Security Regions

Population

The population of Vernon Parish is 48,750 according to the 2020 census with a population percent change from April 1, 2010 – April 1, 2020 of -7.41%.

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

	2010 Census	2013 Estimate	2020 Census	Percent Change 2010 - 2020
Total Population	52,334	52,828	48,750	-7.35%
Population Density (Pop/Sq. Mi.)	39.4	-----	36.7	-7.36
Total Households	18,148	18,148	17,696	-2.55%
Persons Per Household	-----	-----	2.68	-----

Economy

The local economy is primarily based on service-related industries that support Fort Polk. There is a strong desire to attract more diverse businesses that will provide quality labor opportunities for the local market as well as for military spouses. Fort Polk and the Vernon Parish School Board are the largest employers in Vernon Parish, but much of the land is given to timber production and cattle farming. Industry data for business patterns in Vernon Parish can be found in the table below:

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

Business Description	Number of Establishments	Number of Employees	Annual Payroll (\$1,000)
Retail Trade	119	1,503	41,488
Manufacturing	10	144	5,649
Health Care and Social Assistance	67	1,719	90,452
Transportation and Warehousing	40	222	7,294
Construction	47	406	19,994
Administration/Support and Waste Management/Remediation Services	22	385	17,973
Real Estate and Rental and Leasing	32	257	12,128
Wholesale Trade	15	67	3,071
Other Services (except Public Administration)	64	326	6,808
Accommodation and Food Services	84	1,174	17,170
Financial and Insurance	43	252	11,822
Professional, Scientific, and Technical Services	82	337	17,603
Agriculture, Forestry, Fishing and Hunting	17	93	5,158
Mining, Quarrying, and Oil and Gas Extraction	6	5	149
Utilities	7	71	5,117
Arts, Entertainment, and Recreation	4	13	373
Educational Services	9	100	4,177
Information	10	85	3,369
Management of Companies and Enterprises	3	43	1,377

Hazard Mitigation

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

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

- **Emergency Preparedness**—includes plans and preparations made to save lives and property and to facilitate response operations in advance of a disaster event.
- **Disaster Response**—includes actions taken to provide emergency assistance, save lives, minimize property damage, and speed recovery immediately following a disaster.
- **Disaster Recovery**—includes actions taken to return to a normal or improved operating condition following a disaster.

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

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

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

the concerns resulting from engineered flood-protection solutions. More recently, the historically impactful 2020 hurricane season reinforced the need for proper planning and mitigation strategies.

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.



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

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 Vernon 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 Vernon 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 Vernon 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 Vernon Parish Hazard Mitigation Plan. The current goals are as follows:

1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events
2. Implement measures to protect or reduce damage to structures and assets from future hazards
3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards
4. Reduce hazard impacts through modifications to built or natural environments
5. Enhance public awareness and understanding of disaster preparedness
6. Improve communications throughout the parish during hazard events

This plan update makes a number of textual changes throughout, but the most obvious changes are data related and structural edits. First, the National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information's (NCEI) Storm Events Database was used in the analysis, which provides historical hazard data from 1950 to 2020. The steering committee was also instrumental in providing detailed data where appropriate to more accurately reflect hazard impacts on the parish and jurisdictions. Furthermore, all of the sections were updated to reflect the most current information and the most current vision of the plan update. The most significant changes are the newly developed hazard profiles and risk assessments, as well as the removal of much repetition between sections from the previous plan updates.

The 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 Strategies
- Appendix A Planning Process
- Appendix B Plan Maintenance
- Appendix C Critical Facilities
- Appendix D Plan Adoption
- Appendix E State Required Worksheets

Table 1-3: 2023 Plan Update Crosswalk

Plan Update Crosswalk	
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 Vernon Parish and its communities. The extent of this risk is dictated primarily by its geographic location. Most significantly, Vernon 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 Vernon Parish. Other hazards threaten the parish and/or its communities, although not to such great degrees and not in such widespread ways. In all cases, the relative social vulnerability of areas threatened and affected plays a significant role in how governmental agencies and their partners (local, parish, state and federal) prepare for and respond to disasters.

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

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2. Hazard Identification and Parish-Wide Risk Assessment

This section assesses the various hazard risks that Vernon 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 Vernon 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
Dam Failure	X		X
Earthquakes	*		
Excessive Heat	X		X
Flooding	X	X	X
Levee Failure	X		+
Thunderstorms (Hail, Lightning, & Wind)	X	X	X
Tornadoes	X	X	X
Tropical Cyclones	X	X	X
Wildfires	X		X
Winter Weather	X		X

*Hazard discounted in previous plan; +Hazard discounted

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 hazard of levee failure was profiled, but was not carried forward to risk assessment due to no levees being located in the parish. The following hazards have been selected to be included in this risk assessment:

- a) Dam Failure
- b) Drought
- c) Extreme Heat
- d) Flooding
- e) Thunderstorms (Hail, Lightning, & Wind)
- f) Tornadoes
- g) Tropical Cyclones

- h) Wildfires
- i) Winter Weather

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

- Flooding from rivers and waterways, rains to r m s , 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 and floods were determined to be the most prevalent hazard to the parish. Nine of the seventeen disaster declarations Vernon Parish has received resulted from tropical cyclones, which validates these as the most significant hazards. Therefore, the issues of hurricanes 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 Vernon Parish is included in the hurricane risk assessment.

Vernon Parish is also susceptible to tornadoes. Tornadoes can spawn from tropical cyclones or severe weather systems that pass-through Vernon 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

Table 2-2 on the following page summarizes federal disaster declarations for Vernon Parish since 1965. Information includes names, dates, and types of disaster.

Table 2-2: Vernon Parish Major Disaster Declarations

Disaster Number	Year	Declaration
3031	2/22/1977	Freezing
675	1/11/1983	Severe Storm, Flooding
829	5/20/1989	Severe Storm, Flooding
833	6/16/1989	Severe Storm, Tornado
835	7/17/1989	Tropical Cyclone – TC Allison
2337	9/11/2000	Fire
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, Flooding
1786	9/2/2008	Tropical Cyclone – Hurricane Gustav
1792	9/13/2008	Tropical Cyclone – Hurricane Ike
4345	10/16/2017	Tropical Cyclone – TS Harvey
4458	8/27/2019	Tropical Cyclone – Hurricane Barry
4484	3/24/2020	COVID-19 Pandemic
4559	8/28/2020	Tropical Cyclone – Hurricane Laura

Probability of Future Hazard Events

The probability of a hazard event occurring in Vernon Parish is estimated in the table on the following page. The percent chance of an event happening during any given year was calculated by posting past events and dividing by the time period. Unless otherwise indicated, the time period used to access probability followed the method used in the State of Louisiana’s most current Hazard Mitigation Plan. The primary source for historical data used throughout the plan is the National Oceanic and Atmospheric Administration’s (NOAA) National Centers for Environmental Information’s (NCEI) Storm Events Database, which provides historical hazard data from 1950 to 2020. In staying consistent with the state plan, the Storm Events Database was evaluated for the last thirty years (1990 – 2020) to determine future probability of a hazard occurring. While the 30-year record used by the State was adopted for the purpose of determining the overall probability, to assist with determining estimated losses, unless otherwise stated, the full 70-year record was used when Hazus was not available to determine losses. This full record was used to provide a more extensive record to determine losses. All assessed damages were adjusted for inflation in order to reflect the equivalent amount of damages with the value of the U.S. dollar today.

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

Table 2-3: Probability of Future Hazard Reoccurrence.

Hazard	Probability						
	Unincorporated Vernon Parish	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
Dam Failure	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
Drought	13%	13%	13%	13%	13%	13%	13%
Extreme Heat	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
Flooding	43%	17%	10%	33%	10%	17%	10%
Thunderstorms - Hail	100%	100%	100%	100%	100%	100%	100%
Thunderstorms - Lightning	7%	7%	7%	7%	7%	7%	7%
Thunderstorms - Winds	100%	100%	100%	100%	100%	100%	100%
Tornadoes	100%	100%	100%	100%	100%	100%	100%
Tropical Cyclones	33%	33%	33%	33%	33%	33%	33%
Wildfires	3%	3%	3%	3%	3%	3%	3%
Winter Weather	57%	57%	57%	57%	57%	57%	57%

As shown in the above table, hailstorms, thunderstorm winds, and tornadoes have the highest chance of occurrence in the parish (100%). These are followed by winter storms (57%), flooding for the unincorporated area of Vernon Parish (43%), flooding for the incorporated area of Leesville and tropical cyclones (33%), flooding for the incorporated areas of Anacoco and Rosepine (17%), drought (13%), flooding for the incorporated areas of Hornbeck, New Llano, and Simpson (10%), lightning (7%), and wildfires (3%). The hazards of dam failure and extreme heat have less than a one percent chance of occurrence.

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 \$4,111,654,000 in structures throughout the parish. The tables on the following page provide the total estimated value for each type of structure by occupancy.

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

Occupancy	Vernon Parish	Unincorporated Area	Anacoco	Hornbeck
Agricultural	\$7,453,000	\$5,012,000	\$341,000	\$0
Commercial	\$410,365,000	\$221,450,000	\$4,070,000	\$381,000
Government	\$28,387,000	\$10,755,000	\$2,132,000	\$0
Industrial	\$44,604,000	\$33,298,000	\$488,000	\$58,000
Religion	\$82,029,000	\$50,402,000	\$415,000	\$303,000
Residential	\$3,501,752,000	\$2,567,764,000	\$60,626,000	\$43,535,000
Education	\$37,064,000	\$10,916,000	\$1,846,000	\$1,904,000
Total	\$4,111,654,000	\$2,899,597,000	\$69,918,000	\$46,181,000

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

Occupancy	Leesville	New Llano	Rosepine	Simpson
Agricultural	\$1,197,000	\$477,000	\$426,000	\$0
Commercial	\$164,262,000	\$8,880,000	\$4,594,000	\$6,728,000
Government	\$11,813,000	\$2,137,000	\$1,148,000	\$402,000
Industrial	\$8,518,000	\$876,000	\$940,000	\$426,000
Religion	\$23,807,000	\$1,720,000	\$4,388,000	\$994,000
Residential	\$477,179,000	\$187,660,000	\$108,171,000	\$56,817,000
Education	\$16,304,000	\$141,000	\$3,810,000	\$2,143,000
Total	\$703,080,000	\$201,891,000	\$123,477,000	\$67,510,000

Critical Facilities of the Parish

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

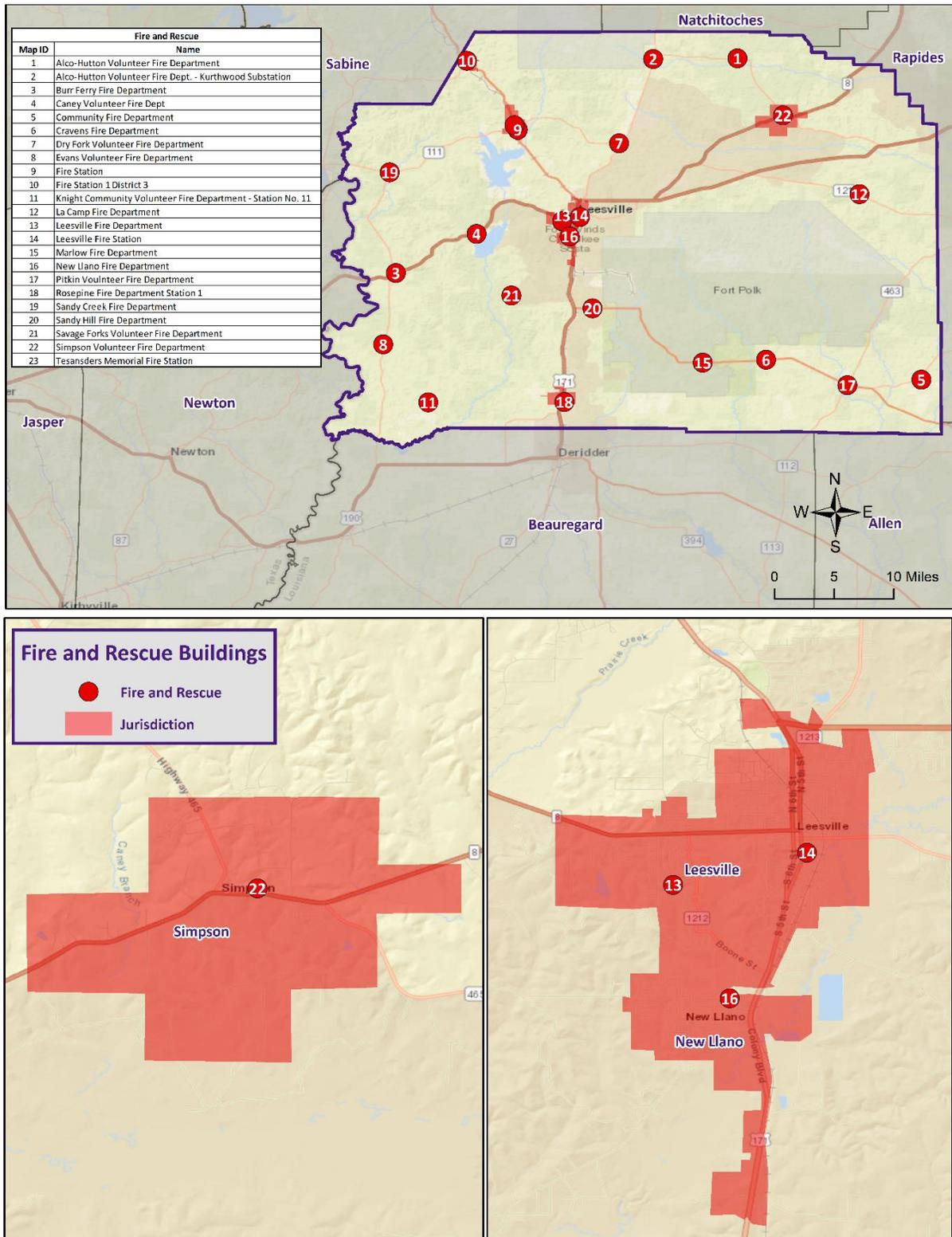


Figure 2-1: Fire and Rescue Facilities in Vernon Parish

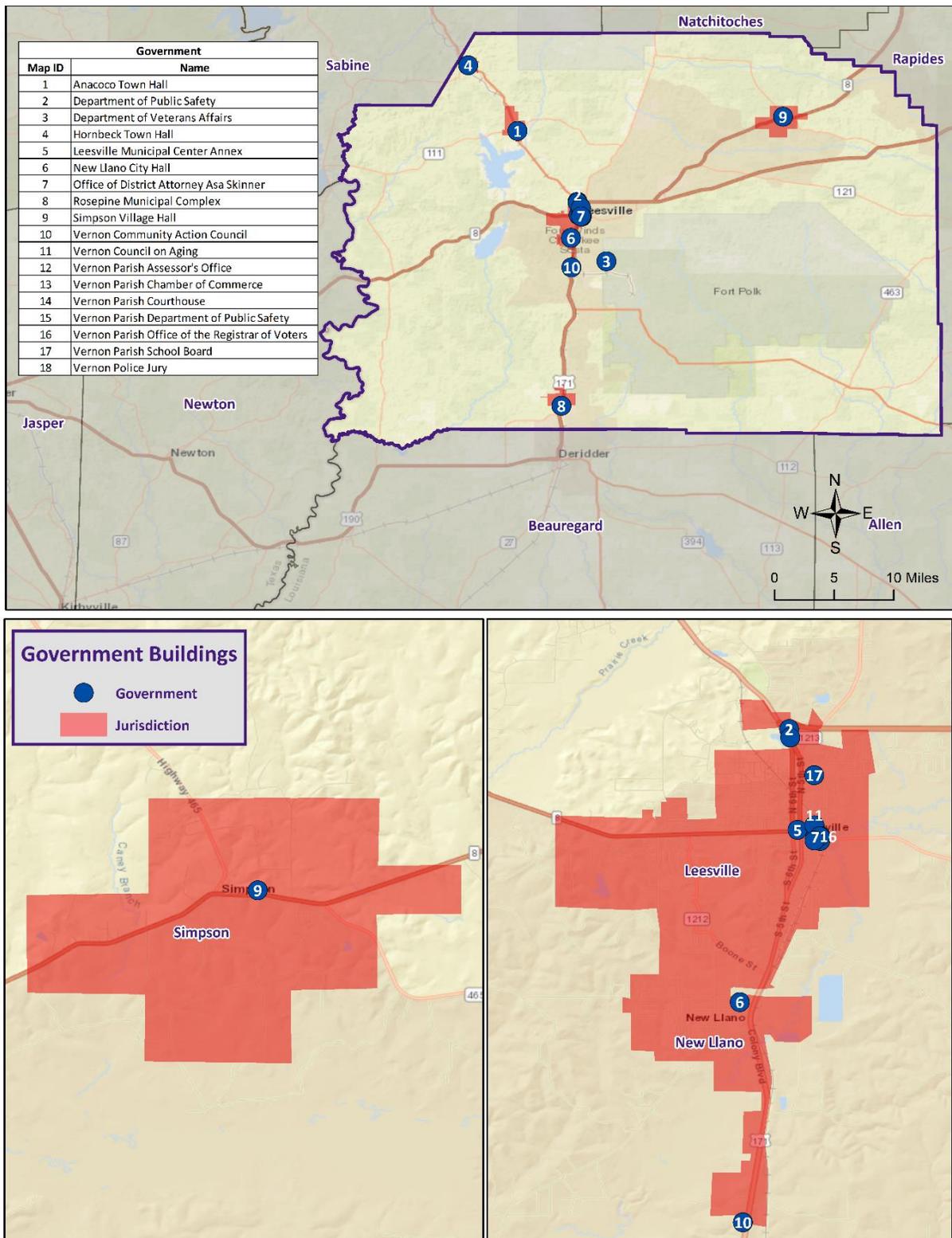


Figure 2-2: Government Buildings in Vernon Parish

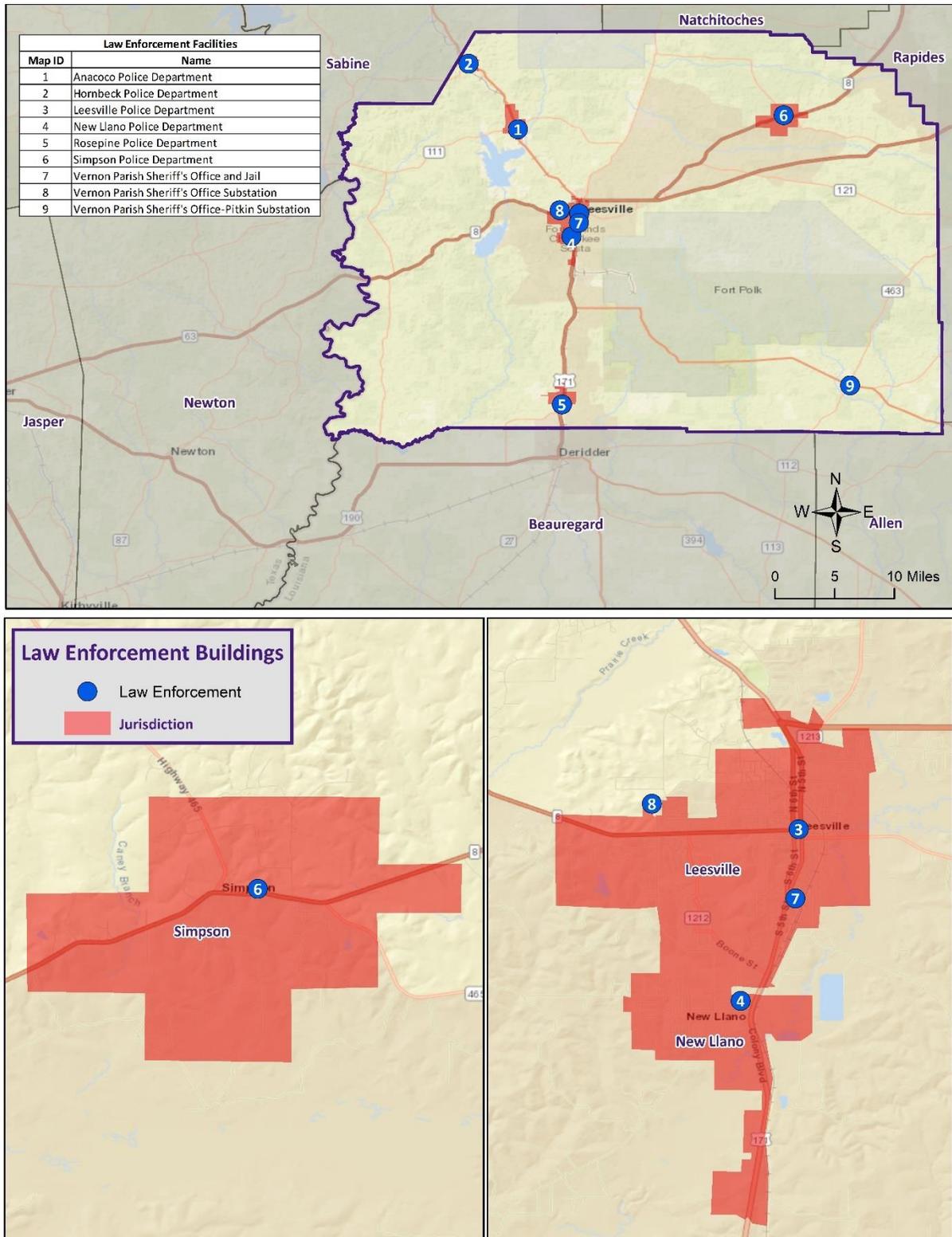


Figure 2-3: Law Enforcement Facilities in Vernon Parish

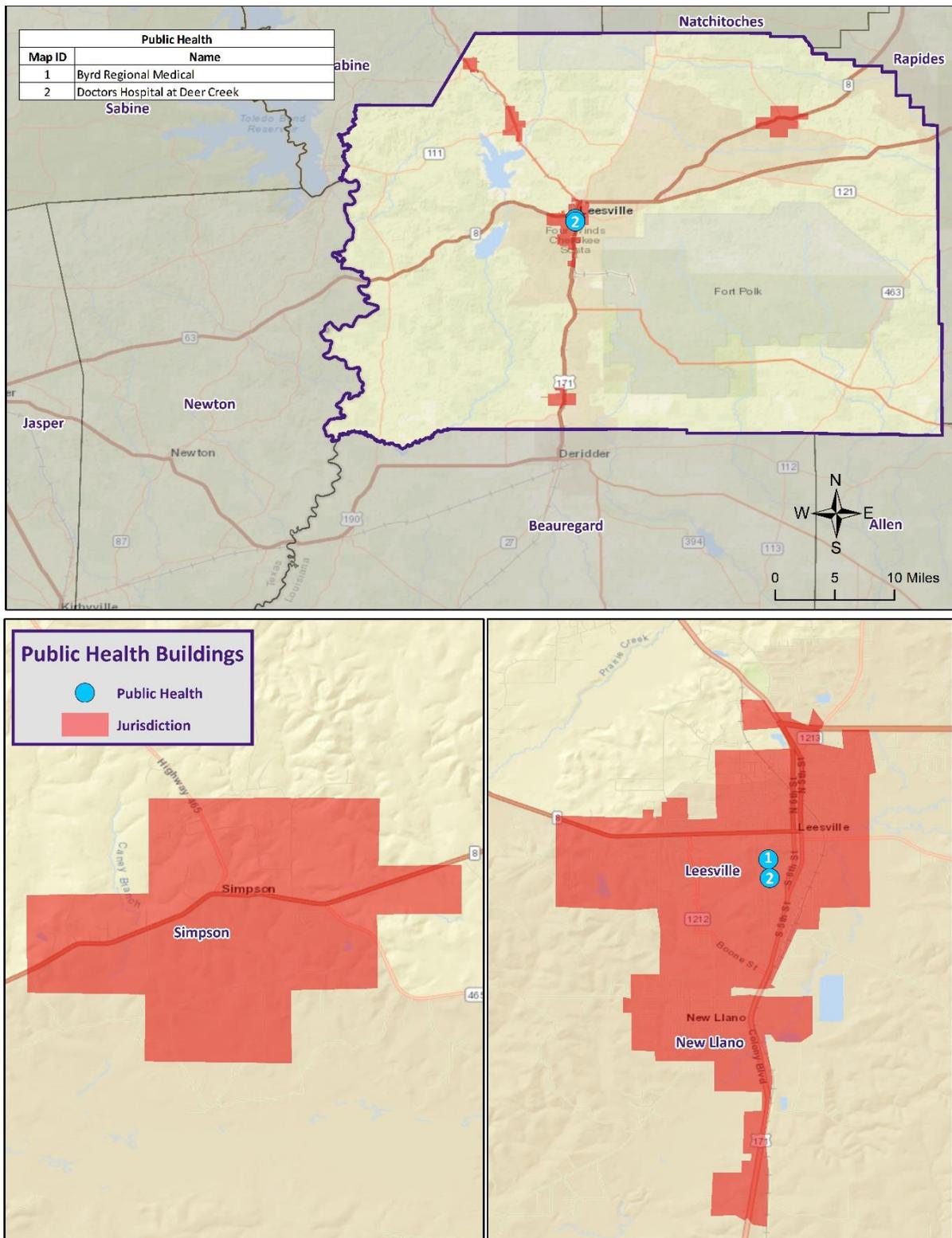


Figure 2-4: Public Health Facilities in Vernon Parish

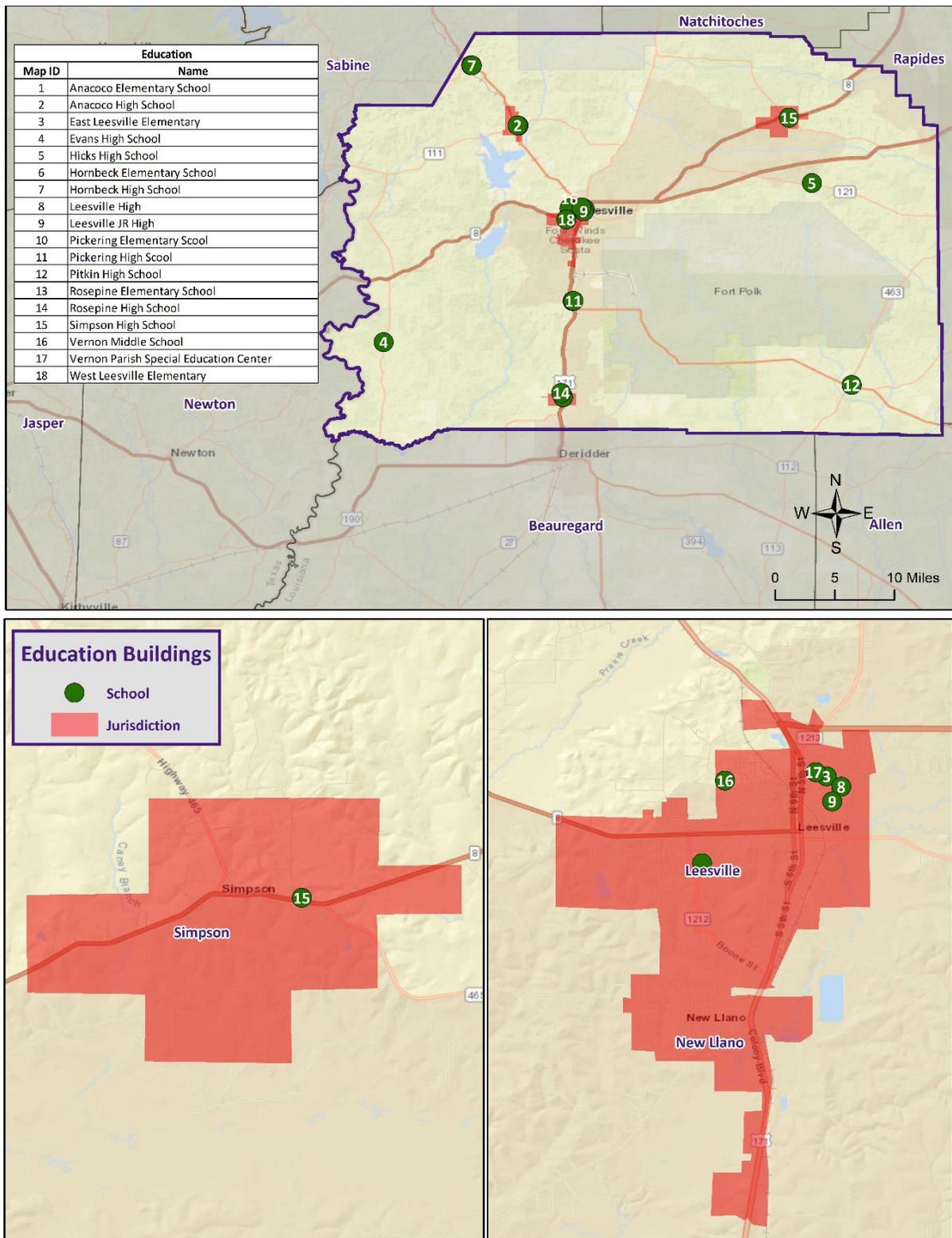


Figure 2-5: Educational Facilities in Vernon Parish

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 Vernon 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 Vernon Parish is based on the Priority Risk Index (PRI). The purpose of the PRI is to prioritize all potential hazards, and then group them into three categories of high, moderate, or low risk to identify and prioritize mitigation opportunities. The PRI is a good practice to use when prioritizing hazards because it provides a standardized numerical value for hazards to be compared. PRI scores were calculated using five categories:

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

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

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

Priority Risk Index and Hazard Risk

Hazard risk is determined by calculating the Risk Factor for each hazard impacting Vernon 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 2-5: 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 2-6: 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 2-7: Risk Assessment for Vernon Parish

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Dam Failure	1	2	1	4	2	1.85
Drought	2	2	4	2	3	2.55
Extreme Heat	1	1	4	1	4	2.05
Flooding	3	4	3	4	3	3.4
Thunderstorms – Hail	4	2	3	3	1	2.7
Thunderstorms – Lightning	1	2	2	3	1	1.75
Thunderstorms – Wind	4	2	3	3	1	2.7
Tornadoes	4	3	2	4	3	3.2
Tropical Cyclones	3	4	4	1	4	3.3
Wildfires	1	3	4	1	2	2.25
Winter Weather	3	2	2	4	2	2.55

Future Development Trends

Vernon Parish experienced a decline in population the years of 2000 and 2020, declining in population from 52,334 in the year 2000 to a population of 48,750 in the year 2020. The incorporated area of Leesville experienced the largest population decline within the parish falling from a populace of 6,612 in 2010 to 5,649 in 2020 (14.6% overall decline) which is then followed by the incorporated area of New Llano (11.6% overall decline), the incorporated area of Hornbeck (10.4% overall decline), the incorporated area of Rosepine (10.2% overall decline), the incorporated area of Simpson (8.3% overall decline), the unincorporated area of Vernon Parish (5.1% overall decline), and the incorporated area of Anacoco (2.1% overall decline).

Hornbeck experienced the largest decline in housing units from 2010 to 2019 falling from 237 in 2010 to 220 in 2019. The incorporated area of Simpson experienced the second largest decline in housing units during this time period with a 0.7% annual decline followed by the incorporated area of Rosepine with a 0.4% annual decline. The unincorporated area of Vernon Parish and the incorporated areas of Anacoco, Leesville, and New Llano experienced an increase 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 tables on the following page show population (2000 to 2020) and housing unit (2000 to 2019) estimates.

Table 2-8: Population Growth Rate for Vernon Parish

Total Population	Vernon Parish	Unincorporated Area	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
1-Apr-00	52,531	40,089	866	435	6,753	2,415	1,390	583
1-Apr-10	52,334	39,539	869	480	6,612	2,504	1,692	638
1-Apr-20	48,750	37,503	851	430	5,649	2,213	1,519	585
Population Growth between 2000 – 2010	-0.4%	-1.4%	0.3%	10.3%	-2.1%	3.7%	21.7%	9.4%
Average Annual Growth Rate between 2000 – 2010	0.0%	-0.1%	0.0%	1.0%	-0.2%	0.4%	2.2%	0.9%
Population Growth between 2010 – 2020	-6.8%	-5.1%	-2.1%	-10.4%	-14.6%	11.6%	-10.2%	-8.3%
Average Annual Growth Rate between 2010 – 2020	-0.76%	-0.57%	-0.23%	-1.16%	-1.62%	1.29%	-1.14%	-0.92%

Table 2-9: Housing Growth Rate for Vernon Parish

Total Housing Units	Vernon Parish	Unincorporated Area	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
1-Apr-00	21,030	15,171	376	227	3,389	1,037	563	267
1-Apr-10	21,433	15,687	370	237	3,068	1,052	731	288
1-Jul-19	22,385	16,654	379	220	3,102	1,055	704	271
Housing Growth between 2000 – 2010	1.9%	3.4%	-1.6%	4.4%	-9.5%	1.4%	29.8%	7.9%
Average Annual Growth Rate between 2000 – 2010	0.2%	0.3%	-0.2%	0.4%	-0.9%	0.1%	3.0%	0.8%
Housing Growth between 2010 – 2019	4.4%	6.2%	2.4%	-7.2%	1.1%	0.3%	-3.7%	-5.9%
Average Annual Growth Rate between 2010 – 2019	0.5%	0.7%	0.3%	-0.8%	0.1%	0.0%	-0.4%	-0.7%

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

*Table 2-10: Estimated Future Impacts, 2018-2030
(Source: Hazus, US Census Bureau)*

Hazard / Impact	Total in Parish (2020)	Hazard Area (2020)	Hazard Area (2025)	Hazard Area (2030)
Flooding Damage				
Structures	22,495	7,829	8,024	8,265
Value of Structures	\$4,174,091,999	\$1,452,725,029	\$1,566,428,939	\$1,714,681,382
# of People	48,379	16,838	16,207	15,481
Tropical Cyclone Damage				
Structures	22,495	22,495	23,056	23,747
Value of Structures	\$4,174,091,999	\$4,174,091,999	\$4,500,795,656	\$4,926,767,072
# of People	48,379	48,379	46,566	44,480

Population within Vernon Parish has dropped moderately whereas housing numbers increased slightly since the last update to the Vernon Parish Hazard Mitigation Plan. With that in mind, Vernon 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 Vernon 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 Vernon Parish Land Use table is provided below. Residential, commercial, and industrial areas account for only 8% of the parish’s land use. Forested land at 614,548 acres is the largest category accounting for 72% of land in the parish. The parish also consists of wetlands (16%), agricultural areas (3%), and water areas (1%).

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

Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	27,186	3%
Wetlands	140,463	16%
Forest Land (Not including forested wetlands)	614,548	72%
Urban/Development	68,552	8%
Water	7,757	1%

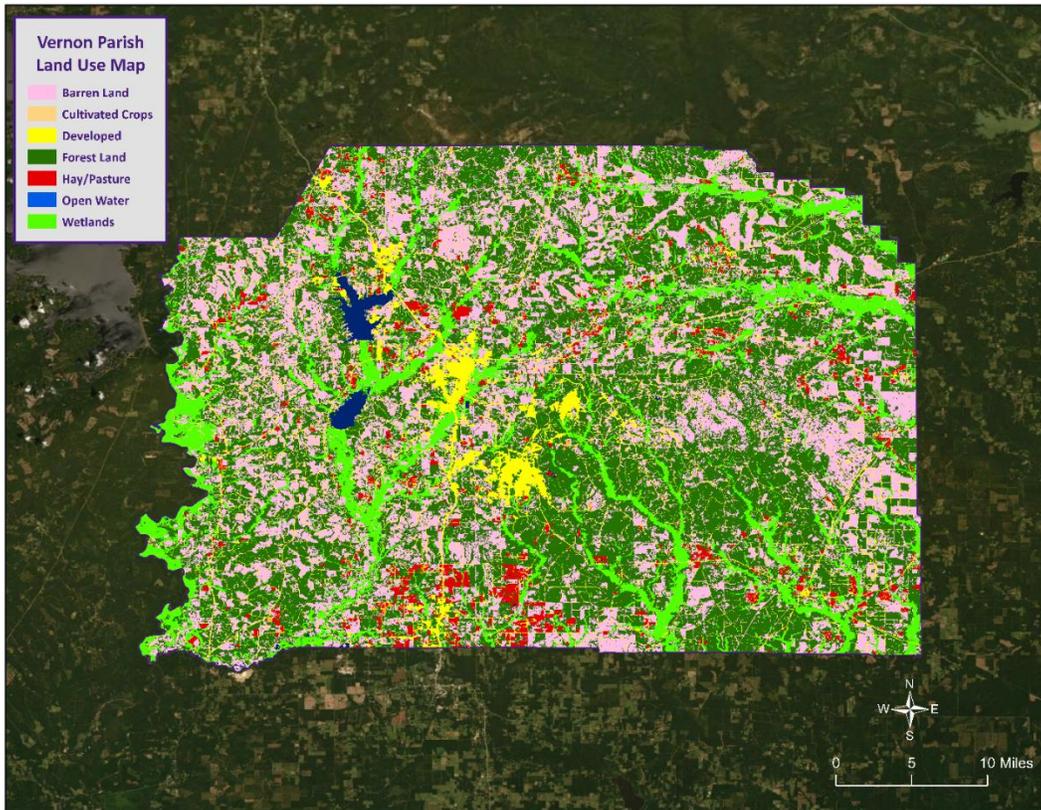


Figure 2-6: Vernon Parish Land Use Map
(Source: USGS Land Use Map)

Hazard Identification

Dam Failure

Dams are water storage, control, or diversion barriers that impound water upstream and in reservoirs. Dams are a vital part of our nation's infrastructure, providing drinking water, flood protection, renewable hydroelectric power, navigation, irrigation, and recreation. These critical daily benefits are also inextricably linked to the potential harmful consequences of a dam failure.

Dam failure is a collapse or breach in a structure. A dam failure can result in severe loss of life, economic disaster, and extensive environmental damage. While most dams have storage volumes small enough that failures have few repercussions, dams with large storage volumes can cause significant flooding downstream. Dam failures often have a rapid rate of onset, leaving little time for evacuation. The first signs of the failure may go unnoticed upon visual inspection of the dam structure. However, continual maintenance and inspection of dams often provide the opportunity to identify possible deficiencies in their earlier stages and can prevent a possible catastrophic failure event.

The duration of the flooding event caused by the failure depends largely on the amount of water and downstream topography. Given smaller volumes of water and topography suited for transporting the water rapidly downstream, the event may only last hours. Because of the lack of seasonality and other predictive factors, a predictive frequency or likelihood of dam failures cannot be determined. However, the National Dam Safety Program (NDPS) produces hazard rankings (high, significant, and low) and definitions of dam structures, based on potential impact. These rankings can be defined as the following:

- **High:** Dams assigned the high hazard potential classification are those where failure or mis operation will probably cause loss of human life.
- **Significant:** Dams assigned the significant hazard potential classification are those dams where failure or mis operation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominately rural or agricultural areas, but could be located in areas with population and significant infrastructure.
- **Low:** Dams assigned the low hazard potential classification are those where failure or mis operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

Dam/reservoir failures can result from any one of or a combination of the following causes:

- Prolonged periods of rainfall and flooding, which cause most failures
- Inadequate spillway capacity, resulting in excess overtopping flows
- Internal erosion caused by embankment or foundation leakage or piping
- Improper maintenance, including failure to remove trees, repair internal seepage problems, replace lost material from the cross-section of the dam and abutments, or maintain gates, valves, and other operational components
- Improper design, including the use of improper construction materials and construction practices
- Negligent operation, including the failure to remove or open gates or valves during high flow periods
- Failure of upstream dams on the same waterway
- Landslides into reservoirs, which cause surges that result in overtopping
- High winds, which can cause significant wave action and result in substantial erosion

- Earthquakes, which typically cause longitudinal cracks at the tops of the embankments that can weaken entire structures.

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

Location

According to the National Inventory of Dams, Vernon Parish has one high hazard dam which is located in the unincorporated areas of Vernon Parish. The dam located in Vernon Parish is shown in the following figure:

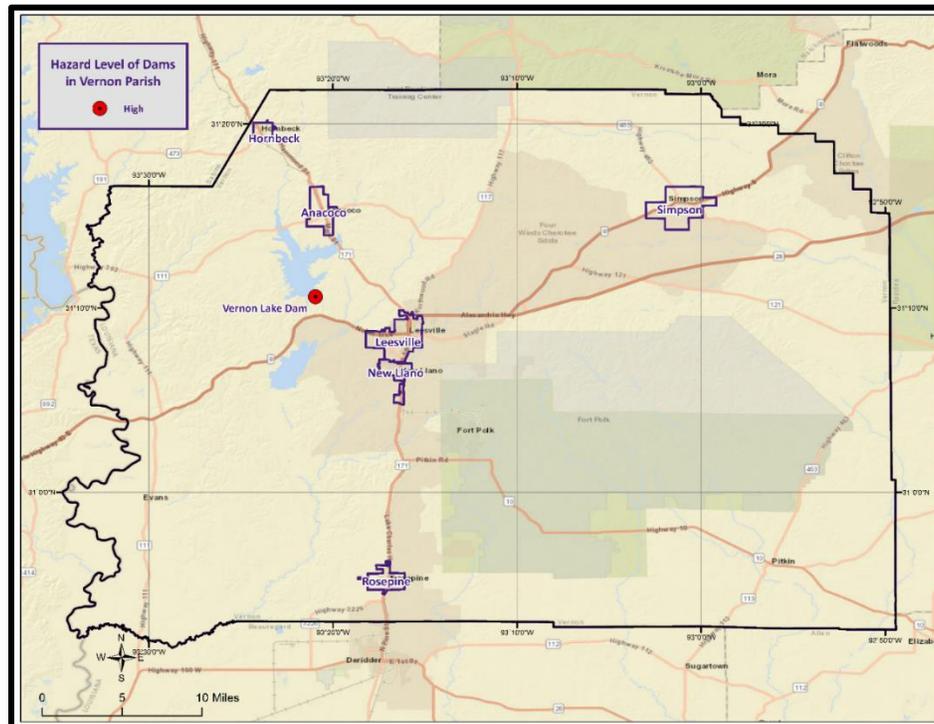


Figure 2-7: National Inventory of Dam Locations in Vernon Parish

Previous Occurrences / Extents

The National Performance of Dams Program (NPDP), a database of dam incidents maintained by Stanford University, lists one dam incident in Louisiana, which occurred in Kisatchie Lake Dam in Grant Parish in 1991. However, there have been no dam failures within the boundaries of Vernon Parish and its jurisdictions. The parish claims a data deficiency on the extent of dam failure for Vernon Lake Dam. Vernon Parish will continue to develop an extent for these dams.

The National Performance of Dams Program (NPDP), a database of dam incidents maintained by Stanford University, lists one dam incident in Louisiana, which occurred in Kisatchie Lake Dam in Grant Parish in 1991. However, there have been no dam failures within the boundaries of Vernon Parish and its jurisdictions. The parish claims a data deficiency on the extent of dam failure for the one high hazard dam located in Vernon Parish. This data deficiency includes potential inundation areas and subsequent impacts related to the overtopping, collapse, or breaching of the dam located within Vernon Parish. As these inundation zones haven't yet been identified, Vernon Parish will continue to develop an extent and additional relevant data associated with this hazard.

Vernon Parish takes on the responsibility of working with local dam owners and the state of Louisiana to ensure the structural integrity and mitigation efforts of any high hazard dams in the parish. In addition, an emergency action plan is available to the parish that will address any issues that arise in the wake of dam failure. Vernon Parish's coordination efforts with state and local dam owners can be available upon request by contacting the Vernon Parish Office of Homeland Security and Emergency Preparedness.

Frequency / Probability

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

Estimated Potential Losses

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

*Table 2-12: Dams and Risk Associated with each in Vernon Parish
(Source: National Inventory of Dams)*

System	Rating	Height (ft)	Storage (Acre-Feet)	Dam Type	Last Inspection Date
Vernon Lake Dam	High	56	99,473	Earth	5/27/2020

Impacts of Climate Change

Extreme precipitation, primarily the type that contributes to flash flooding and not widespread areal flooding, is expected to increase due to climate change in Vernon Parish and the jurisdictions of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson. While this may not contribute to the traditional definition of a dam failure, it could increase the chances of a dam overtopping.

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

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

Vulnerability

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

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 2-13 displays the range and Palmer classifications of the PDSI index while Figure 2-8 displays the current drought monitor for the state of Louisiana and its parishes.

Table 2-13: 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 abnormally dry and moderate drought conditions currently exists within Vernon Parish.

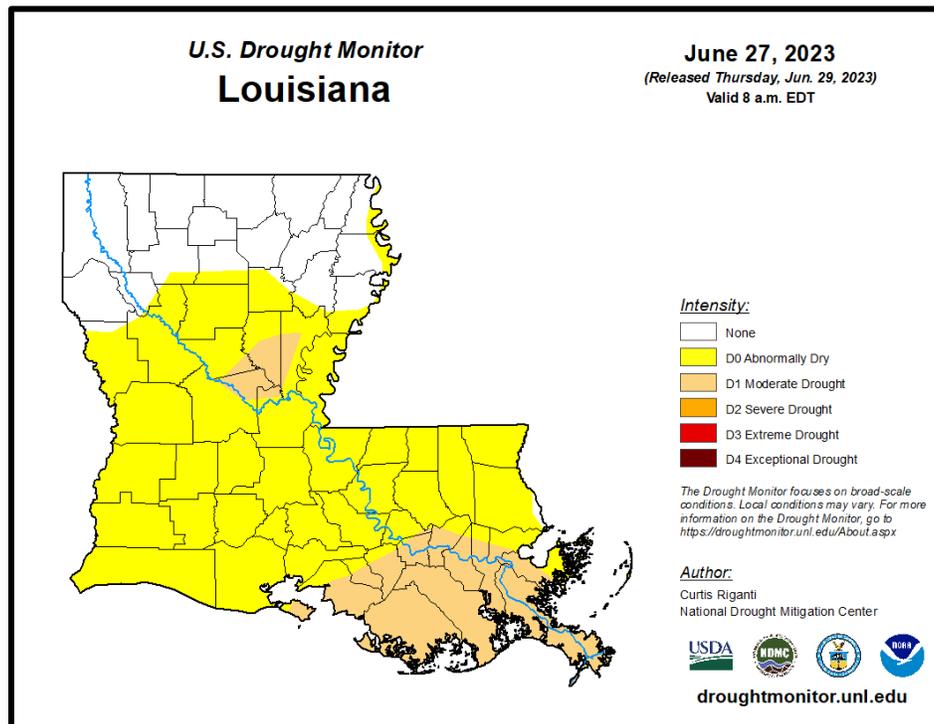


Figure 2-8: United States Drought Monitor for the State of Louisiana and its Parishes. (Source: The National Drought Mitigation Center)

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

Previous Occurrences / Extent

Historically, there have been five drought incidents in Vernon Parish. Drought events have ranged from Mild to Extreme per the National Climatic Data Center. Since the last update in 2016, there have been two drought events within the boundaries of Vernon Parish. Below is a brief synopsis of those events:

Table 2-14: Historical Droughts in Vernon Parish since the 2016 Vernon Parish HMP Update

Date	Extents	Drought Magnitude	Estimated Damages
May 1996	Drought conditions increased during the month of May across all of southwest and central Louisiana. Rainfall totals from January to May were between 12 and 15 inches below normal across the region, making this the driest year on record in many places.	D2	\$0
May to July 1998	Drought conditions were in full force by mid May across southwest and central Louisiana. Most places saw less half an inch of rain, dating back to the last half of April.	D2	\$0
February 2000	Southwest and central Louisianans were in a severe drought during the month of February, as less than one inch of rain fell across the region. This was one of the five driest Februarys on record.	D2	\$0
December 2000	Lack of rainfall across the region has led to a severe drought across portions of Louisiana. This includes severe drought (D2) level in Vernon Parish.	D2	\$10,000

Frequency / Probability

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

Estimated Potential Losses

According to the NCEI Storm Events Database, there have been four drought events which have impacted Vernon Parish which resulted in limited to no 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 Vernon Parish.

Table 2-15: Agricultural Exposure by Crop Type for Droughts in Vernon Parish (Source: LSU AG Center 2018 Parish Totals)

Agricultural Exposure by Type for Drought		
Forestry	Hay	Peaches
\$79,455,102	\$1,755,131	\$36,755

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

Impacts of Climate Change

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

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

*Table 2-16: National Risk Index (NRI) Summarization of Drought Occurrences for the Parish
(Source: National Risk Index)*

Expected Annual Losses	Overall Risk Rating
No Rating	No Rating

Drought-induced water scarcity and agricultural failures can lead to population displacement. When water and food resources become scarce, vulnerable communities may be forced to migrate to areas with more favorable conditions, which can lead to increased competition and conflicts over limited resources. Displacement also puts additional strains on host communities, exacerbating social, economic, and political tensions.

Droughts associated with climate change can have adverse health effects on vulnerable populations. Water scarcity and poor sanitation conditions can increase the risk of waterborne diseases, such as diarrhea and cholera. Droughts can also lead to malnutrition, as food supplies become scarce, and prices rise. Moreover, the stress and anxiety caused by prolonged droughts can have detrimental effects on mental health within vulnerable communities.

Addressing the impacts of climate change on drought and vulnerable populations requires a multi-faceted approach. This includes implementing sustainable water management practices, promoting drought-resistant agricultural techniques, improving early warning systems for droughts, supporting vulnerable communities with access to clean water and food, examining future land use patterns, and implementing climate adaptation strategies that enhance resilience and reduce vulnerability to drought events.

Vulnerability

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

Excessive Heat

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

However, temperature alone is insufficient to describe the stress placed on humans (as well as flora and fauna) in hot weather. It is crucial to consider the effect of relative humidity since it is essential to the body's ability to perspire and cool. Once air temperature reaches 95° F, perspiration becomes a very significant biophysical mechanism to ensure heat loss. Perspiration is ineffective as a cooling mechanism if the water cannot evaporate (i.e., sweating in high relative humidity is reduced as compared to during dry conditions). To communicate this relationship between temperature and humidity, the National Weather Service (NWS) developed the Heat Index (HI), which provides a warning system based on a combination of air temperature and relative humidity. The HI is presented in [Figure 2-9](#) and [Table 2-17](#) summarizes the HI risk levels and protective measures. The NWS devised the index for shady, light wind conditions, and thus advises that the HI value can be increased by as much as 15 F° if a person is in direct sunlight, and that strong winds of hot, dry air can be extremely hazardous.

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

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

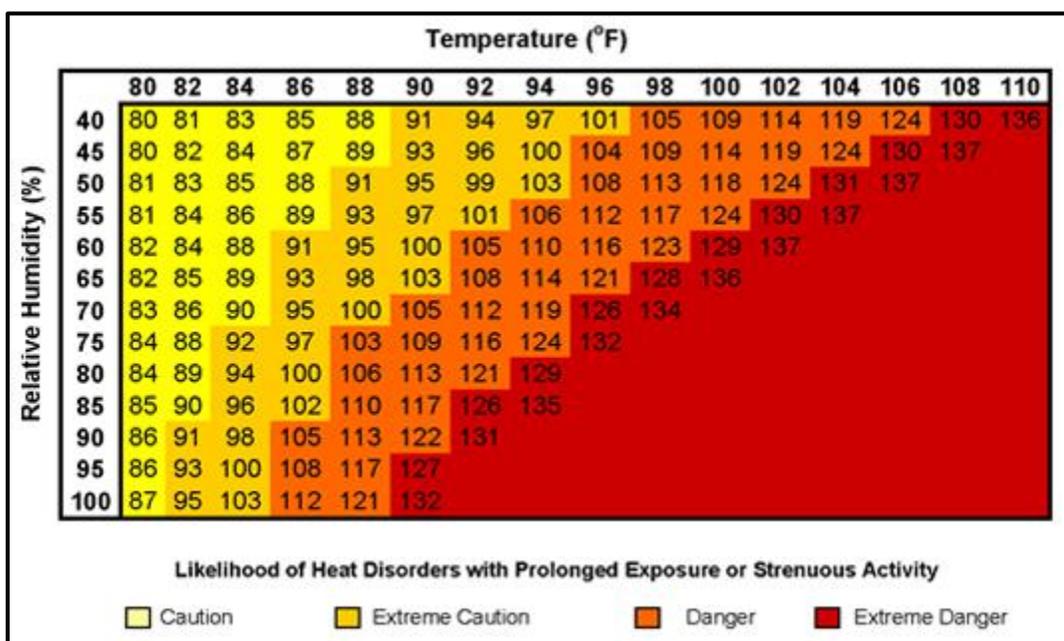


Figure 2-9: Heat Index Advisor based on Air Temperature (°F) and Relative Humidity (Source: National Weather Service)

Table 2-17: Summary of Heat Index Risk Levels with Protective Measures (Source: National Weather Service)

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

Location

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

Previous Occurrences / Extent

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

Frequency / Probability

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

Estimated Potential Losses

According to the NCEI Storm Events Database, there have been no excessive heat events resulting in injuries, deaths, or crop damages in Vernon Parish.

Impacts of Climate Change

Climate change has caused a rise in extreme heat events within Vernon Parish and the jurisdictions of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson, especially in urban areas that experience higher temperatures due to the urban heat island effect. Cities in Louisiana are experiencing, at a minimum, two more weeks of extreme heat (days over 95° F) than compared to 50 years ago. With the rise in extreme heat events, there will be several environmental and economic implications within the state of Louisiana including the disruption of the natural system such as agriculture, forestry, fishing, mining, manufacturing, transportation, and utilities.

The National Risk Index (NRI) includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the parish and Census tract level. The following table provides an overview of each category at the parish level for excessive heat.

*Table 2-18: National Risk Index (NRI) Summarization of Excessive Heat Occurrences for the Parish
(Source: National Risk Index)*

Expected Annual Losses	Overall Risk Rating
Relatively Low	Relatively Low

Vulnerable populations often face socioeconomic disparities that contribute to their increased vulnerability to heatwaves. Limited access to air conditioning, healthcare services, and cooling centers can exacerbate the health risks associated with excessive heat. Additionally, low-income communities may lack the financial resources to adequately adapt to heatwaves, such as purchasing cooling equipment or renovating housing to improve insulation.

To address the impacts of excessive heat on vulnerable populations, it is crucial to implement heatwave preparedness and response strategies. These may include providing cooling centers and shelters during heatwaves, improving access to air conditioning for vulnerable individuals, enhancing urban planning to incorporate green spaces and heat-reducing infrastructure, and implementing public health campaigns to raise awareness about heat-related risks and protective measures. Additionally, addressing the underlying socioeconomic disparities through targeted policies and support can help reduce the vulnerability of marginalized communities to heatwaves. The hazard of excessive heat has no direct impact on land use planning.

Vulnerability

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

Flooding

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

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

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

Excess precipitation, produced from thunderstorms or hurricanes, is often the major initiating condition for flooding, and Louisiana can have high rainfall totals at any time of day or year. During the cooler months, slow-moving frontal weather systems produce heavy rainfalls, while the summer and autumn seasons produce major precipitation in isolated thunderstorm events (often on warm afternoons) that may lead to localized flooding. During these warmer seasons, floods are overwhelmingly of the flash flood variety, as opposed to the slower-developing river floods caused by heavy stream flow during the cooler months.

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

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

- **Riverine flooding** occurs along a river or smaller stream. It is the result of runoff from heavy rainfall or intensive snow or ice melt. The speed with which riverine flood levels rise and fall depends not only on the amount of rainfall, but even more on the capacity of the river itself, as well as the shape and land cover of its drainage basin. The smaller the river, the faster that water levels rise and fall. Thus, the Mississippi River levels rise and fall slowly due to its large capacity. Generally, elongated and intensely developed drainage basins will reach faster peak discharges and faster falls than circular-shaped and forested basins of the same area.
- **Flash flooding** occurs when locally intense precipitation inundates an area in a short amount of time, resulting in local stream flow and drainage capacity being overwhelmed.
- **Ponding** occurs when concave areas (e.g., parking lots, roads, and clay-lined natural low areas) collect water and are unable to drain.

- **Backwater flooding** occurs when water slowly rises from a normally unexpected direction where protection has not been provided. A model example is the flooding that occurred in LaPlace during Hurricane Isaac in 2012. Although the town was protected by a levee on the side facing the Mississippi River, floodwaters from Lake Maurepas and Lake Pontchartrain crept into the community on the side of town opposite the Mississippi River.
- **Urban flooding** is similar to flash flooding but is specific to urbanized areas. It takes place when storm water drainage systems cannot keep pace with heavy precipitation, and water accumulates on the surface. Most urban flooding is caused by slow-moving thunderstorms or torrential rainfall.
- **Coastal flooding** can appear similar to any of the other flood types, depending on its cause. It occurs when normally dry coastal land is flooded by seawater but may be caused by direct inundation (when the sea level exceeds the elevation of the land), overtopping of a natural or artificial barrier, or the breaching of a natural or artificial barrier (i.e., when the barrier is broken down by the sea water). Coastal flooding is typically caused by storm surge, tsunamis, or gradual sea level rise.

Historically, in Vernon 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 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 2-10*.

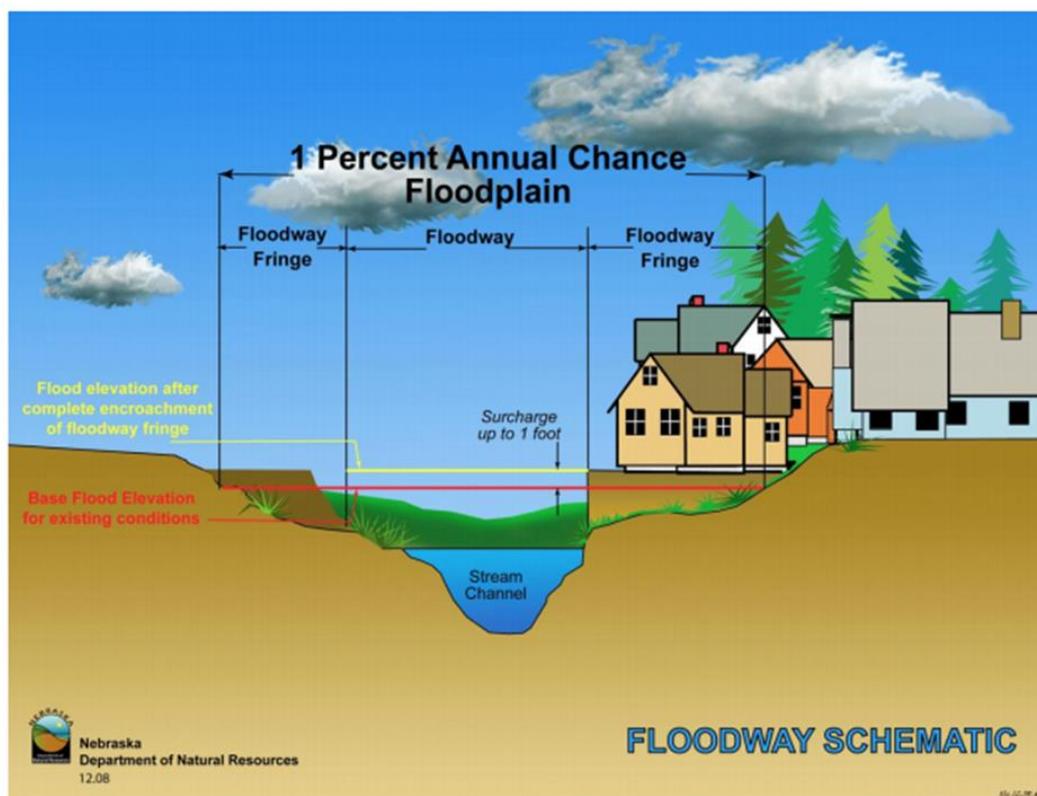


Figure 2-10: Schematic of 100-year Floodplain. The Special Flood Hazard Area (SFHA) extends to the end of the floodway fringe

(Source: Nebraska Department of Natural Resources)

A SFHA is the land area covered by the floodwaters of the base flood (red line in *Figure 2-10*), 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 Vernon Parish are provided in the table below:

Table 2-19: Repetitive Loss Structures for Vernon Parish

Jurisdiction	Number of Structures	Residential	Commercial	Government	Total Claims	Total Claims Paid	Average Claim Paid
Unincorporated Vernon Parish	49	45	4	0	126	4,927,462	\$39,107
Anacoco	0	0	0	0	0	\$0	\$0
Hornbeck	0	0	0	0	0	\$0	\$0
Leesville	12	11	1	0	34	\$900,326	\$26,480
New Llano	0	0	0	0	0	\$0	\$0
Rosepine	0	0	0	0	0	\$0	\$0
Simpson	0	0	0	0	0	\$0	\$0
Total	61	56	5	0	160	\$5,827,788	\$36,424

All 61 repetitive loss structure were geocoded in order to provide an overview of where the repetitive loss structure was located. Figure 2-11 shows the approximate location of the structure, while Figure 2-12 shows where the highest concentration of repetitive loss structures is located. Through the repetitive loss map, it is clear the primary concentrated area of repetitive loss structures is focused in and around the incorporated areas of Leesville and New Llano, as well as the area around Vernon Lake.

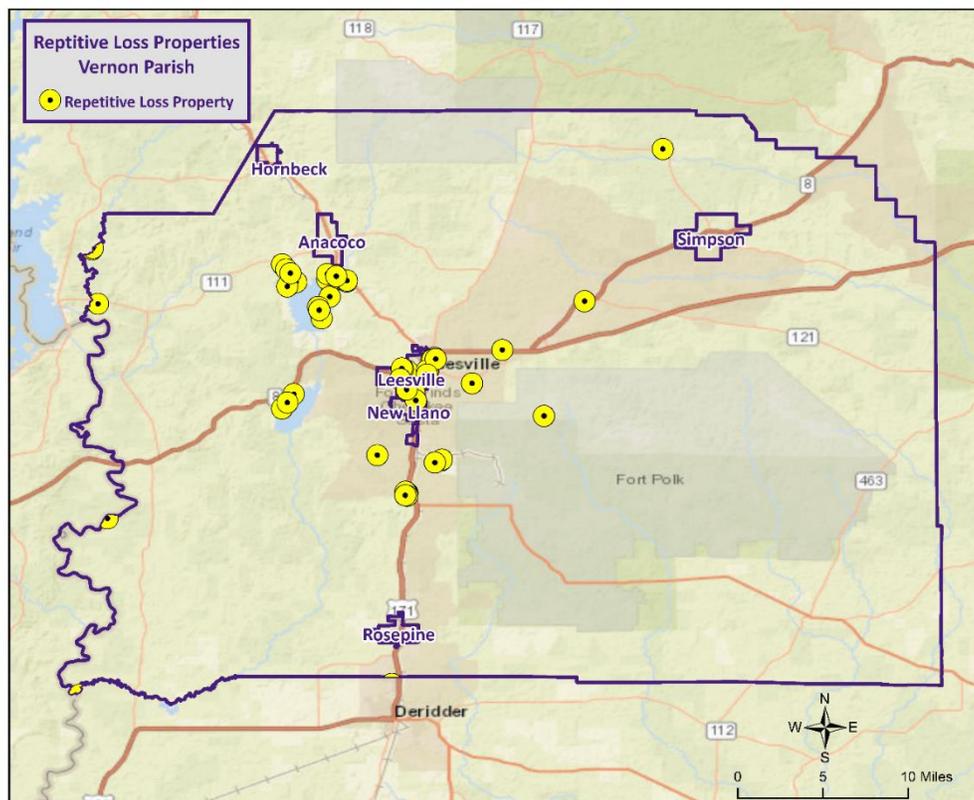


Figure 2-11: Repetitive Loss Properties in Vernon Parish

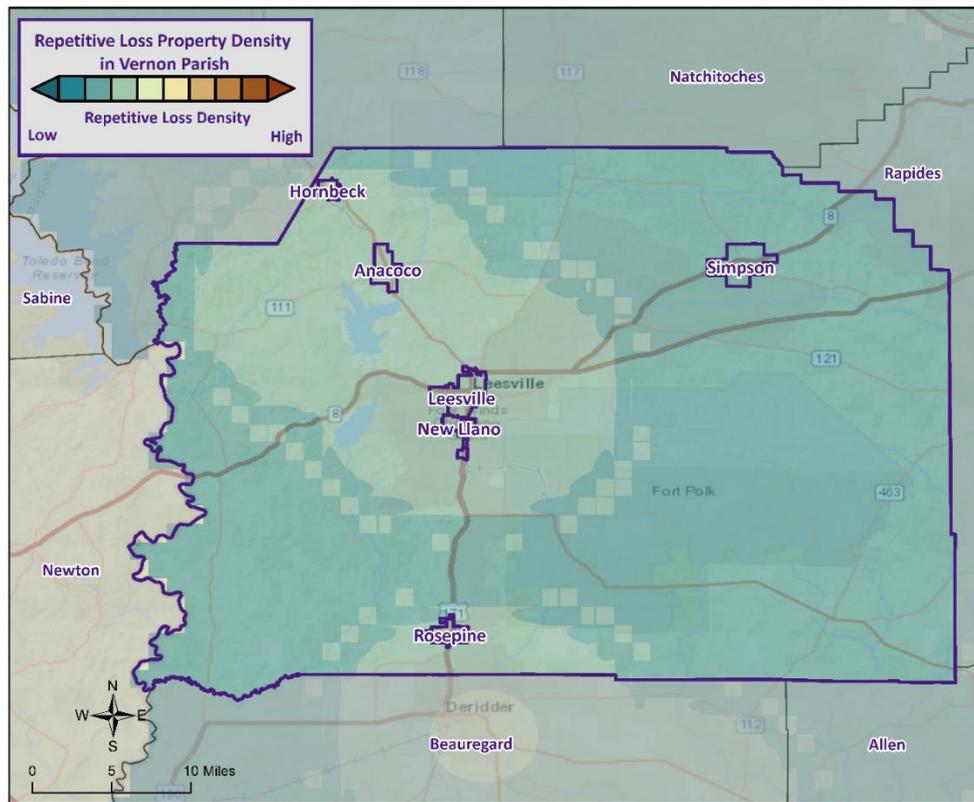


Figure 2-12: Repetitive Loss Property Densities in Vernon Parish

National Flood Insurance Program

Flood insurance statistics indicate that Vernon Parish has 122 flood insurance policies with the NFIP, with total annual premiums of \$117,455. Vernon Parish and the jurisdictions of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson are all participants in the NFIP. Vernon Parish and all of its jurisdictions will continue to adopt and enforce floodplain management requirements, including regulating new construction in Special Flood Hazard Areas, making substantial improvement and/or damage determinations, or determining the necessary permits required of owners to bring a substantially improved/damaged structure back into compliance. The parish will also continue to monitor activities including local requests for new map updates. Flood insurance statistics and additional NFIP participation details for Vernon Parish and its jurisdictions is provided in the following tables:

Table 2-20: Summary of NFIP Policies for Vernon Parish

Location	No. of Insured Structures	Total Insurance Coverage Value	Annual Premiums Paid	Insurance Claims Filed Since 1978	Total Loss Payments
Vernon Parish	0	\$0	\$0	0	\$0
Anacoco	4	\$770,000	\$3,249	0	\$0
Hornbeck	0	\$0	\$0	0	\$0
Leesville	76	\$16,461,700	\$95,517	55	\$757,696
New Llano	28	\$8,050,100	\$12,747	2	\$21,836
Rosepine	11	\$3,185,000	\$4,700	2	\$8,884
Simpson	3	\$735,000	\$1,242	0	\$0
Total	122	\$29,201,800	\$117,455	59	\$788,416

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

CID	Community Name	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Date Joined the NFIP	Tribal
220228#	Vernon Parish	7/26/1977	3/1/1987	3/20/2018	3/1/1987	No
220046#	Anacoco	3/1/1987	3/11/2011	3/20/2018	9/2/2009	No
220332#	Hornbeck	8/15/1975	6/1/2005	3/20/2018	6/1/2005	No
220229B	Leesville	11/23/1973	1/17/1986	3/20/2018	1/17/1986	No
220340B	New Llano	4/9/1976	7/18/1985	3/20/2018	7/18/1985	No
220346#	Rosepine	8/15/1975	10/19/1982	3/3/11 (M)	10/19/1982	No
220311#	Simpson	8/8/1975	3/3/2011	3/3/11 (M)	9/16/2010	No

According to the Community Rating System (CRS) list of eligible communities dated October 1, 2023, neither Vernon Parish nor the incorporated areas of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson 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 Vernon 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 Vernon Parish experiences.

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

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

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

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

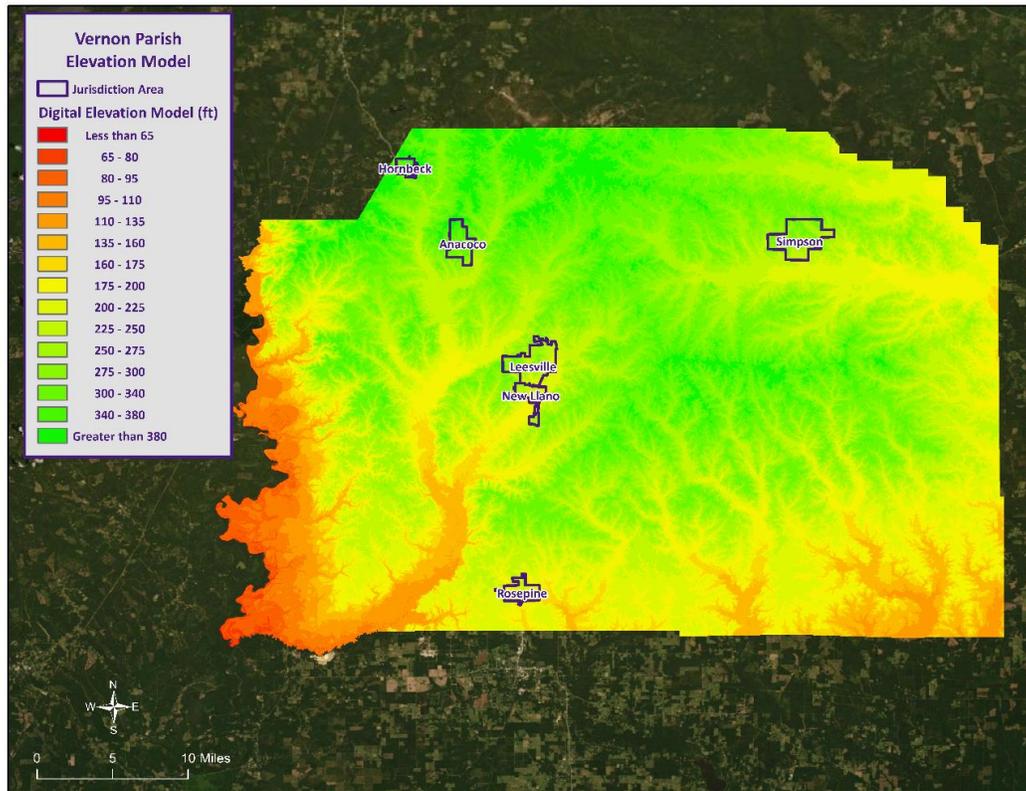


Figure 2-13: Elevation throughout Vernon Parish

The digital elevation model (DEM) in the figure below for Vernon 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 65 feet (NAVD88) to over 380 feet (NAVD88). The highest elevation in the parish is approximately 384 feet (NAVD88), located in the incorporated area of Hornbeck. The incorporated areas of Vernon Parish have average elevations ranging from 217 feet (NAVD88) to 335 feet (NAVD88). The incorporated area of Anacoco has an average elevation of approximately 335 feet (NAVD88), Hornbeck has an average elevation of 325 feet (NAVD88), Leesville has an average elevation of 254 feet (NAVD88), New Llano has an average elevation of 217 feet (NAVD88), Rosepine has an average elevation of 230 feet (NAVD88), and Simpson has an average elevation of 259 feet (NAVD88).

Location

Vernon Parish has experienced significant flooding in its history and can expect more in the future. Many parts of the western portion of the parish that border the Sabine River are located in the 100-year floodplain. Another area of concern is Brushy Creek which causes significant flooding when heavy rains impact the area.

Based on previous flood events, the worst-case scenarios are based on several different types of flooding events. Storm water excesses and riverine flooding primarily affect the low-lying areas of the parish, and flood depths of up to five feet can be expected in the unincorporated areas of the parish. The incorporated areas of Leesville, New Llano, Rosepine, and Anacoco can expect flood depths from three to five feet, while the incorporated area of Hornbeck can expect flooding levels of approximately one to three feet. The incorporated area of Simpson can expect flood levels of approximately two feet.

The following is a flood zone map displaying 100- and 500-year flood zones for Vernon Parish:

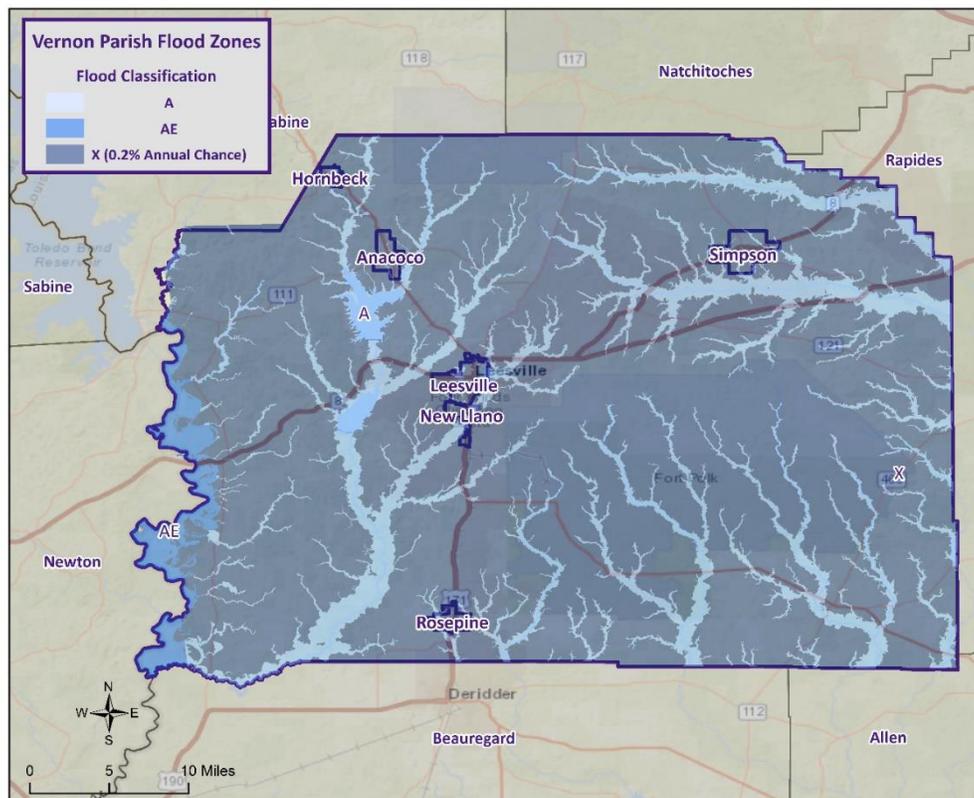


Figure 2-14: Vernon Parish Areas within the Flood Zones

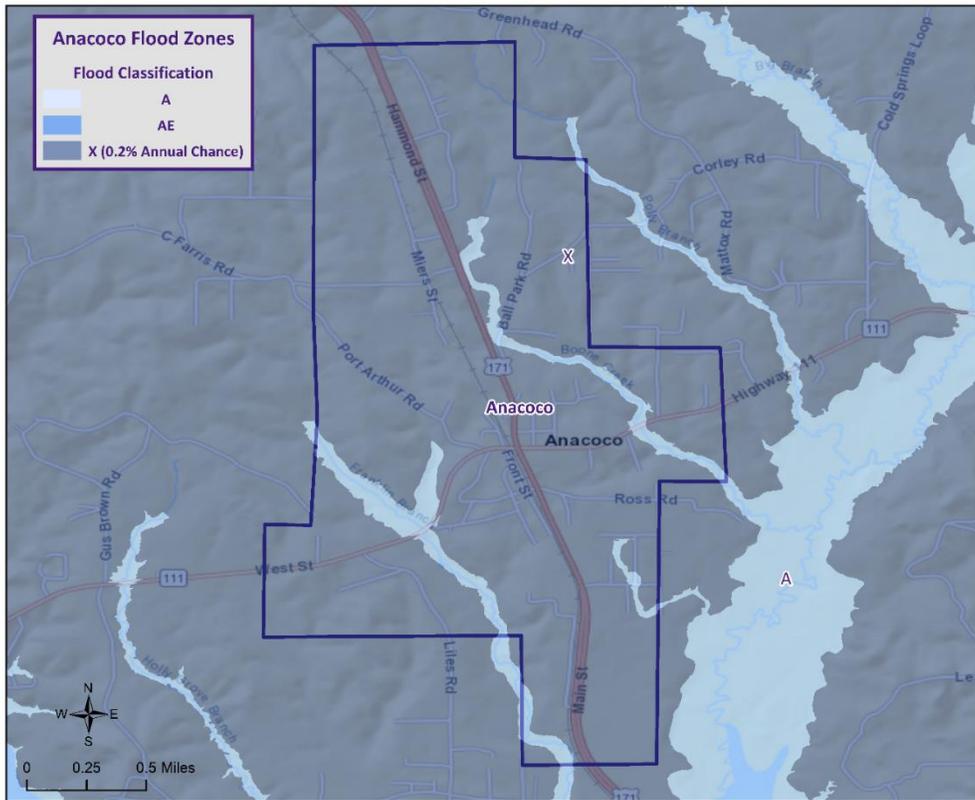


Figure 2-15: Anacoco Areas within the Flood Zones

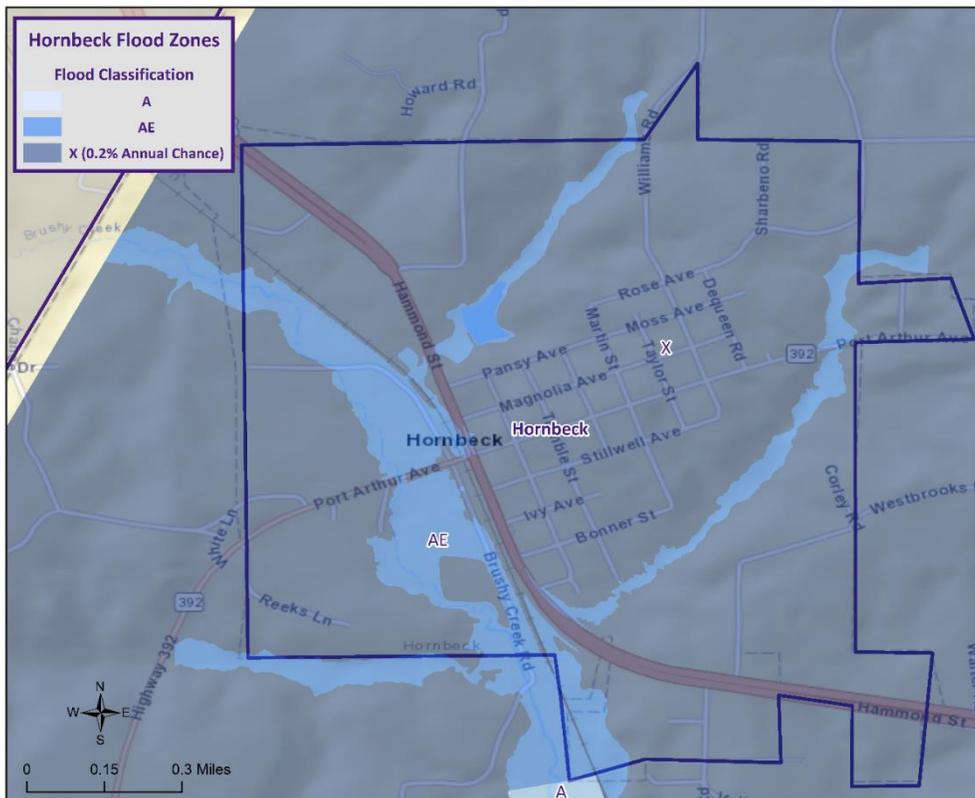


Figure 2-16: Hornbeck Areas within the Flood Zones

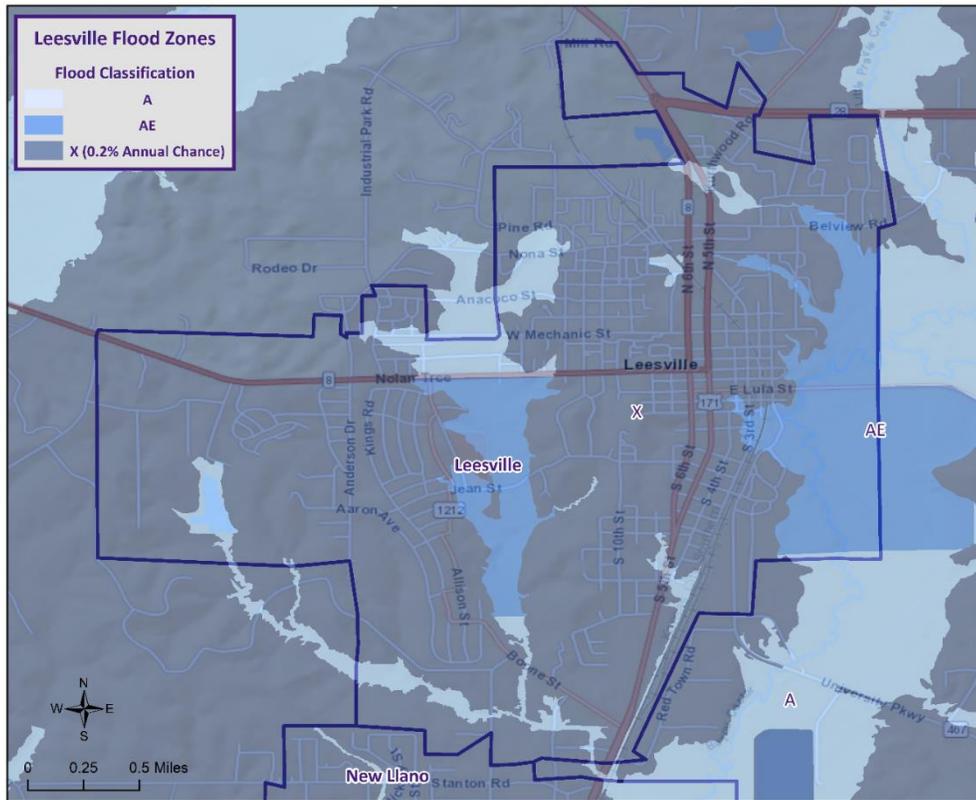


Figure 2-17: Leesville Areas within the Flood Zones

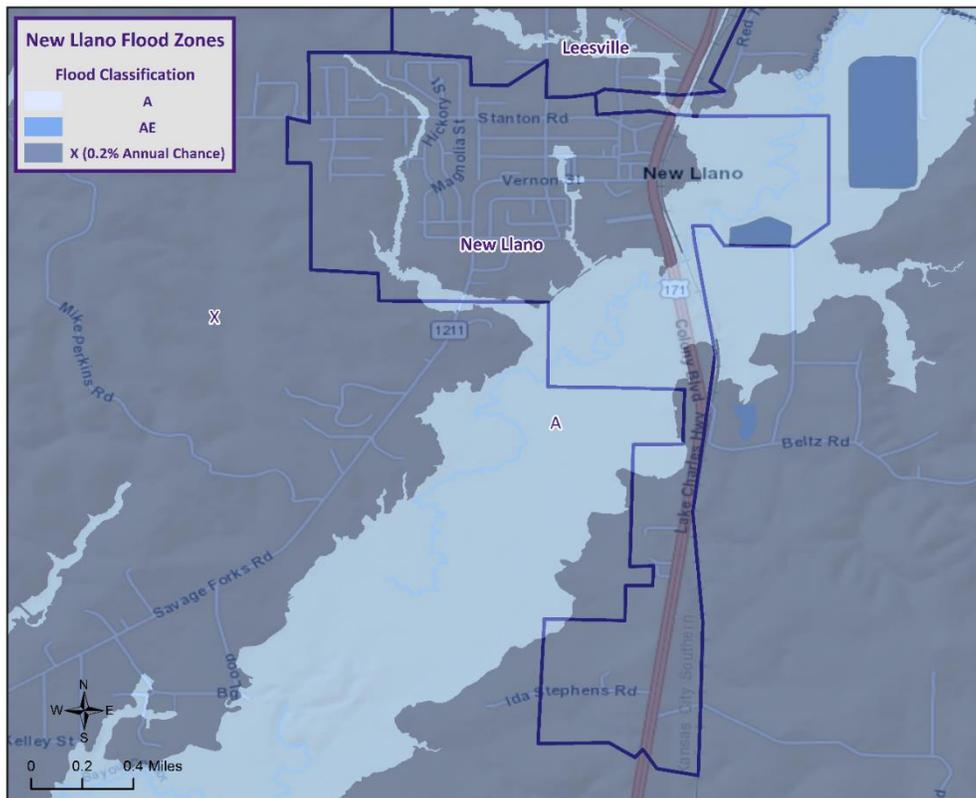


Figure 2-18: New Llano Areas within the Flood Zones

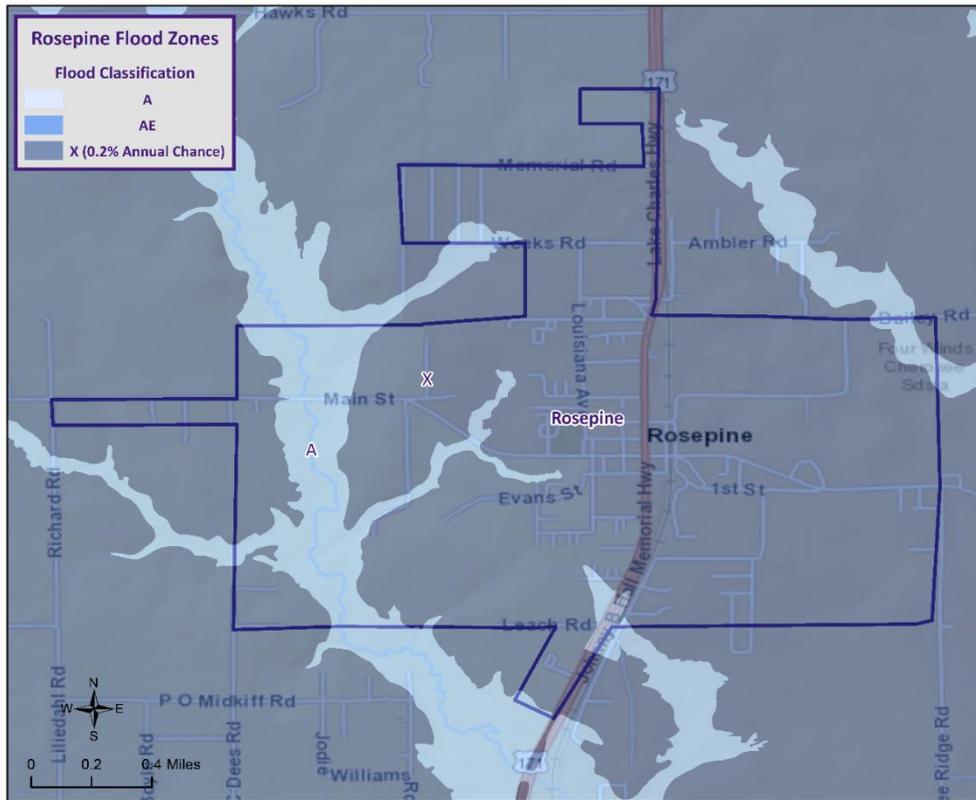


Figure 2-19: Rosepine Areas within the Flood Zones

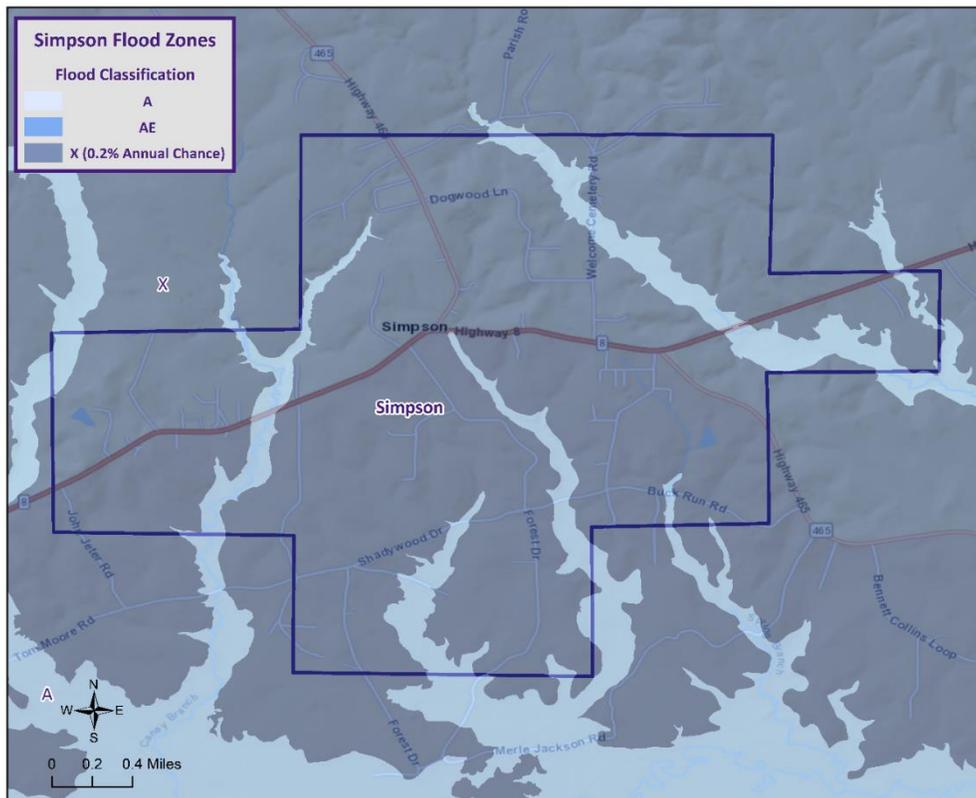


Figure 2-20: Simpson Areas within the Flood Zones

Previous Occurrences / Extents

Historically, there have been 29 flooding events that have caused significant flooding in Vernon Parish and its jurisdictions between 1990 and 2022. Below is a brief synopsis of the flooding events which occurred since the last Vernon Parish HMP Update in 2016.

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

Date	Extents	Type of Flooding	Estimated Damages	Location
April 2, 2017	Widespread heavy rain fell across Central Louisiana with amounts ranging from 6 to 10 inches. Numerous roads were reported flooding during the event along with some vehicles. The ASOS sites KBKB and KPOE reported 9.74 and 9.30 inches respectively.	Flash Flood	\$100,000	KNIGHT
May 3, 2017	Significant street flooding was reported around Leesville. Some streets were too deep to pass.	Flash Flood	\$0	LEESVILLE
September 28, 2021	Slow moving heavy thunderstorm produced flooding at Fort Polk and along multiple roads in Vernon Parish. NWS equipment flooded at Fort Polk.	Flash Flood	\$25,000	BURR FERRY

Frequency / Probability

The NCEI Storm Events Database identified 29 flooding events within the Vernon Parish planning area since 1990. The table below shows the probability and return frequency for each jurisdiction.

Table 2-23: Annual Flood Probabilities for Vernon Parish

Jurisdiction	Annual Probability	Return Frequency
Unincorporated Vernon Parish	44%	1 event every 2 to 3 years
Anacoco	16%	1 event every 6 years
Hornbeck	9%	1 event every 10 years
Leesville	31%	1 event every 3 years
New Llano	9%	1 event every 10 years
Rosepine	16%	1 event every 6 years
Simpson	9%	1 event every 10 years

Based on historical record, the overall flooding probability for the entire Vernon Parish Planning area is 93% with 26 events occurring over a 30-year period.

Estimated Potential Losses

Using the Hazus Flood Model, the 100-year flood scenario, along with the Parish DFIRM, was analyzed to determine losses from this worst-case scenario. *Table 2-24* shows the total economic losses that would result from this occurrence.

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

Jurisdiction	Estimated Total Losses from 100-Year Flood Event
Unincorporated Vernon Parish	\$1,272,000
Anacoco	\$47,000
Hornbeck	\$204,000
Leesville	\$525,000
New Llano	\$510,000
Rosepine	\$49,000
Simpson	\$36,000
Total	\$2,643,000

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

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

Unincorporated Vernon Parish	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$14,000
Commercial	\$50,000
Government	\$0
Industrial	\$132,000
Religious / Non-Profit	\$158,000
Residential	\$918,000
Schools	\$0
Total	\$1,272,000

*Table 2-26: Estimated 100-year Flood Losses for Anacoco by Sector
(Source: Hazus)*

Anacoco	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$4,000
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$43,000
Schools	\$0
Total	\$47,000

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

Hornbeck	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$5,000
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$74,000
Residential	\$125,000
Schools	\$0
Total	\$204,000

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

Leesville	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$14,000
Government	\$0
Industrial	\$43,000
Religious / Non-Profit	\$47,000
Residential	\$421,000
Schools	\$0
Total	\$525,000

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

New Llano	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$1,000
Commercial	\$12,000
Government	\$0
Industrial	\$32,000
Religious / Non-Profit	\$95,000
Residential	\$370,000
Schools	\$0
Total	\$510,000

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

Rosepine	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$49,000
Schools	\$0
Total	\$49,000

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

Simpson	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$4,000
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$32,000
Schools	\$0
Total	\$36,000

Threat to People

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

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

Number of People Exposed to Flood Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
Unincorporated Vernon Parish	39,539	16,198	41.0%
Anacoco	869	101	11.6%
Hornbeck	480	39	8.1%
Leesville	6,612	1,255	19.0%
New Llano	2,504	506	20.2%
Rosepine	1,692	79	4.7%
Simpson	638	36	5.6%
Total	52,334	18,214	34.8%

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

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

Unincorporated Vernon Parish		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	16,198	41.0%
Persons Under 5 Years	1,474	9.1%
Persons Under 18 Years	4,325	26.7%
Persons 65 Years and Over	1,652	10.2%
White	12,602	77.8%
Minority	3,596	22.2%

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

Anacoco		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	101	11.6%
Persons Under 5 Years	7	7.4%
Persons Under 18 Years	20	19.9%
Persons 65 Years and Over	14	14.2%
White	94	93.2%
Minority	7	6.8%

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

Hornbeck		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	39	8.1%
Persons Under 5 Years	2	5.0%
Persons Under 18 Years	9	21.9%
Persons 65 Years and Over	5	12.9%
White	37	96.0%
Minority	2	4.0%

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

Leesville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,255	19.0%
Persons Under 5 Years	94	7.5%
Persons Under 18 Years	217	17.3%
Persons 65 Years and Over	164	13.0%
White	679	54.1%
Minority	576	45.9%

*Table 2-37: Vulnerable Populations Susceptible to a 100-year Flood Event in New Llano
(Source: Hazus)*

New Llano		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	506	20.2%
Persons Under 5 Years	44	8.6%
Persons Under 18 Years	94	18.5%
Persons 65 Years and Over	38	7.5%
White	219	43.3%
Minority	287	56.7%

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

Rosepine		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	79	4.7%
Persons Under 5 Years	7	8.3%
Persons Under 18 Years	15	18.6%
Persons 65 Years and Over	10	13.2%
White	66	83.8%
Minority	13	16.3%

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

Simpson		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	36	5.6%
Persons Under 5 Years	2	6.0%
Persons Under 18 Years	7	19.6%
Persons 65 Years and Over	5	12.5%
White	34	95.5%
Minority	2	4.6%

Impacts of Climate Change

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

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

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

*Table 2-40: National Risk Index (NRI) Summarization of Flooding Occurrences for the Parish
(Source: National Risk Index)*

Expected Annual Losses	Overall Risk Rating
Relatively Moderate	Relatively Moderate

Vulnerable populations living in floodplain areas or near rivers are at higher risk of displacement, property damage, and loss of essential services and infrastructure during riverine flooding events. Flooding events associated with climate change can pose significant health risks to vulnerable populations. Floodwaters can be contaminated with pollutants, sewage, and harmful chemicals, increasing the risk of waterborne diseases and infections. Disruption of sanitation systems and access to clean water during floods can exacerbate health issues, particularly for communities with limited resources and inadequate healthcare infrastructure.

To address the impacts of flooding on vulnerable populations, it is crucial to implement comprehensive strategies that include:

- Improved early warning systems and evacuation plans to ensure the timely and safe evacuation of vulnerable populations before floods occur.
- Enhancing infrastructure resilience, such as constructing or retrofitting buildings to withstand flood events and implementing effective drainage systems.
- Investing in floodplain management and land-use planning to restrict development in high-risk flood areas and promote sustainable urban design.
- Strengthening social safety nets and community-based adaptation measures to support vulnerable populations during and after flood events.
- Enhancing access to affordable flood insurance and financial assistance for vulnerable communities.
- Promoting climate change adaptation and mitigation measures to reduce the severity and frequency of flooding events in the long term.

By integrating these measures, it is possible to reduce the impacts of flooding on vulnerable populations and enhance their resilience in the face of climate change.

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.

Levee Failure

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

The northern half of Louisiana is protected by levees on the Ouachita River, under the authority of the Vicksburg District of the United States Army Corp of Engineers (USACE). The Vicksburg District encompasses 68,000 mi² in the states of Arkansas, Mississippi and Louisiana. They manage seven drainage basins, including the Yazoo, Pearl, Big Black, Red, Ouachita, and Mississippi Rivers; 12 locks and dams on the Pearl, Red, and Ouachita Rivers; 1,808 miles of levees, including 468 miles along the Mississippi River; and multiple lakes with 1,709 miles of shoreline.

Coastal and southern Louisiana are protected by an extensive levee system under the authority of the New Orleans District of the USACE. This system includes 30,000 mi² of Louisiana south of Alexandria, including 961 miles of river levees in the Mississippi River and Tributaries Project, 449 miles of river levees in the Atchafalaya Basin, and 340 miles of hurricane-protection levees. Other levees have been built along stretches of rivers throughout Louisiana by local levee districts and private citizens. The data regarding these non-federal levees are managed by the individual entity responsible for construction and subsequent maintenance and are not kept in a consistent format for comprehensive hazard analysis.

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

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

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

Location

There are no known levees protecting Vernon Parish from flooding.

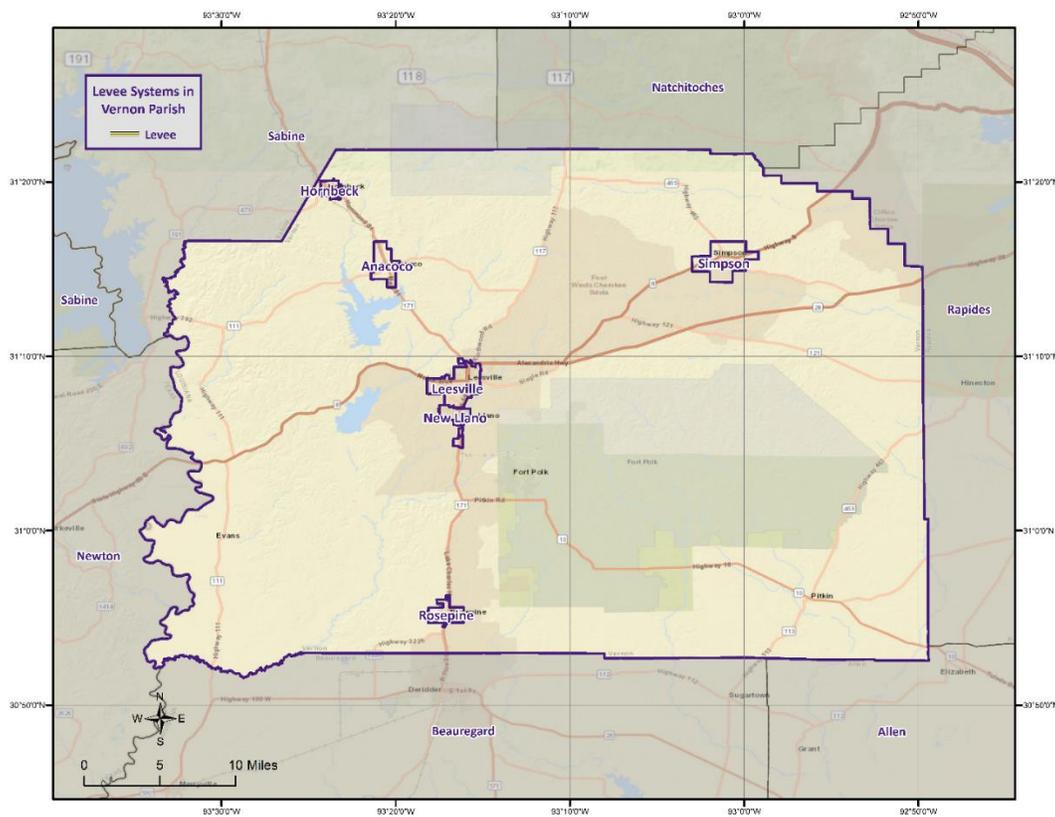


Figure 2-21: Levee Systems in Vernon Parish

Previous Occurrences / Extents

The NCEI Storm Events Database does not record anthropogenic disasters such as levee failures; therefore, it was necessary to rely on local knowledge and media reports. Since the 2016 HMP Update, there have been no flooding events due to levee failure in Vernon Parish, primarily because there are no known levees within the parish. Therefore, because there are no levees located within Vernon Parish, the hazard of levee failure is discounted and not carried forward into the risk assessment.

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 as well as a spectrum of hailstone diameters and their everyday equivalents.

Table 2-41: 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 2-42: 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 2-43*.

Table 2-43: 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 2-44 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 2-44: 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 table on the following page outlines the lightning activity level that is a measurement of lightning activity.

Table 2-45: 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	

Impacts of Climate Change

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

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

*Table 2-46: National Risk Index (NRI) Summarization of Thunderstorm Occurrences for the Parish
(Source: National Risk Index)*

Expected Annual Losses	Overall Risk Rating
Relatively Moderate	Relatively Moderate

Intense thunderstorms associated with climate change can damage infrastructure and disrupt essential services. Strong winds and heavy rainfall can cause power outages, damage to electrical grids, and interruptions in communication systems. Vulnerable populations relying on these services, such as healthcare facilities, emergency response systems, and communities with limited resources, may face additional challenges and risks during and after thunderstorm events.

To address the impacts of thunderstorms on vulnerable populations, it is important to:

- Strengthen early warning systems and dissemination of weather alerts to ensure that vulnerable populations receive timely and accurate information.
- Improve infrastructure resilience to withstand severe weather events, including thunderstorms, through measures such as reinforcing buildings, implementing effective drainage systems, and securing power and communication networks.
- Enhance community preparedness through education and training on thunderstorm safety measures, including appropriate responses to lightning hazards and flash flooding.
- Develop and implement emergency response plans that consider the specific needs and vulnerabilities of the local population, including the elderly, disabled individuals, and those with limited mobility or access to transportation.
- Promote the availability of safe shelters or evacuation centers for vulnerable populations during thunderstorms and other severe weather events.
- Implement climate change adaptation strategies, including land-use planning and ecosystem-based approaches, to mitigate the impacts of thunderstorms and reduce vulnerabilities in the long term.

Hazard Profile

Hailstorms

Location

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

Previous Occurrences / Extents

Historically, there have been 104 hail incidents in Vernon Parish. Hailstorm diameters have ranged from 0.75 inches to 2.75 inches per the National Climatic Data Center since 1990. The most frequently recorded hail sizes have been 0.75-inch in diameter. There have been 13 significant hailstorm events in Vernon Parish since the 2016 Vernon Parish HMP update. Below is a brief synopsis of those events.

*Table 2-47: Previous Occurrences for Hailstorm Events since the 2016 Hazard Mitigation Plan Update
(Source: NCEI Storm Events Database)*

Date	Hail Size (inches)	Property Damage	Crop Damage
April 29, 2017	1	\$0	\$0
April 3, 2018	1.75	\$0	\$0
April 4, 2019	1	\$0	\$0
April 6, 2019	1	\$0	\$0
April 13, 2019	1	\$0	\$0
May 19, 2019	1.5	\$0	\$0

February 5, 2020	1.25	\$0	\$0
February 5, 2020	1	\$0	\$0
February 5, 2020	1.5	\$0	\$0
May 8, 2020	1	\$0	\$0
May 20, 2020	1	\$0	\$0
May 26, 2020	1	\$0	\$0
August 15, 2020	1	\$0	\$0
June 10, 2022	1.25	\$0	%0

Frequency

Hailstorms occur frequently within Vernon Parish with an annual chance of occurrence calculated at 100% based on the records for the past 30 years (1990 – 2020). On the next page, *Figure 2-22* displays the density of hailstorm events in Vernon Parish, while *Figure 2-23* provides an overview of hailstorm size based on location.

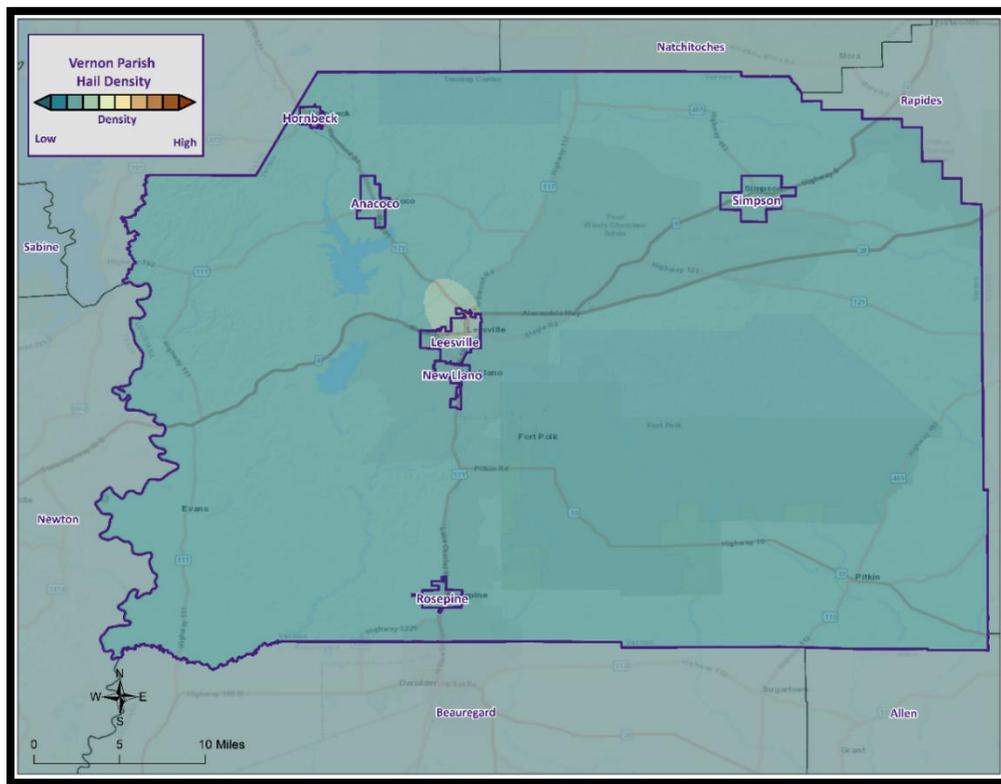


Figure 2-22: Density of Hailstorms by Diameter from 1950-2020

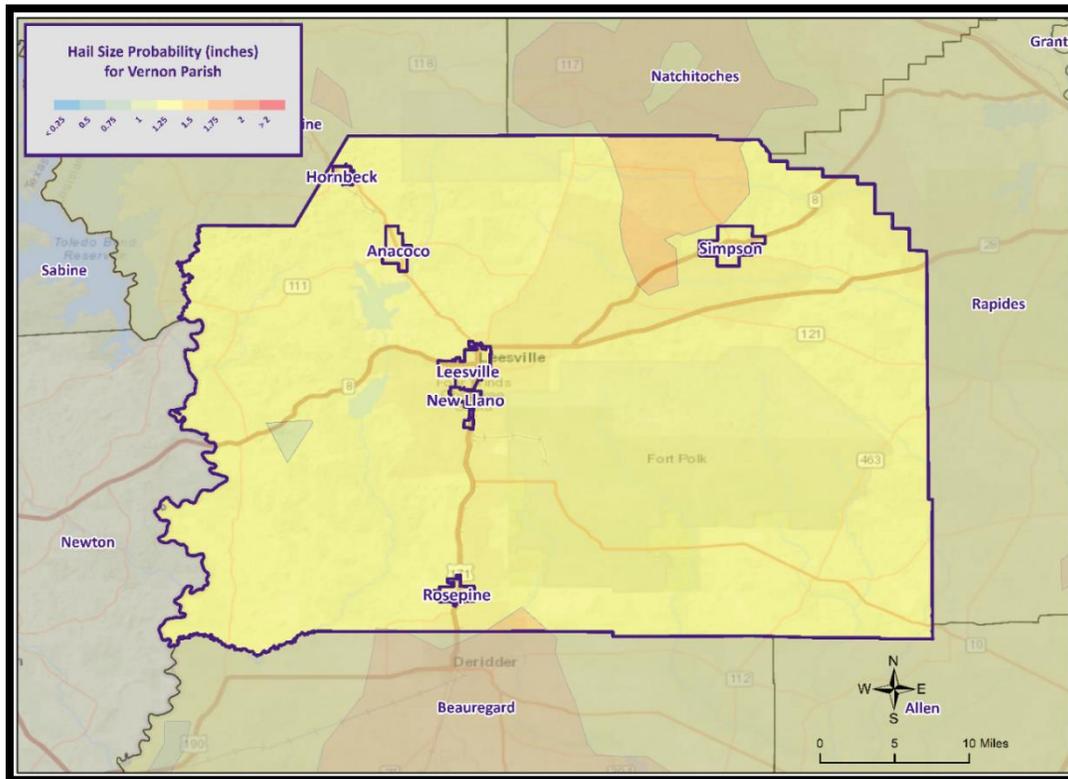


Figure 2-23: Hail Size Probability in Inches for Vernon Parish

Estimated Potential Losses

Since 1990, there have been 104 significant hail events that have resulted in property damage according to NCEI Storm Events Database. The total property damage associated with those storms have totaled approximately \$2,000. To estimate the potential losses of a hailstorm event on an annual basis, the total damage recorded for wind events was divided by the total number of years of available wind data in the NCEI Storm Events Database (1990 – 2020). This provides an annual estimated potential loss of \$67 and \$19 per event. The following table provides an estimate of potential property losses for Vernon Parish:

Table 2-48: Estimated Annual Losses Vernon Parish and its Jurisdictions Resulting from Hailstorms

Estimated Annual Potential Losses from Hailstorms						
Unincorporated Area	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
\$50	\$1	\$1	\$8	\$3	\$2	\$1

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

Vulnerability

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

High Winds

Location

Because high winds are a meteorological phenomenon that can occur anywhere, the entire planning area for Vernon Parish is equally at risk from high winds. The worst-case scenario for thunderstorm high wind is wind speeds of approximately 81 mph.

Previous Occurrences / Extents

Historically, there have been 164 thunderstorm high wind events in Vernon Parish. The high wind events ranged in windspeeds between 49 mph and 81 mph per the National Climatic Data Center since 1990. There have been 9 high wind speed events which have impacted the Vernon Parish Planning area since the 2016 Vernon Parish HMP update. Below is a brief synopsis of those events.

Table 2-49: Previous Occurrences for Thunderstorm High Wind Events since the 2016 Hazard Mitigation Plan Update

(Source: NCEI Storm Events Database)

Date	Wind Speed (mph)	Property Damage	Crop Damage
May 28, 2017	58	\$0	\$0
May 28, 2017	58	\$0	\$0
April 3, 2018	58	\$0	\$0
July 3, 2018	58	\$0	\$0
April 13, 2019	58	\$0	\$0
April 29, 2020	58	\$0	\$0
June 10, 2022	58	\$3,000	\$0
September 7, 2022	58	\$5,000	\$0
September 7, 2022	58	\$3,000	\$0

Frequency

High winds are a fairly common occurrence within Vernon Parish and its jurisdictions with an annual chance of occurrence calculated at 100% based on the records for the past 30 years (1990 – 2020). On the next page, *Figure 2-24* displays the thunderstorm wind speed probability for Vernon Parish and its jurisdictions.

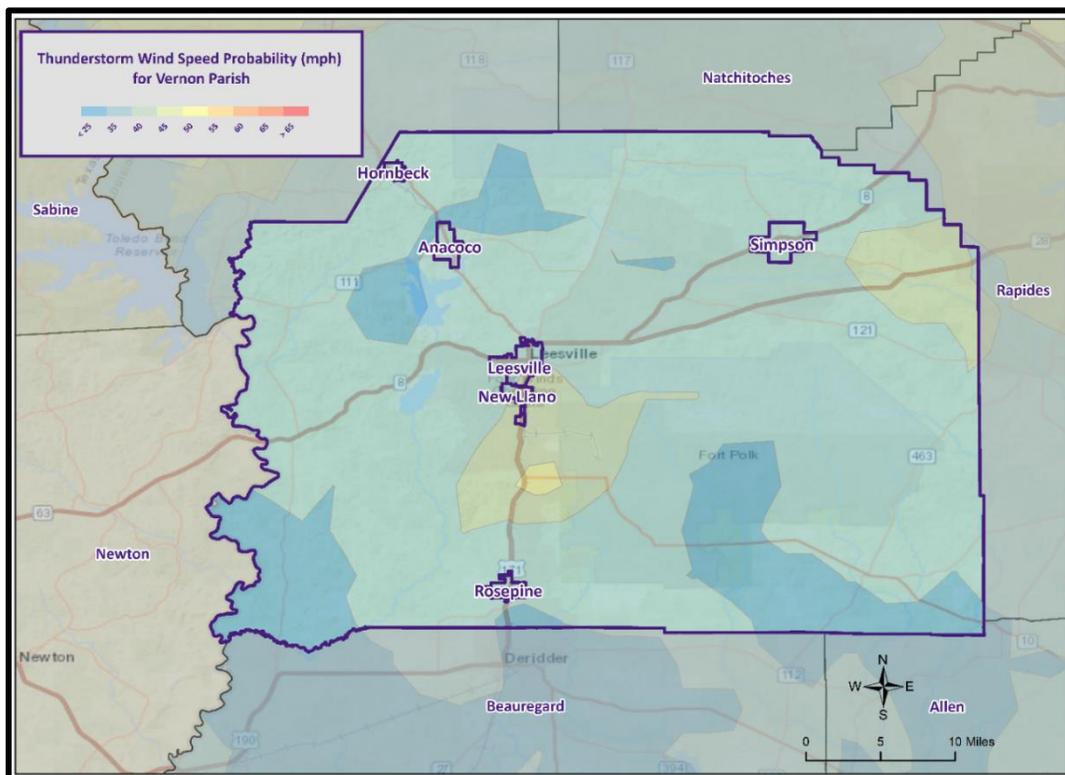


Figure 2-24: Thunderstorm High Wind Speed Probability in Miles Per Hour for Vernon Parish

Estimated Potential Losses

Since 1990, there have been 145 significant wind events that have resulted in property damages according to NCEI Storm Events Database. The total property damage associated with these storms totaled approximately \$4,024,000. To estimate the potential losses of a wind event on an annual basis, the total damages recorded for wind events were divided by the total number of years of available wind data in the NCEI Storm Events Database (1990 – 2022). This provides an annual estimated potential loss of \$125,750 and \$27,752 per event. The following table provides an estimate of potential property losses for Vernon Parish:

Table 2-50: Estimated Annual Property Losses in Vernon Parish resulting from Wind Damage

Estimated Annual Potential Losses from High Winds						
Unincorporated Area	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
\$95,006	\$2,088	\$1,153	\$15,888	\$6,017	\$4,066	\$1,533

There have has been one injury and no fatalities as a result of a thunderstorm high wind event over the 32-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 Vernon 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 two lightning events in Vernon Parish and its jurisdictions between the years 1990 and 2020. Since the last HMP update, there have been no significant lighting events within the boundaries of Vernon Parish.

Frequency

Lightning can strike anywhere and is produced by every thunderstorm, so the chance of lightning occurring in Vernon 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. Vernon Parish experienced two significant lightning events between the years 1990 and 2020 resulting in a 7% annual chance of occurrence.

Estimated Potential Losses

Since 1990, there have been two significant lightning events that have resulted in property damages according to NCEI Storm Events Database. The total property damages associated with this storm has totaled approximately \$52,000. To estimate the potential losses of a lightning event on an annual basis, the total damages recorded for lightning events was divided by the total number of years of available lightning data in the NCEI Storm Events Database (1990 – 2022). This provides an annual estimated potential loss of \$1,733 and \$26,000 per event. The following table provides an estimate of potential property losses for Vernon Parish:

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

Estimated Annual Potential Losses from Lightning						
Unincorporated Area	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
\$1,310	\$29	\$16	\$219	\$83	\$56	\$21

Per the NCEI Storm Events Database, there have been no fatalities or injuries as a result of lightning in Vernon Parish.

Vulnerability

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

Tornadoes

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

Since February 1, 2007, the Enhanced Fujita (EF) Scale has been used to classify tornado intensity. The EF Scale classifies tornadoes based on their damage pattern rather than wind speed; wind speed is then derived and estimated. This contrasts with the Saffir-Simpson scale used for hurricane classification, which is based on measured wind speed. *Table 2-52* 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

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

Table 2-53: 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 Vernon Parish with specific locations, tornadoes in general are a climatological based hazard and have the same approximate probability of occurring in Vernon Parish as all of its jurisdictions. Because a tornado has a similar probability of striking anywhere within the Vernon Parish planning area, all areas in the parish are equally at risk for tornadoes.

Previous Occurrences / Extent

The NCEI Storm Events Database reports a total of 37 tornadoes or waterspouts having occurred within the boundaries of Vernon Parish since 1990, ranging in extent from F0 to F2 under the Fujita Scale and EF0 to EF3 on the Enhanced Fujita Scale. Vernon Parish can expect future tornadoes up to an EF3 under the Enhanced Fujita Scale as a worst-case scenario.

The most destructive tornado to impact Vernon Parish was an EF3 tornado which occurred on December 16, 2019. The tornado was responsible for over \$1 million in damage and 1 fatality. There have been four fatalities in Vernon Parish as a result of tornadoes. Since the 2016 HMP Update, six tornadoes have occurred within the boundaries of Vernon Parish. On the following page is a list of the events and a brief description of their impacts.

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

Date	Impacts	Property Damage	Location	Magnitude
January 22, 2018	0.04 mile path with a width of 10 yards. A tornado briefly touched down near Vernon Lake, pulling a back patio off a home and damaging the roof it was attached to.	\$15,000	LEESVILLE ARPT	EF0
February 7, 2018	4.96 mile path with a width of 350 yards. A tornado started west of Webster Marcile Road near the community of Cravens snapping several pine trees. It crossed Highway 10 north of Pitkin traveling east to Highway 458 and H Spears Road where the most intense damage occurred. At this location numerous fallen trees were noted with one house receiving significant damage from trees. The last visible damage was noted along Fullerton Blacktop Road.	\$25,000	CRAVENS	EF1
December 27, 2018	0.32 mile path with a width of 200 yards. A brief tornado touched down just west of Highway 111 and crossed Highway 111 just south of the intersection of Highway 392 where it snapped several pine trees. The tornado lifted just to the east of the highway. Max estimated winds were 104 mph.	\$7,000	VERNON LAKE	EF1
December 16, 2019	28.41 mile path with a width of 550 yards. The tornado began in Beauregard Parish and moved into Vernon Parish near the intersection of John Brewer and Borel Roads as an EF3 with winds estimated at 152 mph. A fatality occurred on Borel Road as the tornado passed around 11:18 am CST. Extensive damage occurred to well built homes as well as mobile homes. This developing long track tornado continued moving northeast crossing Churchman Road where it ripped large open areas off home roofs. Winds were estimated at 135 mph. The tornado moved across forest areas of the southeast part of the Fort Polk Army Base. The tornado crossed into the east central part of Vernon Parish where trees and several homes were damaged around the Sandhill and Coral Roads area with winds estimated at 74 to 107 mph. The tornado moved in Rapides Parish 1 mile south of Highway 121. Roughly 26 structures were damaged along the path.	\$1,000,000	ROSEPINE	EF3

Date	Impacts	Property Damage	Location	Magnitude
April 19, 2020	5.34 mile path with a width of 500 yards. An EF-1 tornado touched down between the Leesville Airport and Lake Vernon Road. Numerous trees and power lines were blown down, uprooted or snapped off along West Hawthorne Road, Leesville County Club, Highway 117, LA Hwy 28, and Belview Road. Some of the trees fell on homes and vehicles. No one was seriously injured. The max estimated winds reached 105 mph.	\$300,000	LEESVILLE ARPT	EF1
April 22, 2020	18.99 mile path with a width of 500 yards. The tornado mainly damaged trees along the path from the Sabine River to Highway 171, however a couple of mobile homes were also damaged. The max estimated wind speed was 130 mph from some trees being debarked.	\$100,000	EVANS	EF2
December 6, 2021	0.24 mile path with a width of 10 yards. A tornado briefly occurred in Slagle producing tree damage. Multiple large trees had broken limbs or were downed.	\$2,000	SLAGLE	EFO
March 30, 2022	2.08 mile path with a width of 85 yards. The tornado started near A James road then crossed highway 121 and damaged property on Drake Road. Several pine trees were damaged and a metal building had its roof torn off and thrown for several yards. On the next private road over, there was minor damage to the roof of a mobile home. The last visible damage was near Allen Gordy Road with tree damage.	\$10,000	HICKS	EF1

Frequency / Probability

Tornadoes occur frequently within Vernon Parish and its jurisdictions with an annual chance of occurrence calculated at 100% based on the records for the past 32 years (1990 – 2022). On the next page, [Figure 2-25](#) displays the density of tornado touchdowns in Vernon Parish and neighboring parishes.

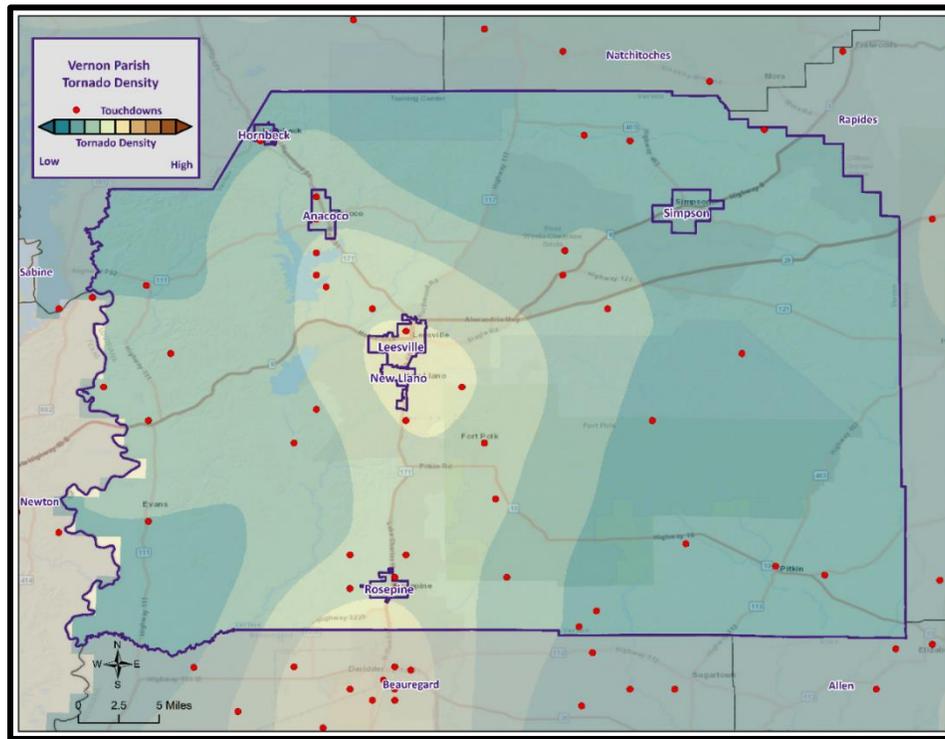


Figure 2-25: Location and Density of Tornadoes to Touchdown in Vernon Parish (Source: NOAA/SPC Severe Weather Database)

Estimated Potential Losses

According to the NCEI Storm Events Database, there have been 37 tornadoes that have caused some level of property damage. The total damage from the actual claims for property is approximately \$2,873,000 with an average cost of \$77,649 per tornado event. When annualizing the total cost over the 32-year record, total annual losses based on tornadoes are estimated to be \$77,649. The following table provides an annual estimate of potential losses for Vernon Parish.

Table 2-55 Estimated Annual Losses for Tornadoes in Vernon Parish

Estimated Annual Potential Losses from Tornadoes						
Unincorporated Area	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
\$67,831	\$1,491	\$823	\$11,343	\$4,296	\$2,903	\$1,095

Table 2-56 presents an analysis of building exposure that are susceptible to tornadoes by general occupancy type for Vernon Parish along with the percentage of building stock that are mobile homes.

Table 2-56: Building Exposure by General Occupancy Type for Tornadoes in Vernon Parish (Source: Hazus)

Building Exposure by General Occupancy Type for Tornadoes (\$1,000)							
Residential	Commercial	Industrial	Agricultural	Religion	Government	Education	Mobile Homes (%)
3,501,752	410,365	44,604	7,453	82,029	28,387	37,064	24.2%

Vernon Parish has suffered through a total of 37 events in which tornadoes or waterspouts have accounted for four injuries and one fatality during this 32-year period.

In accessing the overall risk to population, the most vulnerable population throughout the parish are those residing in manufacturing housing. Approximately 24.2% of all housing in Vernon Parish consists of manufactured housing. The location and density of manufactured houses can be seen in *Figure 2-26*.

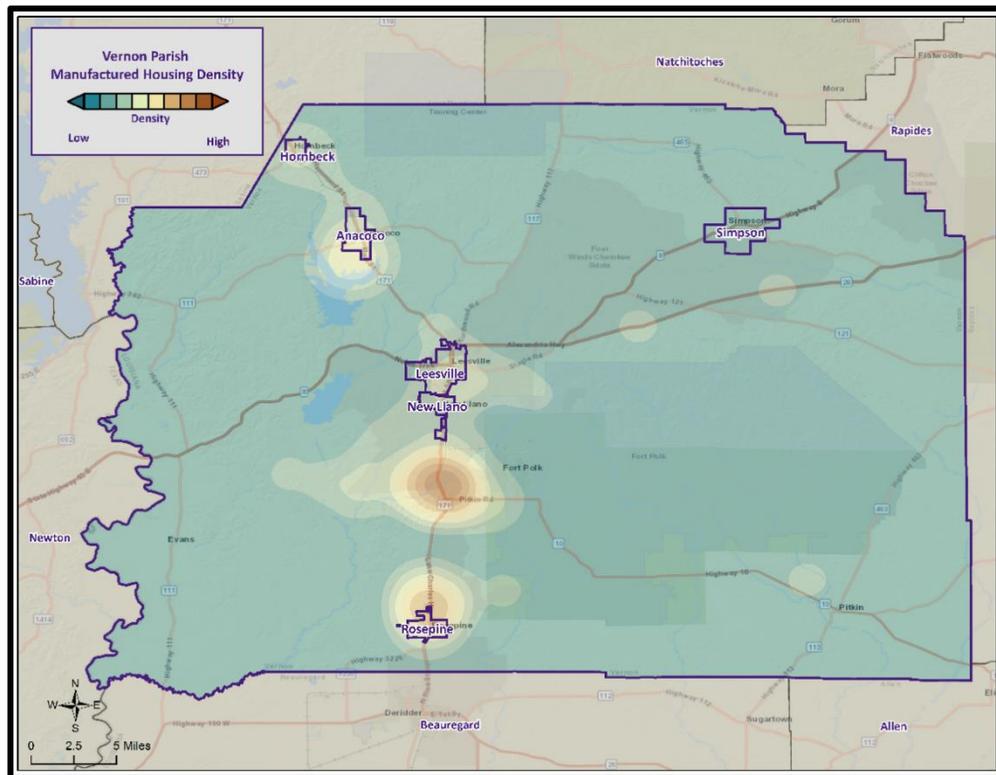


Figure 2-26: Location and Approximate Number of Units in Manufactured Housing Locations throughout Vernon Parish

Impacts of Climate Change

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

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

Table 2-57: National Risk Index (NRI) Summarization of Tornado Occurrences for the Parish (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Relatively Moderate	Relatively Moderate

Tornadoes are inherently dangerous and pose risks to all populations in their path. Vulnerable populations, including low-income communities, those with limited access to shelter or adequate warning systems, and individuals with mobility or communication challenges, may face heightened risks during tornado events. These populations may have limited resources or support systems to effectively prepare for, respond to, and recover from tornadoes, increasing their vulnerability to the associated impacts.

Socioeconomic factors, such as housing quality, access to safe shelters, and the ability to afford insurance coverage, can significantly influence vulnerability to tornadoes. Climate change can indirectly impact vulnerable populations through its socioeconomic effects, such as shifts in employment patterns, changes in housing affordability, or the availability of resources for disaster preparedness and recovery. These factors can affect a community's ability to withstand tornado impacts and recover in the aftermath.

It is important to note that tornadoes are highly localized and short-lived events, making it challenging to draw direct links between climate change and their occurrence or impacts. However, addressing the broader impacts of climate change, such as strengthening disaster preparedness, improving early warning systems, promoting resilient infrastructure, and reducing socioeconomic vulnerabilities, can enhance the overall resilience of vulnerable populations to tornadoes and other severe weather events.

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 Vernon Parish planning area. The worst-case scenario for a tropical cyclone event in Vernon Parish is a Category 2 Hurricane.

Previous Occurrences / Extents

Vernon Parish has experienced six major tropical cyclone events since 2002. The table on the following page provides a list of the tropical cyclones that have impacted Vernon Parish since 2002.

Table 2-59: Historical Tropical Cyclone Events in Vernon Parish from 2002 – 2020

Date	Name	Storm Type at Time of Impact
2005	Rita	Hurricane
2007	Humberto	Tropical Storm
2008	Gustav	Tropical Storm
2011	Lee	Tropical Storm
2020	Laura	Hurricane
2020	Delta	Tropical Storm

Since the last Vernon 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 their impacts on Vernon 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.

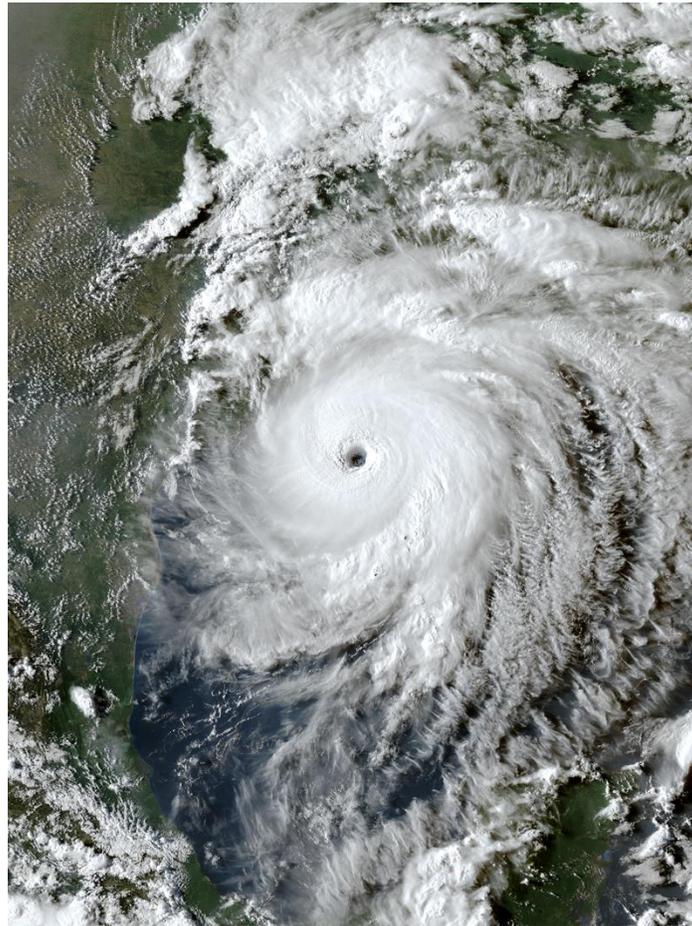
On the morning of August 21st, Tropical Depression Thirteen strengthened into Tropical Storm Laura, which was the earliest twelfth named Atlantic storm, beating the previous record of Hurricane Luis of 1995 by eight days. As Laura moved westward, little additional strengthening took place as the center 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.



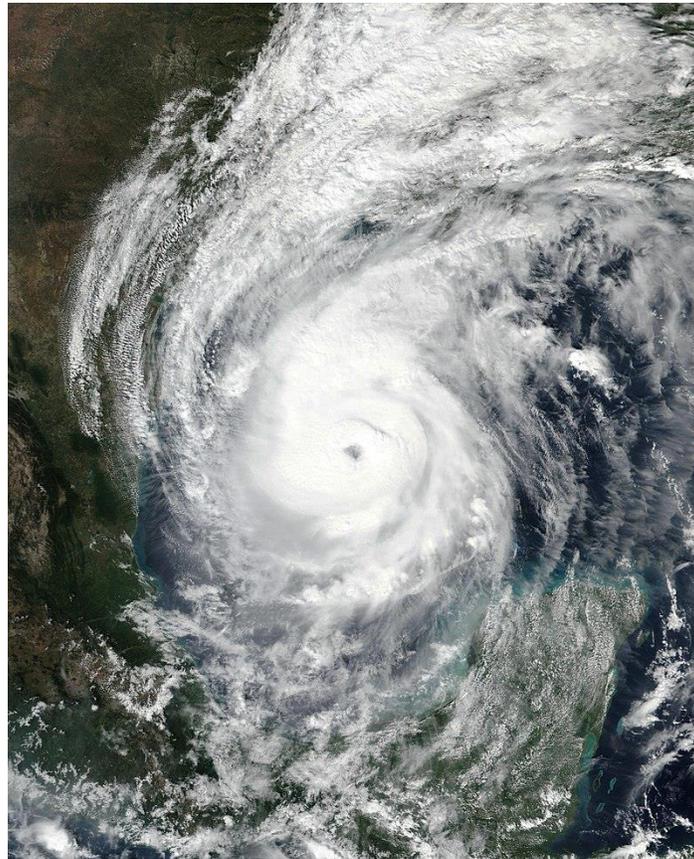
*Figure 2-27: Hurricane Laura in the Gulf Coast Area
(Source: NOAA)*

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

In Vernon Parish, numerous trees, powerlines, and poles were downed. Homes and businesses were damaged from fallen trees or from the high winds. The entire parish was without power immediately after the storm. A 14-year-old female died from a fallen tree. The parish experienced wind gusts from 100 to 120 mph.

Tropical Storm Delta (2020)

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



*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 Vernon Parish, wind gusts were upwards of 65 mph and heavy rainfall led to numerous downed trees and power lines. Minor flooding throughout the parish was caused from four to eight inches of rainfall.

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

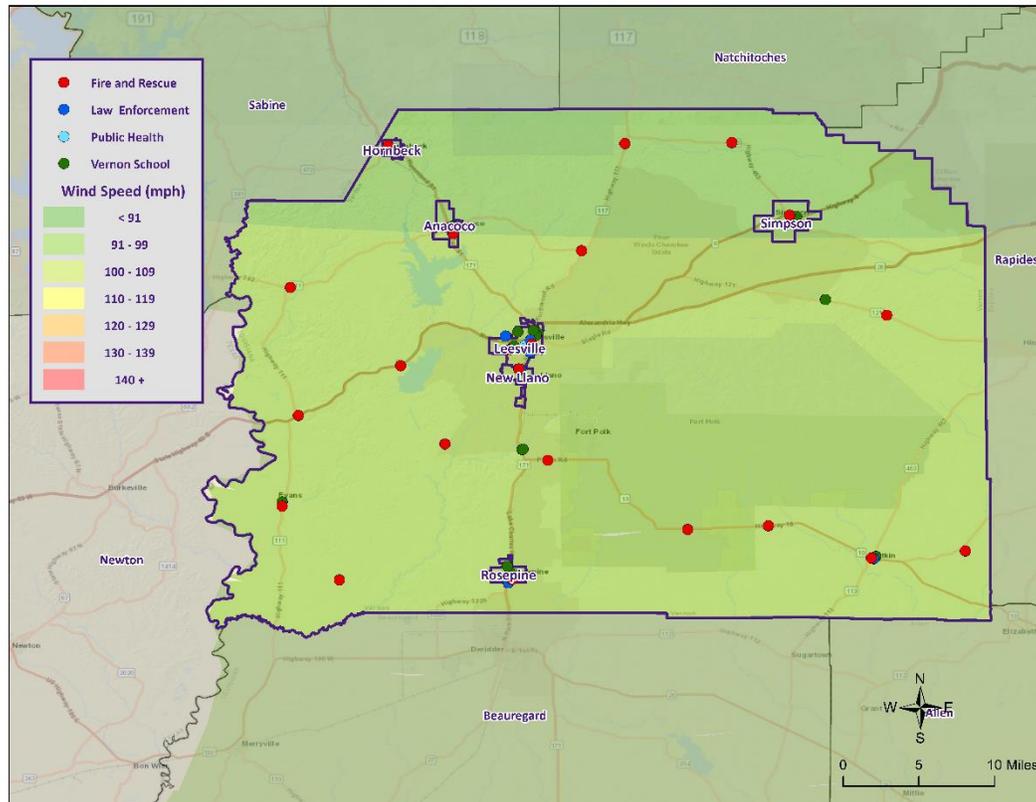


Figure 2-29: Winds Zones for Vernon Parish in Relation to Critical Facilities

Frequency / Probability

Tropical cyclones are large natural hazard events that occasionally impact Vernon Parish. The annual chance of occurrence for a tropical cyclone is estimated at 33% for Vernon Parish with six events occurring within 18 years (2002 to 2020). The tropical cyclone season for the Atlantic Basin is from June 1st through November 30th, with most of the major hurricanes (Saffir-Simpson Categories 3, 4, & 5) occurring between the months of August and October. Based on geographical location alone Vernon 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 following 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
Unincorporated Vernon Parish	\$12,008,909
Anacoco	\$263,935
Hornbeck	\$145,787
Leesville	\$2,008,217
New Llano	\$760,523
Rosepine	\$513,900
Simpson	\$193,775
Total	\$15,895,047

Total losses from a 100-year hurricane event for Vernon 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 Vernon Parish
(Source: Hazus)*

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event	Total Estimated Value of Assets	Ratio of Estimated Losses to Total Value
Unincorporated Vernon Parish	\$12,008,909	\$2,899,597,000	0.4%
Anacoco	\$263,935	\$69,918,000	0.4%
Hornbeck	\$145,787	\$46,181,000	0.3%
Leesville	\$2,008,217	\$703,080,000	0.3%
New Llano	\$760,523	\$201,891,000	0.4%
Rosepine	\$513,900	\$123,477,000	0.4%
Simpson	\$193,775	\$67,510,000	0.3%

Based on the Hazus Hurricane Model, estimated total losses for Vernon Parish and its jurisdictions ranged from 0.3% to 0.4% 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 by sector for Vernon Parish and its jurisdictions are listed in the following tables:

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

Unincorporated Vernon Parish	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$3,831
Commercial	\$114,482
Government	\$4,108
Industrial	\$8,620
Religious / Non-Profit	\$16,018
Residential	\$11,856,639
Schools	\$5,366
Total	\$12,008,909

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

Anacoco	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$82
Commercial	\$2,516
Government	\$89
Industrial	\$189
Religious / Non-Profit	\$352
Residential	\$260,589
Schools	\$118
Total	\$263,935

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

Hornbeck	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$1,390
Government	\$0
Industrial	\$105
Religious / Non-Profit	\$194
Residential	\$143,939
Schools	\$65
Total	\$145,787

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

Leesville	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$623
Commercial	\$19,144
Government	\$679
Industrial	\$1,442
Religious / Non-Profit	\$2,679
Residential	\$1,982,754
Schools	\$897
Total	\$2,008,217

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

New Llano	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$236
Commercial	\$7,250
Government	\$257
Industrial	\$546
Religious / Non-Profit	\$1,014
Residential	\$750,879
Schools	\$340
Total	\$760,523

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

Rosepine	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$159
Commercial	\$4,899
Government	\$174
Industrial	\$369
Religious / Non-Profit	\$685
Residential	\$507,383
Schools	\$230
Total	\$513,900

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

Simpson	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$1,847
Government	\$65
Industrial	\$139
Religious / Non-Profit	\$258
Residential	\$191,318
Schools	\$87
Total	\$193,775

Threat to People

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

*Table 2-69: Number of People Susceptible to a 100-Year Hurricane Event in Vernon Parish
(Source: Hazus)*

Number of People Exposed to Hurricane Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
Unincorporated Vernon Parish	39,539	39,539	100%
Anacoco	869	869	100%
Hornbeck	480	480	100%
Leesville	6,612	6612	100%
New Llano	2,504	2504	100%
Rosepine	1,692	1692	100%
Simpson	638	638	100%
Total	52,334	52,334	100%

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

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

Unincorporated Vernon Parish		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	39,539	100.0%
Persons Under 5 Years	3,598	9.1%
Persons Under 18 Years	10,557	26.7%
Persons 65 Years and Over	4,033	10.2%
White	30,761	77.8%
Minority	8,778	22.2%

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

Anacoco		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	869	100.0%
Persons Under 5 Years	64	7.4%
Persons Under 18 Years	173	19.9%
Persons 65 Years and Over	123	14.2%
White	810	93.2%
Minority	59	6.8%

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

Hornbeck		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	480	100.0%
Persons Under 5 Years	24	5.0%
Persons Under 18 Years	105	21.9%
Persons 65 Years and Over	62	12.9%
White	461	96.0%
Minority	19	4.0%

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

Leesville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	6,612	100.0%
Persons Under 5 Years	497	7.5%
Persons Under 18 Years	1,144	17.3%
Persons 65 Years and Over	862	13.0%
White	3,576	54.1%
Minority	3,036	45.9%

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

New Llano		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	2,504	100.0%
Persons Under 5 Years	216	8.6%
Persons Under 18 Years	464	18.5%
Persons 65 Years and Over	188	7.5%
White	1,084	43.3%
Minority	1,420	56.7%

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

Rosepine		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,692	100.0%
Persons Under 5 Years	140	8.3%
Persons Under 18 Years	315	18.6%
Persons 65 Years and Over	224	13.2%
White	1,417	83.8%
Minority	275	16.3%

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

Simpson		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	638	100.0%
Persons Under 5 Years	38	6.0%
Persons Under 18 Years	125	19.6%
Persons 65 Years and Over	80	12.5%
White	609	95.5%
Minority	29	4.6%

Impacts of Climate Change

Climate change has the potential to alter the prevalence and severity of extreme incidents such as tropical cyclones within Vernon Parish and the jurisdictions of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson. Vernon Parish and the jurisdictions of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson are expected to experience more days with temperatures above 95°F this century which means an increase in sea surface and ambient temperatures, alterations in the hydrological cycle, and an increase in seal level which collectively may increase the frequency of large storm incidents and impacts. Research indicates that the warming climate will increase the frequency of Category 4 and 5 hurricanes but decrease the frequency of less severe tropical cyclone incidents by the end of the century. This

increase in the frequency of Category 4 and 5 hurricanes will lead to an increase in damage to the built environment and increased negative effects on the economy and ecosystem.

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

*Table 2-77: National Risk Index (NRI) Summarization of Tropical Cyclones Occurrences for the Parish
(Source: National Risk Index)*

Expected Annual Losses	Overall Risk Rating
Relatively Low	Relatively Low

Tropical cyclones can cause severe damage to infrastructure, including power grids, communication networks, and transportation systems. Climate change may exacerbate these impacts, affecting the ability of vulnerable populations to access critical services and support systems during and after a storm. Disruptions in healthcare facilities, emergency response services, and other essential infrastructure can further increase the vulnerability of impacted communities.

Vulnerable populations are often disproportionately affected by tropical cyclones and may face challenges in coping with the aftermath of a storm. The destruction of homes, loss of livelihoods, and displacement can lead to social disruption and exacerbate existing socioeconomic disparities. Vulnerable communities may struggle to recover and rebuild, facing prolonged periods of economic hardship and increased vulnerability to subsequent storms.

Addressing the impacts of tropical cyclones on vulnerable populations requires a comprehensive approach, including:

- Strengthening early warning systems and disaster preparedness to ensure timely evacuation and reduce loss of life.
- Investing in resilient infrastructure, including building codes, to withstand the impacts of tropical cyclones, such as strong winds, storm surge, and heavy rainfall.
- Enhancing access to safe shelters and evacuation routes for vulnerable populations, including those with mobility challenges or limited resources.
- Implementing climate change adaptation strategies, such as coastal zone management and ecosystem restoration, to reduce the vulnerability of coastal communities to storm impacts.
- Improving post-disaster recovery and support systems to facilitate the long-term recovery and resilience of vulnerable populations.
- Addressing socioeconomic disparities and promoting equitable access to resources and support systems to enhance the resilience of vulnerable communities to tropical cyclones.

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 2-78: 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 Vernon Parish is a level 5; Rosepine and Simpson a level 3; Hornbeck a level 2.5; Leesville and New Llano a level 2; and Anacoco a level 1 on the fire intensity scale. The following figure displays the areas of wildland-urban interface and intermix within Vernon Parish and its jurisdictions.

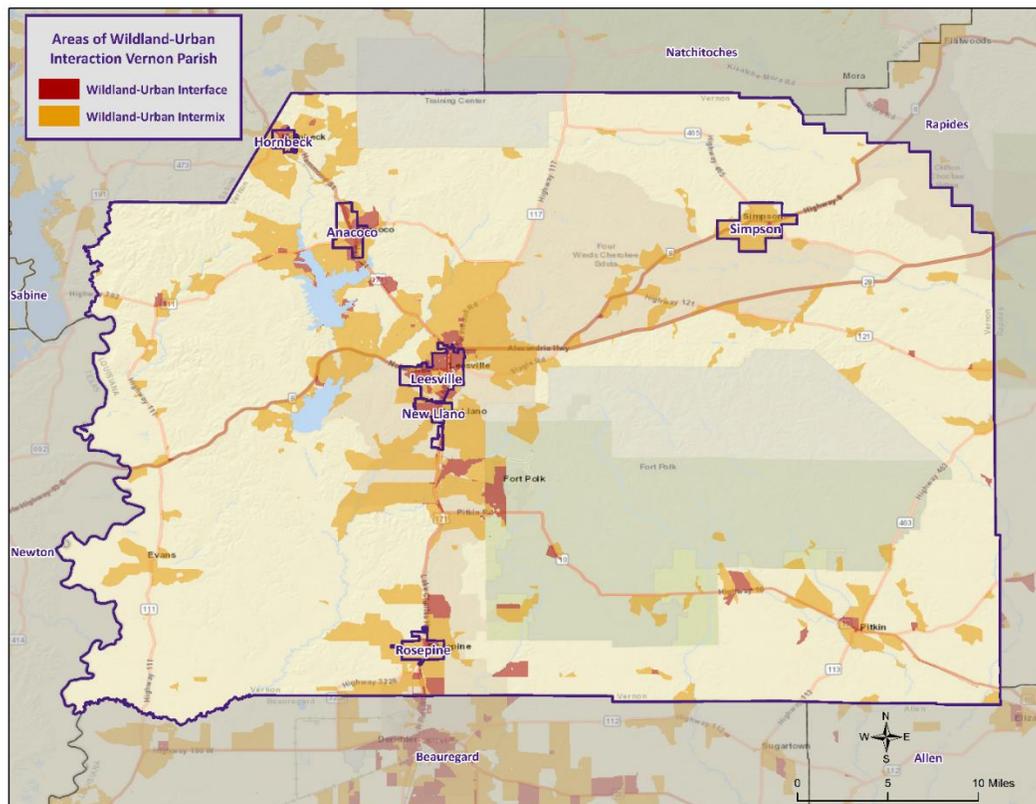


Figure 2-30: Wildland-Urban Interaction in Vernon Parish

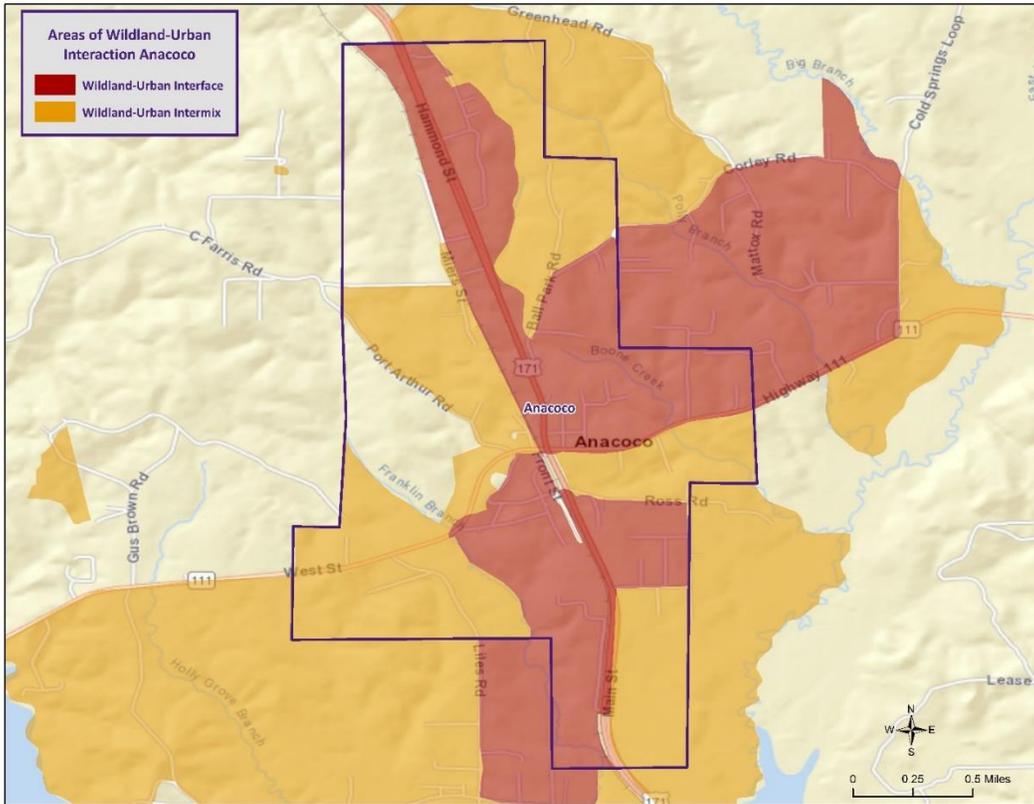


Figure 2-31: Wildland-Urban Interaction in Anacoco

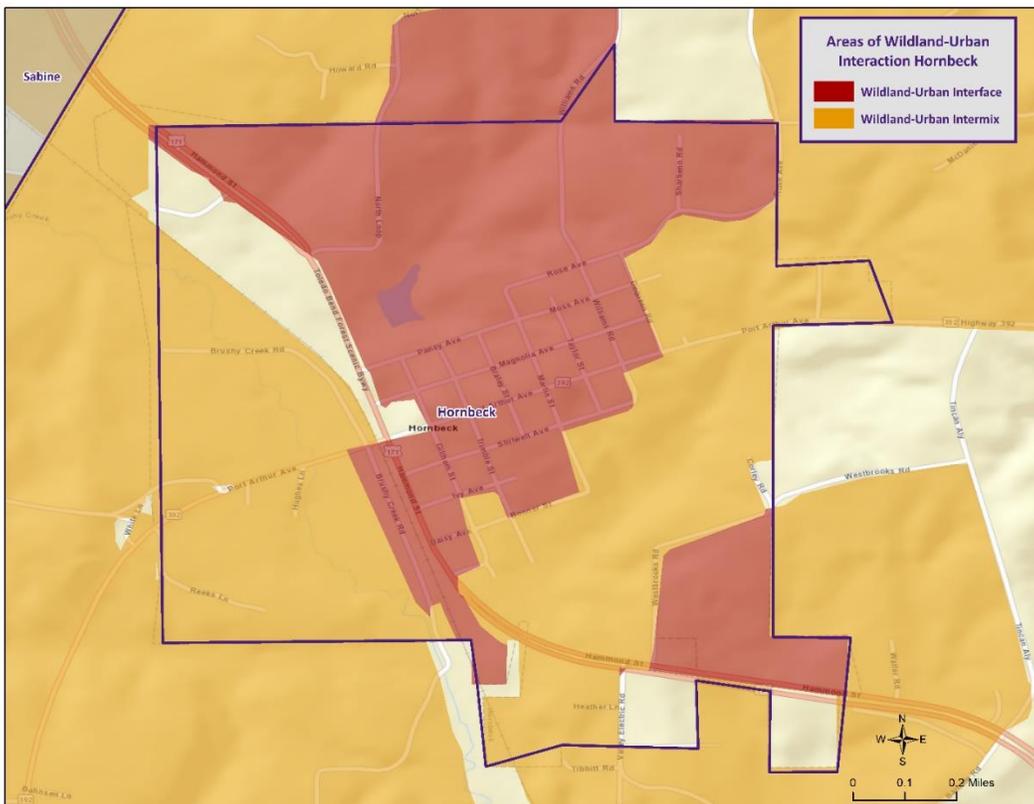


Figure 2-32: Wildland-Urban Interaction in Hornbeck

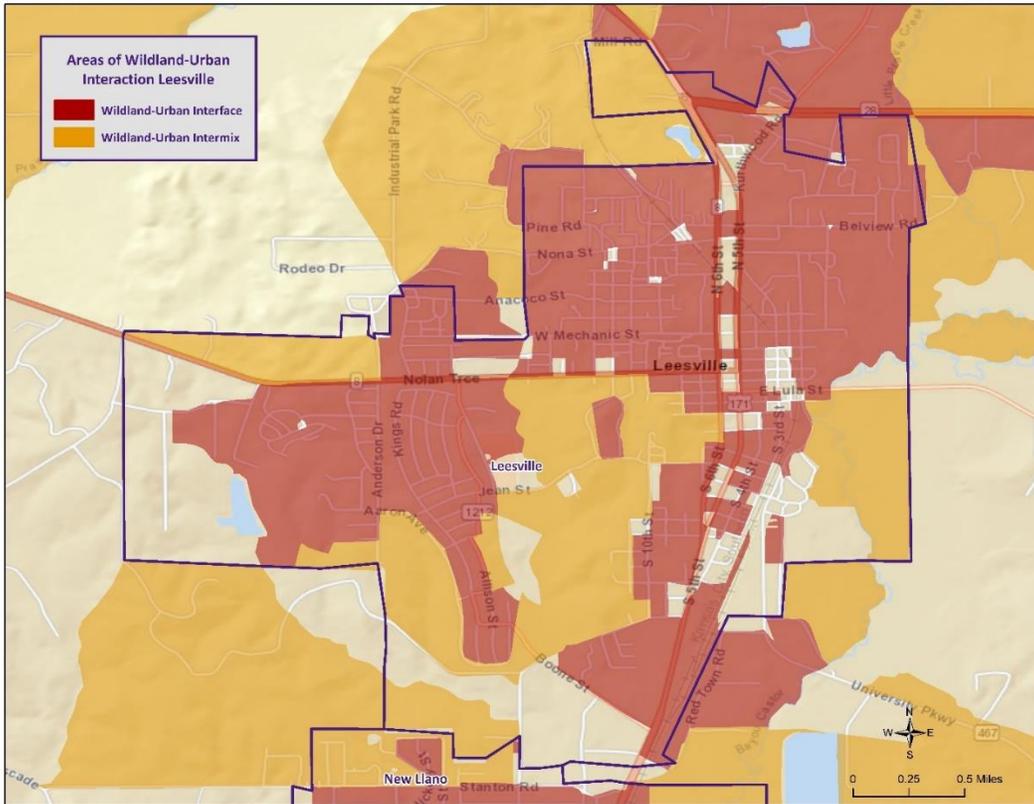


Figure 2-33: Wildland-Urban Interaction in Leesville

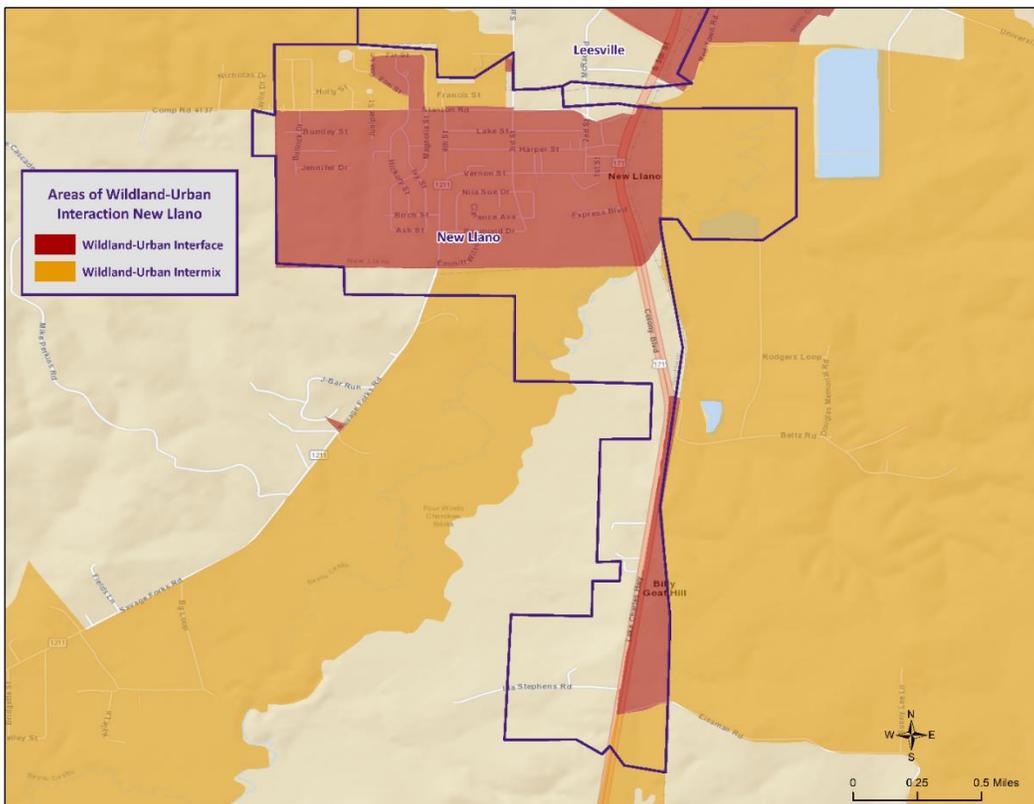


Figure 2-34: Wildland-Urban Interaction in New Llano

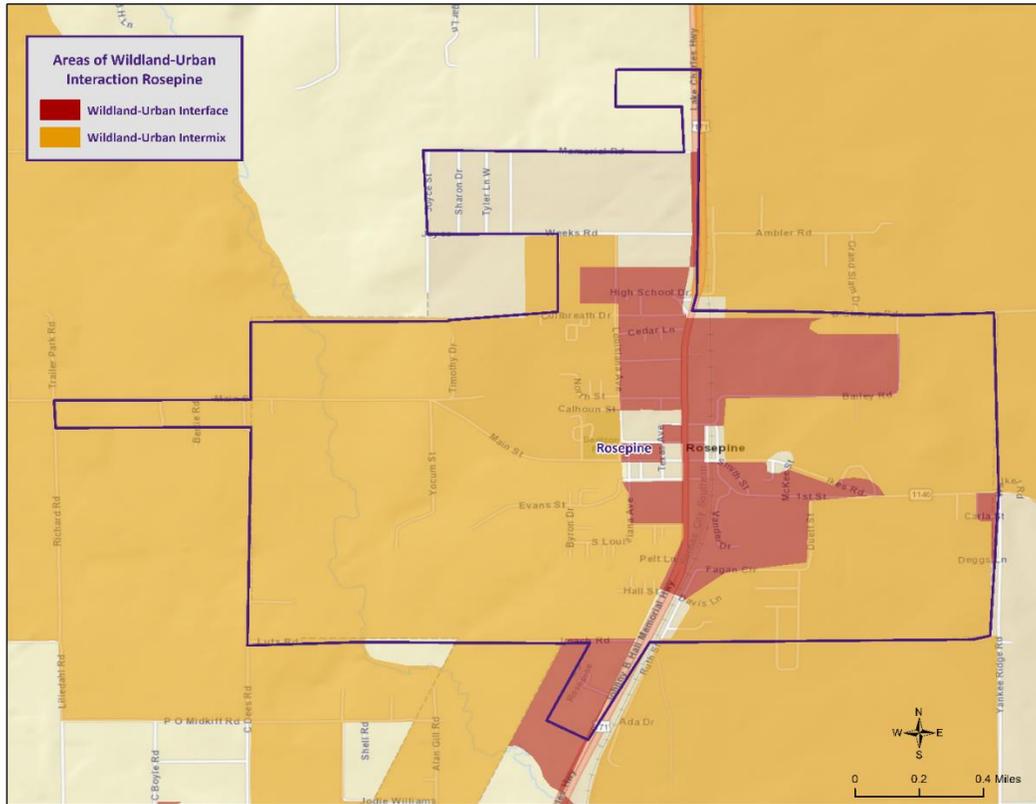


Figure 2-35: Wildland-Urban Interaction in Rosepine

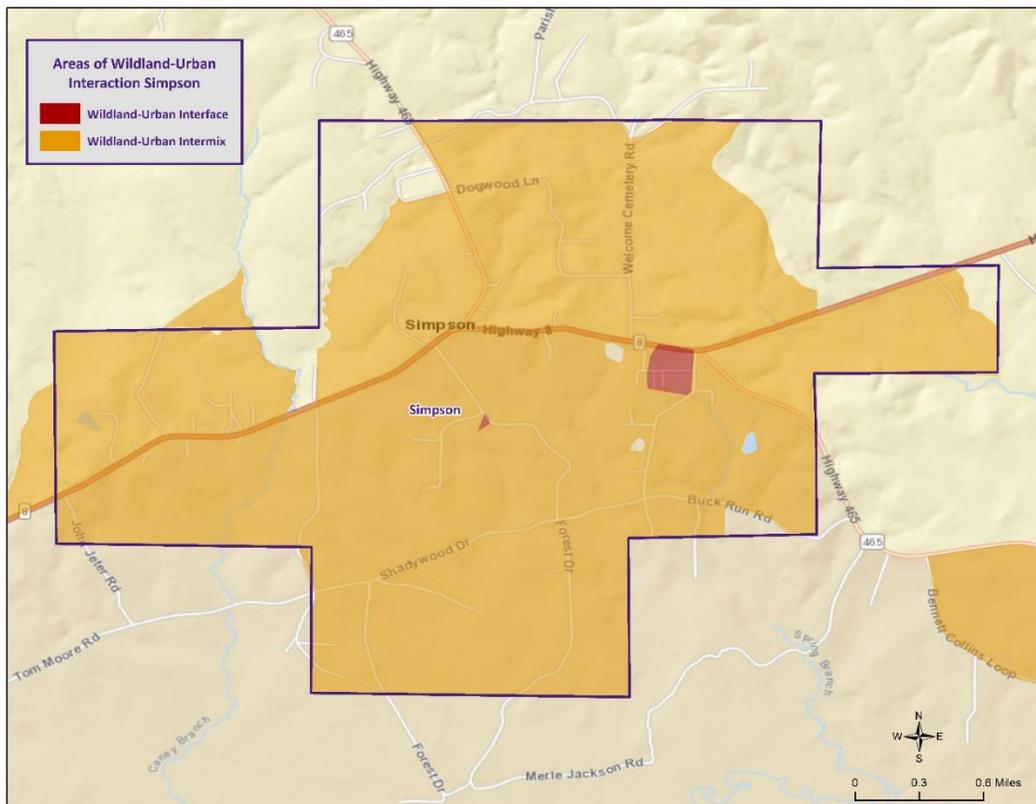


Figure 2-36: Wildland-Urban Interaction in Simpson

Previous Occurrences / Extents

The NCEI Storm Events reports one wildfire event having occurred within the boundaries of Vernon Parish between 1990 and 2022. Since the last Vernon Parish HMP Update in 2016, there have been no occurrences of wildfire events in Vernon Parish or its jurisdictions.

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

*Table 2-79: Potential Wildfire Intensity Levels for Vernon Parish
(Source: Southern Wildfire Assessment Portal)*

Fire Intensity	
Vernon Parish	Highest Intensity Level 5
Anacoco	Lowest Intensity Level 1
Hornbeck	Low to Moderate Intensity Level 2.5
Leesville	Low Intensity Level 2
New Llano	Low Intensity Level 2
Rosepine	Moderate Intensity Level 3
Simpson	Moderate Intensity Level 3

Frequency / Probability

Based on historical records, there has been one significant wildfire event within the boundaries of Vernon Parish and its jurisdictions; therefore, the annual chance of occurrence for wildfires is estimated at 3%.

Estimated Potential Losses

According to the NCEI Storm Events database, there has been one wildfire event within the boundaries of Vernon 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 2-80: Total Building Exposure by Wildland-Urban Interaction Areas
(Source: Hazus)*

Jurisdiction	Estimated Total Building Exposure
Unincorporated Vernon Parish	\$2,434,495,000
Anacoco	\$69,918,000
Hornbeck	\$46,181,000
Leesville	\$688,369,000
New Llano	\$199,813,000
Rosepine	\$116,358,000
Simpson	\$67,976,000
Total	\$3,623,110,000

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

*Table 2-81: Estimated Exposure for Unincorporated Vernon Parish by Sector
(Source: Hazus)*

Unincorporated Vernon Parish	Estimated Total Building Exposure by Sector
Agricultural	\$4,530,000
Commercial	\$192,421,000
Government	\$6,774,000
Industrial	\$27,781,000
Religious / Non-Profit	\$45,893,000
Residential	\$2,149,782,000
Schools	\$7,314,000
Total	\$2,434,495,000

*Table 2-82: Estimated Exposure for Anacoco by Sector
(Source: Hazus)*

Anacoco	Estimated Total Building Exposure by Sector
Agricultural	\$341,000
Commercial	\$4,070,000
Government	\$2,132,000
Industrial	\$488,000
Religious / Non-Profit	\$415,000
Residential	\$60,626,000
Schools	\$1,846,000
Total	\$69,918,000



*Table 2-83: Estimated Hornbeck in Hornbeck by Sector
(Source: Hazus)*

Hornbeck	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$381,000
Government	\$0
Industrial	\$58,000
Religious / Non-Profit	\$303,000
Residential	\$43,535,000
Schools	\$1,904,000
Total	\$46,181,000

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

Leesville	Estimated Total Building Exposure by Sector
Agricultural	\$1,197,000
Commercial	\$157,596,000
Government	\$11,378,000
Industrial	\$8,322,000
Religious / Non-Profit	\$22,897,000
Residential	\$470,675,000
Schools	\$16,304,000
Total	\$688,369,000

*Table 2-85: Estimated Exposure for New Llano by Sector
(Source: Hazus)*

New Llano	Estimated Total Building Exposure by Sector
Agricultural	\$477,000
Commercial	\$6,663,000
Government	\$2,137,000
Industrial	\$782,000
Religious / Non-Profit	\$1,720,000
Residential	\$187,893,000
Schools	\$141,000
Total	\$199,813,000

Table 2-86: Estimated Exposure in Rosepine by Sector
(Source: Hazus)

Rosepine	Estimated Total Building Exposure by Sector
Agricultural	\$426,000
Commercial	\$4,594,000
Government	\$1,148,000
Industrial	\$940,000
Religious / Non-Profit	\$4,388,000
Residential	\$101,052,000
Schools	\$3,810,000
Total	\$116,358,000

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

Simpson	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$6,728,000
Government	\$402,000
Industrial	\$426,000
Religious / Non-Profit	\$994,000
Residential	\$57,283,000
Schools	\$2,143,000
Total	\$67,976,000

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 2-88: Population Located within a Wildland-Urban Interaction Areas
(Source: 2010 U.S. Census Data)

Number of People Located in Wildland-Urban Interaction Areas			
Location	# in Community	# in Hazard Area	% in Hazard Area
Unincorporated Vernon Parish	39,539	36,039	91.1%
Anacoco	869	865	99.5%
Hornbeck	480	480	100.0%
Leesville	6,612	6,419	97.1%
New Llano	2,504	2,504	100.0%
Rosepine	1,692	1,538	90.9%
Simpson	638	638	100.0%
Total	52,334	48,483	92.6%

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

Table 2-89: Population in Unincorporated Vernon Parish Located within a Wildland-Urban Interaction Area

(Source: 2010 Census Data)

Unincorporated Vernon Parish		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	36,039	91.1%
Persons Under 5 Years	3,280	9.1%
Persons Under 18 Years	9,622	26.7%
Persons 65 Years and Over	3,676	10.2%
White	28,038	77.8%
Minority	8,001	22.2%

Table 2-90: Population in Anacoco Located within a Wildland-Urban Interaction Area

(Source: 2010 Census Data)

Anacoco		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	865	99.5%
Persons Under 5 Years	64	7.4%
Persons Under 18 Years	0	19.9%
Persons 65 Years and Over	0	14.2%
White	0	93.2%
Minority	0	6.8%

Table 2-91: Population in Hornbeck Located within a Wildland-Urban Interaction Area

(Source: 2010 Census Data)

Hornbeck		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	480	100.0%
Persons Under 5 Years	24	5.0%
Persons Under 18 Years	105	21.9%
Persons 65 Years and Over	62	12.9%
White	461	96.0%
Minority	19	4.0%

*Table 2-92: Population in Leesville Located within a Wildland-Urban Interaction Area
(Source: 2010 Census Data)*

Leesville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	6,419	97.1%
Persons Under 5 Years	483	7.5%
Persons Under 18 Years	1,110	17.3%
Persons 65 Years and Over	837	13.0%
White	3,471	54.1%
Minority	2,948	45.9%

*Table 2-93: Population in New Llano Located within a Wildland-Urban Interaction Area
(Source: 2010 Census Data)*

New Llano		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	2,504	100.0%
Persons Under 5 Years	216	8.6%
Persons Under 18 Years	464	18.5%
Persons 65 Years and Over	188	7.5%
White	1,084	43.3%
Minority	1,420	56.7%

*Table 2-94: Population in Rosepine Located within a Wildland-Urban Interaction Area
(Source: 2010 Census Data)*

Rosepine		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,538	90.9%
Persons Under 5 Years	127	8.3%
Persons Under 18 Years	286	18.6%
Persons 65 Years and Over	204	13.2%
White	1,288	83.8%
Minority	250	16.3%

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

Simpson		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	638	100.0%
Persons Under 5 Years	38	6.0%
Persons Under 18 Years	125	19.6%
Persons 65 Years and Over	80	12.5%
White	609	95.5%
Minority	29	4.6%

Impacts of Climate Change

The increasing probability and intensity of drought caused by climate change across Vernon Parish and the jurisdictions of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson indicates that the risk of wildfires will also increase. The presence of drought or prolonged dry spells will lead to an increase in dry grasses, brush, and forests that act as fuel for fires.

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

*Table 2-96: National Risk Index (NRI) Summarization of Wildfire Occurrences for the Parish
(Source: National Risk Index)*

Expected Annual Losses	Overall Risk Rating
Relatively Low	Relatively Low

Wildfires and their aftermath can have significant psychological impacts on individuals and communities. Evacuations, loss of homes, and the destruction of familiar landscapes can lead to feelings of loss, anxiety, and trauma. Vulnerable populations, including those with pre-existing mental health conditions or limited access to support services, may be particularly affected. Additionally, the prolonged exposure to smoke, evacuation stress, and uncertainty about the future can contribute to mental health challenges.

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To address the impacts of wildfires on vulnerable populations, it is important to:

- Improve wildfire prevention and mitigation measures, including land management practices, controlled burns, and the removal of hazardous vegetation near communities.
- Enhance early warning systems and evacuation plans to ensure the timely and safe evacuation of vulnerable populations.
- Strengthen building codes and land-use planning to promote fire-resistant construction and discourage development in high-risk areas.

- Increase access to resources and support for vulnerable populations during and after wildfires, including emergency shelters, healthcare services, and mental health support.
- Promote community resilience through education and outreach programs, empowering individuals to take proactive measures to protect themselves and their communities from wildfires.
- Address underlying socioeconomic disparities and ensure that vulnerable populations have the necessary resources and support to recover and rebuild after a wildfire event.

Vulnerability

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

Winter Weather

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

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

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

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

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

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

Table 2-97: 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 Vernon Parish as all of the adjacent parishes, the entire planning area for Vernon Parish is equally at risk for winter storms. The worst case scenario for winter storms in Vernon Parish is a 2 on the Sperry-Piltz Ice accumulation index.

Previous Occurrences / Extents

The NCEI Storm Events Database reports 18 winter weather events occurring within the boundaries of Vernon Parish between the years 1990 and 2022. Below is a brief synopsis of the winter weather event which occurred since the last Vernon Parish HMP Update in 2016.

Table 2-98: Previous Occurrences for Winter Storm Events

Date	Synopsis	Property Damage	Crop Damage
January 6, 2017	Rain became freezing rain, then sleet and snow during the late morning and afternoon of the 6th. While accumulations were light, patchy ice developed on some roadways.	\$0	\$0
December 8, 2017	One to two inches of snow fell during the event. Ice formed on some area bridges impeding traffic and closing schools during the event.	\$0	\$0
January 16, 2018	A light dusting of snow and sleet over a thin glaze of ice occurred during the 16th. Area travel was interrupted, and area schools canceled classes for the day. Accumulation was around half an inch.	\$0	\$0
February 14, 2021	Temperatures fell below freezing during the evening of the 14th as showers developed across the parish. Rain changed over to freezing rain then quickly over to sleet. Sleet changed over to light snow by the end of the event. 2 to 3 inches of sleet and snow accumulated. All roads were icy making travel difficult.	\$0	\$0

Frequency / Probability

Based on historical records, there have been 18 significant winter weather events within the boundaries of Vernon Parish and the jurisdictions of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson; therefore, the annual chance of occurrence for winter weather is estimated at 56%.

Estimated Potential Losses

Since 1990, there have been 18 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 \$5,000. 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 - 2022). This provides an annual estimated potential loss of \$156 and \$89 per event. The following table provides an estimate of potential property losses for Vernon Parish:

Table 2-99: Estimated Annual Losses in Vernon Parish and its Jurisdictions Resulting from Winter Weather

Estimated Annual Potential Losses from Winter Weather						
Unincorporated Area	Anacoco	Hornbeck	Leesville	New Llano	Rosepine	Simpson
\$118	\$3	\$1	\$20	\$7	\$5	\$2

There have been no reported injuries or fatalities as a result of winter weather over the 32-year record.

Impacts of Climate Change

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

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

Table 2-100: National Risk Index (NRI) Summarization of Winter Weather Occurrences for the Parish (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Very Low	Very Low

Winter weather impacts can have significant health implications for vulnerable populations. Cold temperatures, coupled with inadequate heating or insulation in homes, can increase the risk of hypothermia and other cold-related illnesses. Additionally, extreme winter weather events can impede access to healthcare services, disrupt supply chains for essential medications, and create challenges for emergency response systems, putting vulnerable populations at higher risk.

Changes in winter weather patterns can have socioeconomic implications for vulnerable populations. For example, communities that rely on winter tourism, such as ski resorts or winter recreational activities, may experience reduced economic opportunities due to shorter snow seasons or less predictable weather conditions. Additionally, vulnerable populations engaged in winter-dependent industries, such as agriculture or seasonal employment, may face livelihood challenges due to altered growing seasons or disruptions in work availability.

Addressing the impacts of climate change on winter weather and vulnerable populations requires comprehensive approaches, including:

- Enhancing climate monitoring and prediction systems to better understand and anticipate changes in winter weather patterns.
- Developing and implementing climate adaptation strategies that consider the specific vulnerabilities and needs of vulnerable populations during winter events.
- Improving energy efficiency and access to affordable heating systems to reduce the health risks associated with cold temperatures.
- Strengthening infrastructure resilience to withstand extreme winter weather events, such as upgrading power grids and transportation systems.
- Enhancing public awareness and education on winter weather safety, including cold-related health risks and emergency preparedness.
- Promoting social support networks, including community outreach programs, to ensure vulnerable populations have access to resources, shelters, and healthcare during extreme winter events.
- Implementing sustainable land and water management practices to mitigate the impacts of altered snowfall patterns and earlier snowmelt on ecosystems and water resources.

Vulnerability

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

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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, Vernon 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 Vernon Parish planning area to propose ways to continually improve it. These tools are valuable instruments in pre- and post-disaster mitigation as they facilitate the implementation of mitigation activities through the current legal and regulatory framework. Examples of existing documents include the following:

Table 3-1: Planning and Regulatory Capabilities

Capability Assessment Worksheet									
Local mitigation capabilities are existing authorities, policies and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.									
Planning and Regulatory									
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.									
Plans	Vernon	Unincorporated	Village of Ana Coco	Town of Hornbeck	City of Leesville	Town of New Llano	Town of Rosepine	Village of Simpson	Comments
	Yes / No								
Comprehensive / Master Plan	Yes	No	No	Yes	Yes	No	Yes		
Capital Improvements Plan	Yes	Yes	Yes	No	No	Yes	Yes		
Economic Development Plan	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Local Emergency Operations Plan	Yes	No	No	Yes	Yes	No	Yes		
Continuity of Operations Plan	Yes	No	No	Yes	Yes	No	Yes		
Transportation Plan	Yes	No	No	No	No	No	No		
Stormwater Management Plan	No	No	No	No	No	No	No		
Community Wildfire Protection Plan	No	No	No	No	No	No	No		
HHPD Emergency Action Plan	Yes	No	No	No	No	No	No		
Other plans (redevelopment, recovery, coastal zone management)		No				No			
Building Code, Permitting and Inspections	Yes / No								
Building Code	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Score	No	No	No	No	No	No	No		
Fire Department ISO/PIAL rating	Yes	Yes	Yes		Yes	Yes	Yes		
Site plan review requirements	Yes	No	No	Yes	No	No	No		
Land Use Planning and Ordinances	Yes / No								
Zoning Ordinance	Yes	Yes	Yes	Yes	Yes	No	No		
Subdivision Ordinance	Yes	Yes	Yes	Yes	Yes	No	No		
Floodplain Ordinance	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	No	No	No	No	No	No		
Flood Insurance Rate Maps	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Acquisition of land for open space and public recreation	Yes	Yes	Yes	Yes	Yes	No	No		
Other	No					No			

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

Building Codes, Permitting, Land Use Planning and Ordinances

The Vernon Parish Police Jury provides oversight for building permits and codes, land use planning, and all parish ordinances.

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

The Vernon Parish Police Jury 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 Vernon 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 Vernon 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.								
	Vernon Unincorporated	Village of Ana Coco	Town of Hornbeck	City of Leesville	Town of New Llano	Town of Rosepine	Village of Simpson	Comments
Administration	Yes / No							
Planning Commission	Yes	Yes	Yes	Yes	Yes	No	Yes	
Mitigation Planning Committee	Yes	Yes	Yes	Yes	Yes	No	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Yes	Yes	Yes	Yes	No	Yes	
Staff	Yes / No							
Chief Building Official	Yes	Yes	Yes	Yes	Yes	No	Yes	
Floodplain Administrator	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Emergency Manager	Yes	No	No	Yes	No	No	Yes	
Community Planner	Yes	No	No	No	No	No	No	
Civil Engineer	Yes	Yes	Yes	Yes	Yes	No	Yes	
GIS Coordinator	Yes	No	No	No	No	No	No	
Grant Writer	Yes	No	No	Yes	No	No	No	
Other	No	No	No	No	No	No	No	
Technical	Yes / No							
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Yes	Yes	Yes	Yes	No	Yes	
Hazard Data & Information	Yes	No	No	No	No	No	No	
Grant Writing	Yes	Yes	Yes	Yes	Yes	No	No	
Hazus Analysis	No	No	No	No	No	No	No	
Other	No	No	No	No	No	No	No	

Financial capabilities are the resources that Vernon 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 Vernon 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.								
	Vernon Unincorporated	Village of Ana Coco	Town of Hornbeck	City of Leesville	Town of New Llano	Town of Rosepine	Village of Simpson	Comments
Funding Resource	Yes / No							
Capital Improvements project funding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Impact fees for new development	No	No	No	No	No	No	No	
Stormwater Utility Fee	No	No	No	No	No	No	No	
Community Development Block Grant (CDBG)	Yes	Yes	No	Yes	No	No	No	
Other Funding Programs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Education and Outreach

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

The jurisdictions within the Vernon Parish planning area have existing education and outreach programs to implement mitigation activities, as well as communicate risk and hazard related information to its communities. The existing programs are as follows:

Table 3-4: Education and Outreach Capabilities

Education and Outreach									
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.									
Program / Organization	Vernon	Unincorporated	Village of Anacoco	Town of Hornbeck	City of Leesville	Town of New Llano	Town of Rosepine	Village of Simpson	Comments
	Yes / No								
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	No	No	No	No	No	No	Yes		
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	Yes	Yes	Yes	Yes	No	Yes		
Natural Disaster or safety related school program	Yes	Yes	Yes	Yes	Yes	No	Yes		
Storm Ready certification	No	No	No	No	No	No	Yes		
Firewise Communities certification				Yes		No	Yes		
Public/Private partnership initiatives addressing disaster related issues	Yes	Yes	Yes	No	Yes	No	Yes		
Other	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 Vernon Parish planning area remain committed to expanding and improving on the existing capabilities within the parish. Communities will work together along with Vernon 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 Vernon 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 Vernon Parish nor the incorporated areas of Anacoco, Hornbeck, Leesville, New Llano, Rosepine, and Simpson 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, 318 communities in the State of Louisiana participate in the Federal Emergency Management Agency’s National Flood Insurance Program (NFIP). Of these communities, 41 (or 13%) participate in the Community Rating System (CRS). Jefferson Parish leads the state with a rating of Class 5, followed by three cities with a rating of Class 6: the Cities of Gretna and Kenner in Jefferson Parish and the City of Mandeville in St.

Tammany Parish. Of the top fifty Louisiana communities, in terms of total flood insurance policies held by residents, 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 2011¹, the National Flood Insurance Program (NFIP) completed a comprehensive review of the Community Rating System (CRS) that resulted in the release of a new CRS Coordinator’s Manual. The changes to the 2013 CRS Coordinator’s Manual are the result of a multi-year program evaluation that included input from a broad group of contributors to evaluate the CRS and refine the program to meet its stated goals. The changes helped to drive new achievements in the following six core flood loss reduction areas important to the NFIP: (1) reduce liabilities to the NFIP Fund; (2) improve disaster resiliency and sustainability of communities; (3) integrate a Whole Community approach to addressing emergency management; (4) promote natural and beneficial functions of floodplains; (5) increase understanding of risk, and; (6) strengthen adoption and enforcement of disaster-resistant building codes.

Since the revision of the 2013 Coordinator’s Manual, FEMA released the 2017 CRS Coordinator’s Manual which continued the evolution of the CRS program and its mission to reward communities that prioritize mindful floodplain regulations. As with the 2013 manual, the changes made in the 2017 manual impact each CRS community differently. Some communities see an increase in the points they receive since points for certain activities have increased (e.g., Activity 420 Open Space Preservation). Other communities receive fewer points for certain activities (e.g., Activity 320 Map Information Service). It is likely that some communities with marginal CRS Class 9 programs have to identify new CRS credits in order to remain in the CRS class. Most notably, as it relates to this hazard mitigation plan, more credit was made available for Activity 410 Floodplain Mapping.

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

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

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

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

1. The activities credited by the CRS provide direct benefits to residents, including:
 - Enhanced public safety
 - A reduction in damage to property and public infrastructure
 - Avoidance of economic disruption and losses
 - Reduction of human suffering
 - Protection of the environment
2. A community's flood programs will be better organized and more formal. Ad hoc activities, such as responding to drainage complaints rather than an inspection program, will be conducted on a sounder, more equitable basis.
3. A community can evaluate the effectiveness of its flood program against a nationally recognized benchmark.
4. Technical assistance in designing and implementing a number of activities is available at no charge from the Insurance Services Office.
5. The public information activities will build a knowledgeable constituency interested in supporting and improving flood protection measures.
6. A community would have an added incentive to maintain its flood programs over the years. The fact that its CRS status could be affected by the elimination of a flood related activity or a weakening of the regulatory requirements for new developments would be taken into account by the governing board when considering such actions.
7. Every time residents pay their insurance premiums, they are reminded that the community is working to protect them from flood losses, even during dry years.

NFIP Worksheets

Parish NFIP worksheets can be found in [Appendix E: State Required Worksheets](#).

4. Mitigation Strategy

Introduction

The Hazard Mitigation Strategy for Vernon 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 Vernon Parish Hazard Mitigation Plan Steering Committee under the coordination of the Vernon 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 February 2022 – March 2023.

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

This activity was created in an effort to confirm that the goals and action items developed by the Vernon Parish Hazard Mitigation Plan Planning Committee are representative of the outlook of the community at large. However, because there were so few responses to the survey, this public feedback could not be incorporated into the plan. The Vernon Parish survey results can be found at the following link:

<https://www.surveymonkey.com/r/VernonHM2022>

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

The goals are as follows:

1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events
2. Implement measures to protect or reduce damage to structures and assets from future hazards
3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards
4. Reduce hazard impacts through modifications to built or natural environments
5. Enhance public awareness and understanding of disaster preparedness
6. Improve communications throughout the parish during hazard events

The Mitigation Action Plan focuses on actions to be taken by Vernon 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.

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

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

2023 Mitigation Actions and Update on Previous Plan Actions

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

Vernon Parish Mitigation Actions

Previous Action Update

Unincorporated Vernon Parish Mitigation Actions						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
V1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 1)
V2: 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, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/ Vernon Parish Police Jury	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See Vernon Parish Mitigation Action 2)
V3: 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, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding, Tropical Cyclones	Not Started - Carried Over (See Vernon Parish Mitigation Action 3)
V4: Safe Room Projects	Construction of a safe room for first responders located in Vernon Parish. Other locations will be identified based on funding availability.	HMGP, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 4)

V5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Flooding, Tropical Cyclone, tornadoes, wildfires, excessive heat, thunderstorms, drought, winter weather, dam failure, 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, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 5)
V6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HMGP, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 6)
V7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HMGP, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Thunderstorms	Not Started - Carried Over (See Vernon Parish Mitigation Action 7)
V8: Warning Systems	Update/upgrade public warning system components as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 8)
V9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals in Parish, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HMGP, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 9)
V10: 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, BRIC, FMA, Local	1-5 years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Not Started - Carried Over (See Vernon Parish Mitigation Action 10)
V11: Dam Failure Grant Funding	Seek out and apply for grant funding for the gathering and analysis of data related to a dam failure.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Flooding	Deleted - Duplicate of V12 Action

V12: Dam Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam failure. In addition, the working group will be in charge of determining inundation zones as it relates to High Hazard Potential Dams (HHPD)	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Flooding	Not Started - Carried Over (See Vernon Parish Mitigation Action 11)
V13: Crisis Rehearsal Scenarios	Schedule and conduct Crisis Rehearsal scenarios involving various responder agencies.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 12)
V14: Portable Power Generators	Acquire portable power generators for various locations including water systems.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather,	Deleted (Duplicate of V6)
V15: Sewer Back-Up Power	Acquire back-up power for sewer lift stations.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 13)
V16: SCBA Equipment	Acquire SCBA equipment.	HMGP, BRIC, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Wildfires	Not Started - Carried Over (See Vernon Parish Mitigation Action 14)
V17: Emergency Roadblock Equipment	Acquire emergency roadblock equipment.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 15)
V18: Red Cross Structures	Maintain Red Cross structures.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 16)
V19: Shelter Operations	Train locals in Shelter operations.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 17)

V20: Back Up Fuel Supply	Acquire/install 15,000 gallon diesel and unleaded gasoline storage tanks and necessary pumping equipment to provide a backup fuel supply for generators so that critical facilities to continue essential operations.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 18)
V21: Roadside Warning Signs	Acquire/install roadside warning signs to warn motorists of potential flooding hazards.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Flooding, Tropical Cyclones	Not Started - Carried Over (See Vernon Parish Mitigation Action 19)
V22: SRL Sites	Acquire SRL sites within parish and clear sites	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Deleted (Duplicate of V3)
V23: Risk Property Elevation	Elevate at risk properties within the parish and/or utilize a pilot reconstruction program for flood-proofing.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Deleted (Duplicate of V3)
V24: Government Building Hardening	Harden/retrofit governmental buildings and other critical facilities in the parish.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Thunderstorms, Tropical Cyclones, Tornadoes, Winter Weather	Deleted (Duplicate of V1)
V25: Emergency Operations and Communications Center	Construct a new Emergency Operations and Communications Center fitted with features to protect structure from high wind and flood events. This may include, among others, structure hardening, hurricane clips, building elevation, and the elevation of utility connectors and emergency generators.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 20)
V26: Sheriff's Office Hardening	Incorporate Safe Room and building hardening components into new Sheriff's office building now being designed.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Thunderstorms, Tropical Cyclones, Tornadoes, Winter Weather	Deleted (Duplicate of V1 and V4)
V27: Planning and Zoning Ordinances/Building Codes	Improve and/or develop planning and zoning ordinances as well as building codes to include more effective flood, hurricane, and tornado protection regulations.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding, Tornadoes, Tropical Cyclones	Not Started - Carried Over (See Vernon Parish Mitigation Action 21)

V28: GIS Database	Develop/maintain a comprehensive GIS database that will include the following: 1. All properties/parcels in the parish 2. Hazard areas 3. Service districts 4. Public works facilities 5. Transportation infrastructure 6. Special needs residence	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 22)
V29: Property Damage Database	Maintain a database of all properties that sustain damage as a result of a flood. Include information about the nature and extent of the damage. Incorporate this database into Parish Geographic Information System.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Not Started - Carried Over (See Vernon Parish Mitigation Action 23)
V30: Subdivision Regulations Ordinance Update	Review and update pertinent section(s) of the Vernon Parish Subdivision Regulations Ordinance in order to develop more stringent regulations requiring new and replacement sanitary sewage systems to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Not Started - Carried Over (See Vernon Parish Mitigation Action 24)
V31: Wastewater Treatment Retrofitting	Implement an impact fee program or similar mechanism to retrofit existing sewage lift stations, sewer lines, and treatment plants to improve the effectiveness and the capacity of the existing wastewater treatment infrastructure.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted - Duplicate of V1 Action
V32: Forested Area Undergrowth	Participate with appropriate authority to implement controlled burns to remove undergrowth in forested areas of the parish.	HMGP, BRIC, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Wildfires	Not Started - Carried Over (See Vernon Parish Mitigation Action 25)
V33: Fire Lanes	Maintain fire lanes to reduce spread of wildland fires	HMGP, BRIC, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Wildfires	Not Started - Carried Over (See Vernon Parish Mitigation Action 26)

V34: Critical Bridge Elevation	Elevate critical bridges in flood prone areas of the parish.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Not Started - Carried Over (See Vernon Parish Mitigation Action 27)
V35: Critical Road Elevation	Elevate critical roads in parish flood plains.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Not Started - Carried Over (See Vernon Parish Mitigation Action 28)
V36: Drainage Pattern Evaluation	Evaluate drainage patterns throughout the parish in light of anticipated land use changes. Evaluate the need for additional drainage and flood control measures for both newly developing areas of the Parish and more established areas. Coordinate with the appropriate agency (Corps of Engineers, DOTD, etc.) to design, fund, and implement the desired projects that result from this analysis.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Deleted - Duplicate of V3 Action
V37: Public Water and Sewer Line Extension	Extend public water and sewer lines into the parish currently served only by private water wells and other sewage disposal methods.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 29)
V38: Beaver Dam Removal	Remove Beaver Dams which contribute to flooding in the parish.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Not Started - Carried Over (See Vernon Parish Mitigation Action 30)
V39: Shallow-Rooted Tree Removal	Remove shallow-rooted trees at all public school sites and administrative facilities (BMP) in parish.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 31)
V40: Crop Protection For Droughts	In association with Louisiana State University Cooperative Extension Services, provide technical assistance to Vernon Parish farmers in the form of forums, brochures, or web pages regarding possible funding sources for and the installation of irrigation systems to protect crops from drought conditions.	HMGP, BRIC, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Drought	Not Started - Carried Over (See Vernon Parish Mitigation Action 32)

V41: Educational Materials	Develop, print, and distribute educational materials addressing separately all hazards, including information/measures to take to protect life and property during such hazard events.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Delete (Duplicate of V5)
V42: Public Speaking Series	Develop a public-speaking series to include topics such as types of natural disasters, how to develop a family disaster plan, how to develop a business continuity plan, and simple types of mitigation projects for homeowners. Offer these engagements to civic groups, church groups, business groups, and others throughout Vernon Parish.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Delete (Duplicate of V5)
V43: Additional Communications Towers	Construct additional communications towers at strategic locations to complete parish coverage.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Vernon Parish Mitigation Action 33)
V44: Communications Towers Tie-Downs	Acquire/install tie-downs for all existing communication towers in parish.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones	Deleted - Duplicate of V1 Action
V45: Upgrade Communication Capabilities	Upgrade both technological and administrative communication capabilities among fire, police, 911, and other state and local emergency operations through improved planning and the upgrading of communication infrastructure and equipment.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted - Duplicate of V44 Action
V46: Emergency Notification Methods	Implement emergency notification methods, such as emergency radios or siren warning system, for those in flood prone areas below Toledo Bend Dam and other dam hazard areas in the parish.	HMGP, BRIC, FMA, Local	1-5 Years	Vernon Parish OHSEP/Vernon Parish Police Jury	Flooding	Delete (Duplicate of V8)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after 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 VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Pursue various drainage projects throughout the town that will relieve flooding problems, reduce flood damage, and limit the overtopping of roads during periods of high precipitation
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, Thunderstorms, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures, lowering the cost burden after flooding events
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 UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Vernon Parish. 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 personnel 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 VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	Vernon Parish Police Jury
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for dam failure, 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 enhance resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 6. Improve communications throughout the parish during hazard events
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	Installation of generators at critical facilities will minimize downtime during an event and aid with local relief efforts
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
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 VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 8	Warning Systems
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Update/upgrade public warning system components 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	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 9	Potable Water
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 5. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Low
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	Educating the public on flood insurance will allow public to obtain insurance at a cost that's affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 11	Dam Failure Working Group
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Create a working group in order to assess the extent and determine the possible effects of a dam failure. In addition, the working group will be in charge of determining inundation zones as it relates to High Hazard Potential Dams (HHPD)
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Creation of working group will allow dams to be assessed and determine the possible outcomes during failure. This is a preventive measure that will allow the group to call upon others to reinforce structures if failure event is imminent.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 12	Crisis Rehearsal Scenarios
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Schedule and conduct Crisis Rehearsal scenarios involving various responder agencies.
Type of Mitigation Action	Local Plans and Regulations, Education and Awareness Programs
How Action Aligns with Risk Reduction	Crisis rehearsal scenarios will allow first responders to be equipped with the knowledge to respond to certain situations taking place during hazard events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 13	Sewer Back-Up Power
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Acquire back-up power for sewer lift stations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Having a back up power source for lift stations will ensure these stations remain operable during power outage events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 14	SCBA Equipment
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events
PRIORITY	Medium
Action Description	Acquire SCBA equipment.
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Acquisition of SCBA equipment will allow for fire fighters and essential personal in Vernon Parish to respond to wildfires in a safer and more efficient manner
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Wildfires

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 15	Emergency Roadblock Equipment
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events
PRIORITY	Medium
Action Description	Acquire emergency roadblock equipment
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Acquisition of emergency roadblock equipment will allow essential personal to place said equipment in roadways that block the public from traveling towards hazardous areas
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 16	Red Cross Structures
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Maintain Red Cross Structures
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Maintaining Red Cross structures will ensure that the buildings are more defensible against hazard events. This will allow said structures to remain operable during hazardous events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 17	Shelter Operations
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
Action Description	Train locals in Shelter operations.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Education of the public allows them to be more equipped in responding to ongoing hazardous events
Current Status of Action	Not Started – Carried Over
Hazard Addressed	Dam Failure, Excessive Heat, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 18	Back Up Fuel Supply
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Acquire/install 15,000-gallon diesel and unleaded gasoline storage tanks and necessary pumping equipment to provide a backup fuel supply for generators so that critical facilities to continue essential operations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Acquisition of back up fuel supplies will allow for essential personal to carry out day to day tasks or search and rescue efforts during hazard events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Extreme Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Storms

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 19	Roadside Warning Signs
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Acquire/install roadside warning signs to warn motorists of potential flooding hazards.
Type of Mitigation Action	Education and Awareness Programs, Natural Systems Protection
How Action Aligns with Risk Reduction	Warning signs will divert the public from certain areas that may be affected by ongoing hazards
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Flooding, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 20	Emergency Operations and Communications Center
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	High
Action Description	Construct a new Emergency Operations and Communications Center fitted with features to protect structure from high wind and flood events. This may include, among others, structure hardening, hurricane clips, building elevation, and the elevation of utility connectors and emergency generators.
Type of Mitigation Action	Structure and Infrastructure Projects, Local Plans and Regulations
How Action Aligns with Risk Reduction	Construction of an emergency operations center will allow for the parish to have a base for central command where they can carry out emergency preparedness strategies and disaster management functions
Current Status of Action	Not Started – Carried over from 2016 Plan
Hazard Addressed	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 21	Planning and Zoning Ordinances/Building Codes
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Improve and/or develop planning and zoning ordinances as well as building codes to include more effective flood, hurricane, and tornado protection regulations.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Fortifying building codes and zoning ordinances will decrease the impact of natural hazards
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding, Tornadoes, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 22	GIS Database
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Develop/maintain a comprehensive GIS database that will include the following: 1. All properties/parcels in the parish 2. Hazard areas 3. Service districts 4. Public works facilities 5. Transportation infrastructure 6. Special needs residence
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Having a database of specific items relevant to the parish will give essential personal an idea of what important areas need to be assessed during hazard events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 23	Property Damage Database
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Maintain a database of all properties that sustain damage as a result of a flood. Include information about the nature and extent of the damage. Incorporate this database into Parish Geographic Information System.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Database of RLP will allow government personal to take action in pursuing potential buyouts. Can also be used for mitigation personal to form further actions to address repeated flooding in certain areas.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 24	Subdivision Regulations Ordinance Update
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Review and update pertinent section(s) of the Vernon Parish Subdivision Regulations Ordinance in order to develop more stringent regulations requiring new and replacement sanitary sewage systems to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Updating subdivision ordinances will reduce the chance of loss/damage to neighborhoods in hazard prone areas
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 25	Forest Area Undergrowth
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Participate with appropriate authority to implement controlled burns to remove undergrowth in forested areas of the parish.
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Implementing controlled burns will remove undergrowth in forested areas, reducing the chance of wildfires
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Wildfires

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 26	Fire Lanes
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Maintain fire lanes to reduce spread of wildland fires
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Creation of fire lanes within mineral soil of a forested areas will restrict and control the spread of a wildfire while minimizing soil erosion and protect nearby bodies of water from sediment deposits
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Wildfires

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 27	Critical Bridge Elevation
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Elevate critical bridges in flood prone areas of the parish.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Elevation of bridges will reduce the impact of flooding in areas that are susceptible and allow for safer travel for the public.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 28	Critical Road Elevation
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Elevate critical roads in parish flood plains.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Elevation of critical roads will reduce the impact of flooding in areas that are susceptible and allow for safer travel for the public.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 29	Public Water and Sewer Line Extension
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Extend public water and sewer lines into the parish currently served only by private water wells and other sewage disposal methods.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Extending public water and sewer lines into the parish will allow for other areas to be serviced and not to only rely on private water wells
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 30	Beaver Dam Removal
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Remove Beaver Dams which contribute to flooding in the parish.
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Removal of beaver dams will prevent backwater flooding from becoming a nuisance to neighboring communities
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 31	Shallow-Rooted Tree Removal
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Remove shallow-rooted trees at all public school sites and administrative facilities (BMP) in parish.
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Removal of shallow rooted trees will decrease the likeliness of trees being uprooted during hazard events and causing damages/injury
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 VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 32	Crop Protection for Droughts
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	In association with Louisiana State University Cooperative Extension Services, provide technical assistance to Vernon Parish farmers in the form of forums, brochures, or web pages regarding possible funding sources for and the installation of irrigation systems to protect crops from drought conditions.
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Creating action plans for crop protection will reduce loss during drought related events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 33	Additional Communication Towers
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Construct additional communications towers at strategic locations to complete parish coverage.
Type of Mitigation Action	Structure and Infrastructure Projects, Education and Awareness Programs, Local Plans and Regulations
How Action Aligns with Risk Reduction	Additional communication towers will ensure that the entire parish is covered during hazard events and essential personnel can respond to calls appropriately
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 34	Construction of Floodwalls for Inundation Zones
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury, State of Louisiana
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Construct floodwalls for communities and/or the parish that are in inundation zones and can be impacted by the failure of a High Hazard Potential Dam (HHPD). The parish will work alongside with the Dam Failure Working Group and the State of Louisiana to determine where inundation zones are in the parish and where floodwalls will need to be placed.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Construction of floodwalls for communities will reduce the risk of flooding from a HHPD failure and reduce the risk of loss of life/property.
Current Status of Action	New
Hazard Addressed	Dam Failure, Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED VERNON PARISH	
DESCRIPTION	
VERNON PARISH MITIGATION ACTION 35	Auxiliary Spillway Addition for the Vernon Lake Dam
LEAD AGENCY	Vernon Parish OHSEP
SUPPORTING AGENCIES	Vernon Parish Police Jury, State of Louisiana
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Retrofit the Vernon Lake Dam with an auxiliary spillway, stabilizing the dam with anchors to prevent sliding and allowing it to hold more water
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Addition of an auxiliary spillway will allow Vernon Lake Dam to hold more water and prevent overtopping causing the surrounding areas to flood.
Current Status of Action	New
Hazard Addressed	Dam Failure, Flooding

Additional Supporting Information:



Village of Anacoco Mitigation Actions

Previous Action Update

Village of Anacoco						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	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.	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Anacoco 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.	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See Anacoco 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.	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Anacoco Mitigation Action 3)
A4: Safe Room Projects	Construction of a safe room for first responders located in Village of Anacoco. Other locations will be identified based on funding availability.	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Anacoco 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather 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, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Anacoco 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.	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Anacoco Mitigation Action 6)
A7: Lightning Mitigation	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property	HMGP, BRIC, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Thunderstorms	Not Started - Carried Over (See Anacoco Mitigation Action 7)
A8: Warning Systems	Update/upgrade public warning system components as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Anacoco 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.	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Anacoco 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).	HMGP, BRIC, FMA, Local	1-5 years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Flooding	Not Started - Carried Over (See Anacoco Mitigation Action 10)
A11: Dam/ Levee Failure Grant Funding	Seek out and apply for grant funding for the gathering and analysis of data related to a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Village of Anacoco)
A12: Dam/ Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Village of Anacoco Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Village of Anacoco)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after 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 ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Pursue various drainage projects throughout the Village that will relieve flooding problems, reduce flood damage, and limit the overtopping of roads during periods of high precipitation
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, Thunderstorms, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures, lowering the cost burden after flooding events
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 ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Village of Anacoco. 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 ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for dam and levee failure, 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 enhance resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 6. Improve communications throughout the parish during hazard events
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	Installation of generators at critical facilities will minimize downtime during an event and aid with local relief efforts
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 ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
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 ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 8	Warning Systems
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Update/upgrade public warning system components 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 ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 9	Potable Water
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 5. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Low
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	Educating the public on flood insurance will allow public to obtain insurance at a cost that’s affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ANACOCO	
DESCRIPTION	
VILLAGE OF ANACOCO MITIGATION ACTION 11	Heating and Cooling Stations
LEAD AGENCY	Village of Anacoco Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, HUD, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
Action Description	Designate climate-controlled centers to shelter residents in the event of utilities failures due to extreme weather, especially extreme cold or heat
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Excessive Heat, Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather

Additional Supporting Information:



Town of Hornbeck Mitigation Actions

Previous Action Update

Town of Hornbeck						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
H1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 1)
H2: 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, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See Town of Hornbeck 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.	HMGP, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 3)
H4: Safe Room Projects	Construction of a safe room for first responders located in Town of Hornbeck. Other locations will be identified based on funding availability.	HMGP, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 4)

H5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather 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, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Town of Hornbeck 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.	HMGP, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 6)
H7: Lightning Mitigation	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property	HMGP, BRIC, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Thunderstorms	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 7)
H8: Warning Systems	Update/upgrade public warning system components as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 8)
H9: 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, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 9)
H10: 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, BRIC, FMA, Local	1-5 years	Town of Hornbeck Mayor's Office/ Vernon Parish OHSEP	Flooding	Not Started - Carried Over (See Town of Hornbeck Mitigation Action 10)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after 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 TOWN OF HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Pursue various drainage projects throughout the town that will relieve flooding problems, reduce flood damage, and limit the overtopping of roads during periods of high precipitation
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, Thunderstorms, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures, lowering the cost burden after flooding events
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 HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Town of Hornbeck. 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 HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
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 enhance resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 6. Improve communications throughout the parish during hazard events
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	Installation of generators at critical facilities will minimize downtime during an event and aid with local relief efforts
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 HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
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 TOWN OF HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 8	Warning Systems
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Update/upgrade public warning system components 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 TOWN OF HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 9	Potable Water
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF HORNBECK	
DESCRIPTION	
TOWN OF HORNBECK MITIGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Town of Hornbeck Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 5. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Low
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	Educating the public on flood insurance will allow public to obtain insurance at a cost that’s affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



City of Leesville Mitigation Actions

Previous Action Update

City of Leesville Mitigation Actions						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
L1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Leesville Mitigation Action 1)
L2: 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, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See City of Leesville 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.	HMGP, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See City of Leesville Mitigation Action 3)
L4: Safe Room Projects	Construction of a safe room for first responders located in City of Leesville. Other locations will be identified based on funding availability.	HMGP, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Leesville Mitigation Action 4)
L5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Dam Failure, Drought, Excessive Heat, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Storms 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, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Leesville 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.	HMGP, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Leesville Mitigation Action 6)
L7: Lightning Mitigation	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property	HMGP, BRIC, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Thunderstorms	Not Started - Carried Over (See City of Leesville Mitigation Action 7)
L8: Warning Systems	Update/upgrade public warning system components as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Leesville Mitigation Action 8)
L9: 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, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Leesville Mitigation Action 9)
L10: 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, BRIC, FMA, Local	1-5 years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Flooding	Not Started - Carried Over (See City of Leesville Mitigation Action 10)
L11: Dam/Levee Failure Grant Funding	Seek out and apply for grant funding for the gathering and analysis of data related to a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Village of Anacoco)
L12: Dam/Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	City of Leesville Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Village of Anacoco)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after 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 CITY OF LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Pursue various drainage projects throughout the town that will relieve flooding problems, reduce flood damage, and limit the overtopping of roads during periods of high precipitation
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, Thunderstorms, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures, lowering the cost burden after flooding events
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 LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Leesville. 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 LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for dam and levee failure, 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 enhance resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 6. Improve communications throughout the parish during hazard events
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	Installation of generators at critical facilities will minimize downtime during an event and aid with local relief efforts
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 LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
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 LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 8	Warning Systems
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Update/upgrade public warning system components 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 LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 9	Potable Water
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 5. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Low
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	Educating the public on flood insurance will allow public to obtain insurance at a cost that’s affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF LEESVILLE	
DESCRIPTION	
CITY OF LEESVILLE MITIGATION ACTION 11	Heating and Cooling Stations
LEAD AGENCY	City of Leesville Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
Action Description	Designate climate-controlled centers to shelter residents in the event of utilities failures due to extreme weather, especially extreme cold or heat
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Excessive Heat, Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather

Additional Supporting Information:



Town of New Llano Mitigation Actions

Previous Action Update

Town of New Llano						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
NL1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See New Llano Mitigation Action 1)
NL2: 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, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See New Llano 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.	HMGP, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See New Llano Mitigation Action 3)
NL4: Safe Room Projects	Construction of a safe room for first responders located in Town of New Llano. Other locations will be identified based on funding availability.	HMGP, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See New Llano Mitigation Action 4)
NL5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Dam Failure, Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather 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, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See New Llano 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.	HMGP, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See New Llano Mitigation Action 6)
NL7: Lightning Mitigation	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property	HMGP, BRIC, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Thunderstorms	Not Started - Carried Over (See New Llano Mitigation Action 7)
NL8: Warning Systems	Update/upgrade public warning system components as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See New Llano Mitigation Action 8)
NL9: 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, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See New Llano Mitigation Action 9)
NL10: 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, BRIC, FMA, Local	1-5 years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Flooding	Not Started - Carried Over (See New Llano Mitigation Action 10)
NL11: Dam/Levee Failure Grant Funding	Seek out and apply for grant funding for the gathering and analysis of data related to a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Town of New Llano)
NL12: Dam/Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Town of New Llano Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Town of New Llano)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after 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 TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Pursue various drainage projects throughout the town that will relieve flooding problems, reduce flood damage, and limit the overtopping of roads during periods of high precipitation
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, Thunderstorms, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures, lowering the cost burden after flooding events
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 NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Town of New Llano. 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 NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for dam and levee failure, 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 enhance resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 6. Improve communications throughout the parish during hazard events
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	Installation of generators at critical facilities will minimize downtime during an event and aid with local relief efforts
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 NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
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 TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 8	Warning Systems
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Update/upgrade public warning system components 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 TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 9	Potable Water
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 5. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Low
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	Educating the public on flood insurance will allow public to obtain insurance at a cost that’s affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF NEW LLANO	
DESCRIPTION	
TOWN OF NEW LLANO MITIGATION ACTION 11	Heating and Cooling Stations
LEAD AGENCY	Town of New Llano Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, HUD, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
Action Description	Designate climate-controlled centers to shelter residents in the event of utilities failures due to extreme weather, especially extreme cold or heat
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Excessive Heat, Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather

Additional Supporting Information:



Town of Rosepine Mitigation Actions

Previous Action Update

Rosepine Mitigation Actions						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
R1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Rosepine 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, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See Rosepine 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.	HMGP, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Rosepine Mitigation Action 3)
R4: Safe Room Projects	Construction of a safe room for first responders located in Town of Rosepine. Other locations will be identified based on funding availability.	HMGP, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Rosepine 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather 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, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Rosepine 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.	HMGP, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Rosepine Mitigation Action 6)
R7: Lightning Mitigation	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property	HMGP, BRIC, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Thunderstorms	Not Started - Carried Over (See Rosepine Mitigation Action 7)
R8: Warning Systems	Update/upgrade public warning system components as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Rosepine 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, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Rosepine 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, BRIC, FMA, Local	1-5 years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Flooding	Not Started - Carried Over (See Rosepine Mitigation Action 10)
R11: Dam/Levee Failure Grant Funding	Seek out and apply for grant funding for the gathering and analysis of data related to a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Town of Rosepine)
R12: Dam/Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Town of Rosepine Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Town of Rosepine)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after 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 TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Pursue various drainage projects throughout the town that will relieve flooding problems, reduce flood damage, and limit the overtopping of roads during periods of high precipitation
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, Thunderstorms, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures, lowering the cost burden after flooding events
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 ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Town of Rosepine. 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 ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for dam and levee failure, 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 enhance resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 6. Improve communications throughout the parish during hazard events
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	Installation of generators at critical facilities will minimize downtime during an event and aid with local relief efforts
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 ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
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 TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 8	Warning Systems
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Update/upgrade public warning system components 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 TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 9	Potable Water
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 5. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Low
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	Educating the public on flood insurance will allow public to obtain insurance at a cost that’s affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF ROSEPINE	
DESCRIPTION	
TOWN OF ROSEPINE MITIGATION ACTION 11	Heating and Cooling Stations
LEAD AGENCY	Town of Rosepine Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, HUD, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
Action Description	Designate climate-controlled centers to shelter residents in the event of utilities failures due to extreme weather, especially extreme cold or heat
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Excessive Heat, Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather

Additional Supporting Information:



Village of Simpson Mitigation Actions

Previous Action Update

Simpson Mitigation Actions						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
S1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Simpson Mitigation Action 1)
S2: 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, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See Simpson 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.	HMGP, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Simpson Mitigation Action 3)
S4 Safe Room Projects	Construction of a safe room for first responders located in Village of Simpson. Other locations will be identified based on funding availability.	HMGP, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Simpson Mitigation Action 4)
S5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather 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, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Simpson 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.	HMGP, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Simpson Mitigation Action 6)
S7: Lightning Mitigation	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property	HMGP, BRIC, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Thunderstorms	Not Started - Carried Over (See Simpson Mitigation Action 7)
S8: Warning Systems	Update/upgrade public warning system components as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Simpson Mitigation Action 8)
S9: 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, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Simpson Mitigation Action 9)
S10: 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, BRIC, FMA, Local	1-5 years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Flooding	Not Started - Carried Over (See Simpson Mitigation Action 10)
S11: Dam/Levee Failure Grant Funding	Seek out and apply for grant funding for the gathering and analysis of data related to a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Village of Simpson)
S12: Dam/Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam and/or levee failure.	HMGP, BRIC, FMA, Local	1-5 Years	Village of Simpson Mayor's Office/ Vernon Parish OHSEP	Dam Failure, Flooding	Delete (Hazards not applicable to Village of Simpson)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after 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 SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Pursue various drainage projects throughout the town that will relieve flooding problems, reduce flood damage, and limit the overtopping of roads during periods of high precipitation
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, Thunderstorms, Tropical Cyclones

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures, lowering the cost burden after flooding events
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 SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Town of Simpson. 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 SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments 5. Enhance public awareness and understanding of disaster preparedness 6. Improve communications throughout the parish during hazard events
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for dam and levee failure, 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 enhance resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Drought, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 6. Improve communications throughout the parish during hazard events
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	Installation of generators at critical facilities will minimize downtime during an event and aid with local relief efforts
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 SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
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 SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 8	Warning Systems
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Medium
Action Description	Update/upgrade public warning system components 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 SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 9	Potable Water
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect of reduce damage to structures and assets from future hazards
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities 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, Excessive Heat, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 5. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Low
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	Educating the public on flood insurance will allow public to obtain insurance at a cost that’s affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried over from 2016 plan
Hazard Addressed	Flooding

Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIMPSON	
DESCRIPTION	
VILLAGE OF SIMPSON MITIGATION ACTION 11	Heating and Cooling Stations
LEAD AGENCY	Village of Simpson Mayor’s Office
SUPPORTING AGENCIES	Vernon Parish OHSEP
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, HUD, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> 1. Implement measures and actions to minimize hazard impacts immediately prior to, during, or in response to hazard events 2. Implement measures to protect or reduce damage to structures and assets from future hazards 3. Encourage sound development practice or implement other actions to reduce or eliminate impacts of future hazards 4. Reduce hazard impacts through modifications to built or natural environments
PRIORITY	Low
Action Description	Designate climate-controlled centers to shelter residents in the event of utilities failures due to extreme weather, especially extreme cold or heat
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Excessive Heat, Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather

Additional Supporting Information:



Action Prioritization

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

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

The steering committee prioritized the possible activities that could be pursued. Steering committee members consulted appropriate agencies in order to assist with the prioritizations. The results were items that address the major hazards, are appropriate for those hazards, are cost-effective, and are affordable. The steering committee met both internally and with SDMI staff for mitigation action meetings to review and approve mitigation actions for Vernon Parish and the incorporated jurisdictions. 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.

Vernon 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.

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

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Appendix A: Planning Process

Purpose

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

The Vernon Parish Hazard Mitigation Plan Update

The Vernon Parish Hazard Mitigation Plan Update process began in January 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
1/4/2022	Kick Off Email	Email	No	Schedule kick off call with Parish OHSEP and SDMI Staff.
1/11/2022	Kick Off Meeting	Phone Conference	No	Discuss with the Parish OHSEP Director Police Jury Secretary the expectations and requirements of the project. Discuss meeting schedules, committee make up, and next steps.
1/26/2022	Initial Planning Committee Meeting	Leesville, LA	No	Discussion with Vernon Parish Hazard Mitigation Steering Committee the process and expectations of plan participants. Discuss timeline and action items of each jurisdiction and parish.
2/16/2021	Mitigation Action Workshop	Leesville, LA	No	Discussion with Vernon Parish Hazard Mitigation Steering Committee of the outstanding data required for plan update, as well as discussion of mitigation actions (old and new) for plan update. Continued timeline discussions.
3/16/2022	Risk Assessment Review	Leesville, LA	Yes	Presentation of Risk Assessment Hazards and maps to Steering Committee.
3/16/2022	Public Meeting	Leesville, LA	Yes	Presentation of Risk Assessment Hazards and maps to Public. Presentation also includes current mitigation project highlights within communities and public survey discussion.
01/04/2022 – 03/31/2023	Public Opinion Survey	Online	Yes	This survey asked participants about public perceptions and opinions regarding natural hazards in Vernon Parish. In addition, questions covered the methods and techniques preferred for reducing the risks and losses associated with these hazards. Survey link: https://www.surveymonkey.com/r/VernonHM2022

Planning

The plan update process consisted of several phases:

	Months 1-4	Months 5-8	Months 9-12	Months 13-16	Months 17-20	Months 21-24
Plan Revision						
Data Collection						
Risk Assessment						
Public Input						
Mitigation Strategy						
GOHSEP/FEMA Plan Review						
FEMA APA						
Plan Adoptions Start						
Final Plan Approval						

Coordination

The Vernon Parish Office of Homeland Security and Emergency Preparedness (OHSEP) and Vernon Parish Police Jury oversaw the coordination of the 2023 Hazard Mitigation Plan Update Steering Committee during the update process. The parish OHSEP was responsible for identifying members for the committee. Representatives of relevant local and parish government departments were invited for inclusion in the planning process via email. The parish OHSEP also attempted to include members of private and nonprofit organizations within the parish, but did not receive a response. There are no higher education institutions in Vernon Parish; therefore, no members of academia could be included in the planning process.

The Parish Director was responsible for inviting the steering committee and key stakeholders to planned 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 steering committee encouraged participation from a broad range of parish entities. The involvement of representatives from the city, state, and regional agencies provided diverse perspectives and mitigation ideas.

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

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

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

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

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

Vernon Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Belinda Diehl	Parish Secretary	Vernon Parish Police Jury	belinda@vppjla.com
Cara McDaniel	Town Clerk	Town of Hornbeck	townofhornbeck@bellsouth.net
Carl Thompson	Parish Road Manager	Vernon Parish Police Jury	carl@vppjla.com
Kenneth Moore	OEP Director	Vernon Parish OEP	kmoore@vernonso.org
Vickie Standifer	Mayor	Village of Simpson	simpsonmayor@att.net
Patti Larney	City Administrator	City of Leesville	cityadmin@leesvillela.gov
Caroline Todd	Mayor	Town of New Llano	townofnewllano@yahoo.com
Donna Duval	Mayor	Town of Rosepine	mayor@townofrosepine.com
Keith Lewing	Mayor	Village of Anacoco	anacoco@cebridge.net

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 Vernon 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) and parish planning and zoning and building code enforcement.

Vernon 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 Vernon 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
- HHDP Emergency Action 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 - Kick-Off Meeting

Date: January 11, 2022

Location: Zoom VTC Platform

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

Public Invitation: No

Meeting Invitees:

Vernon Parish Hazard Mitigation Planning Committee		
Name	Title	Agency
Belinda Diehl	Parish Secretary	Vernon Parish Police Jury
Kenneth Moore	OEP Director	Vernon Parish OEP
Chris Rippetoe	Program Manager	SDMI

Meeting #2: Hazard Mitigation Plan – Initial Planning Committee Meeting**Date:** January 26, 2022**Location:** Leesville, 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 Steering Committee. Assign each individual tasks related to the parish data collection for the plan update.

Public Invitation: No**Meeting Invitees:**

Vernon Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Belinda Diehl	Parish Secretary	Vernon Parish Police Jury	belinda@vppjla.com
Cara McDaniel	Town Clerk	Town of Hornbeck	townofhornbeck@bellsouth.net
Carl Thompson	Parish Road Manager	Vernon Parish Police Jury	carl@vppjla.com
Kenneth Moore	OEP Director	Vernon Parish OEP	kmoore@vernonso.org
Vickie Standifer	Mayor	Village of Simpson	simpsonmayor@att.net
Patti Larney	City Administrator	City of Leesville	cityadmin@leesvillela.gov
Caroline Todd	Mayor	Town of New Llano	townofnewllano@yahoo.com
Donna Duval	Mayor	Town of Rosepine	mayor@townofrosepine.com
Keith Lewing	Mayor	Village of Anacoco	anacoco@cebridge.net

Meeting #3: Hazard Mitigation Plan – Mitigation Action Workshop**Date:** February 16, 2022**Location:** Leesville, LA

Purpose: Discussion with Vernon 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:**

Vernon Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Belinda Diehl	Parish Secretary	Vernon Parish Police Jury	belinda@vppjla.com
Cara McDaniel	Town Clerk	Town of Hornbeck	townofhornbeck@bellsouth.net
Carl Thompson	Parish Road Manager	Vernon Parish Police Jury	carl@vppjla.com
Kenneth Moore	OEP Director	Vernon Parish OEP	kmoore@vernonso.org
Vickie Standifer	Mayor	Village of Simpson	simpsonmayor@att.net
Patti Larney	City Administrator	City of Leesville	cityadmin@leesvillela.gov
Caroline Todd	Mayor	Town of New Llano	townofnewllano@yahoo.com
Donna Duval	Mayor	Town of Rosepine	mayor@townofrosepine.com
Keith Lewing	Mayor	Village of Anacoco	anacoco@cebridge.net

Meeting #4: Hazard Mitigation Plan – Risk Assessment Presentation to Planning Committee

Date: March 16, 2022

Location: Leesville, LA

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

Public Invitation: No

Meeting Invitees:

Vernon Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Belinda Diehl	Parish Secretary	Vernon Parish Police Jury	belinda@vppjla.com
Cara McDaniel	Town Clerk	Town of Hornbeck	townofhornbeck@bellsouth.net
Carl Thompson	Parish Road Manager	Vernon Parish Police Jury	carl@vppjla.com
Kenneth Moore	OEP Director	Vernon Parish OEP	kmoore@vernonso.org
Vickie Standifer	Mayor	Village of Simpson	simpsonmayor@att.net
Patti Larney	City Administrator	City of Leesville	cityadmin@leesvillela.gov
Caroline Todd	Mayor	Town of New Llano	townofnewllano@yahoo.com
Donna Duval	Mayor	Town of Rosepine	mayor@townofrosepine.com
Keith Lewing	Mayor	Village of Anacoco	anacoco@cebridge.net

Meeting #5: Hazard Mitigation Plan – Public Meeting

Date: March 16, 2022

Location: Leesville, LA

Purpose: The Public Meeting allowed the public and community stakeholders to participate and provide input into the hazard mitigation planning process.

Public Invitation: Yes

Meeting Invitees:

Vernon Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Belinda Diehl	Parish Secretary	Vernon Parish Police Jury	belinda@vppjla.com
Cara McDaniel	Town Clerk	Town of Hornbeck	townofhornbeck@bellsouth.net
Carl Thompson	Parish Road Manager	Vernon Parish Police Jury	carl@vppjla.com
Kenneth Moore	OEP Director	Vernon Parish OEP	kmoore@vernonso.org
Vickie Standifer	Mayor	Village of Simpson	simpsonmayor@att.net
Patti Larney	City Administrator	City of Leesville	cityadmin@leesvillela.gov
Caroline Todd	Mayor	Town of New Llano	townofnewllano@yahoo.com
Donna Duval	Mayor	Town of Rosepine	mayor@townofrosepine.com
Keith Lewing	Mayor	Village of Anacoco	anacoco@cebridge.net

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 Vernon Parish residents was conducted between January 2022 and March 2023. The survey was designed to capture public perceptions and opinions regarding natural hazards in Vernon 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 March 31, 2023, there have been zero responses to the Vernon Parish Hazard Mitigation Public Opinion Survey. Full survey results can be found here: <https://www.surveymonkey.com/r/VernonHM2022>

Outreach Activity #2: Public Meeting Activity - Incident Questionnaire

Date: March 16, 2022

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 Vernon Parish regarding hazard events and their localized impacts. While the information collected via the questionnaire was to be integrated into this planning document, there was no public turnout for the meeting, and subsequently no results could be collected. A copy of the incident questionnaire can be found on the next page.

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

Date: Ongoing

Location: SDMI Hazard Mitigation Website

Public Initiation: Yes

After an initial review by the Vernon Parish Planning Committee was completed, the 2023 Vernon Parish Hazard Mitigation Plan was made available for public review and comment. The plan was hosted on SDMI's Hazard Mitigation website: <https://hmplans.sdmi.lsu.edu/Home/Parish/vernon>

VERNON PARISH PUBLIC MEETING

PUBLIC ACTIVITY: INCIDENT/ ISSUE QUESTIONNAIRE

1. HAZARD TYPE(S):

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

2. DESCRIBE INCIDENT OR ISSUE:

[Empty text box for describing the incident or issue]

3. LOCATION:

A. CITY:

B. ADDRESS OR AREA:

4. INTENSITY:

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

B. WIND STRENGTH

5. RECURRING OR ONE TIME:

A. IF RECURRING, HOW OFTEN:

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

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

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

Appendix B: Plan Maintenance

Purpose

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

Implementing, Monitoring, Evaluating, and Updating the Plan

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

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

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

Methods for Monitoring and Evaluating the Plan and Plan Evaluation Criteria

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

and update the plan. The Vernon 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 Steering Committee meeting. The Steering Committee will review each goal to determine their relevance to changing situations in the parish, as well as changes to state or federal policy, and to ensure that they are addressing current and expected conditions. The Steering Committee will evaluate if any change in hazard profile and risk in the parish occurred during the past year. In addition, the evaluation will include the following criteria in respect of plan implementation:

1. Any local staffing changes that would warrant inviting different members to the planning committee
2. Any new organizations that would be valuable in the planning process or project implementation need to be included in the planning committee
3. Any new or existing procedures that can be done more efficiently
4. Any additional ways to gain more diverse and widespread cooperation
5. Any different or additional funding sources available for mitigation planning and implementation

The HMP will be updated every five years to remain eligible for continued HMGP funding. The Steering Committee will be responsible for updating the HMP. The OHSEP Director will be the lead person for the HMP update. The HMP update process will commence at least one year prior to the expiration of the plan. The HMP will be updated after a major disaster if an annual evaluation of the plan indicates a substantial change in hazard profile and risk assessment in the parish.

Additionally, the public will be canvassed to solicit public input to continue Vernon 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 Steering Committee will work together as a team, with each member sharing responsibility for completing the monitoring, evaluation and updates. It is the responsibility of the Parish OHSEP Director for contacting committee members, organizing the meeting and providing public noticing for the meeting to solicit public input.

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 Vernon Parish Hazard Mitigation Plan Steering Committee and participating jurisdictions to determine additional implementation procedures when appropriate. This may include integrating the requirements of the Vernon 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
- HHPD Emergency Action Plan

Opportunities to integrate the requirements of this plan into other local planning mechanisms will continue to be identified through future meetings of the Vernon Parish Hazard Mitigation Steering Committee and through the five-year review process described herein. The primary means for integrating mitigation strategies into other local planning mechanisms will be through the revision, update and implementation of each jurisdiction's individual plans that require specific planning and administrative tasks (e.g. risk assessment, plan amendments, ordinance revisions, capital improvement projects, etc.). Specific to High Hazard Potential Dams, community officials and dam owners work very closely to ensure the structural integrity and mitigation efforts of any high hazard dams in the parish.

While there have been no instances of the mitigation strategy being incorporated into other planning documents since the adoption of the 2016 Vernon Parish Hazard Mitigation Plan, the committee members recognize the importance of a holistic approach across all planning efforts and will use their standing to integrate the mitigation strategy outlined in the 2023 Vernon Parish 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 steering 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 Anacoco, Town of Hornbeck, City of Leesville, Town of New Llano, Town of Rosepine, and the Village of Simpson, Vernon Parish has the authority to incorporate the contents of the Hazard Mitigation Plan into the parish’s existing regulatory mechanisms. Agreements are currently in place with jurisdictions to allow for the parish incorporation mechanisms to take place.

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

Vernon Parish			
<i>Comprehensive/Master Plan</i>	Updated as needed	Vernon Parish Police Jury	✓
<i>Capital Improvements Plan</i>	Updated as needed	Vernon Parish Police Jury	✓
<i>Continuity of Operations Plan</i>	Updated as needed	Vernon Parish Police Jury	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Vernon Parish Police Jury	✓
<i>Transportation Plan</i>	Updated as needed	Vernon Parish Police Jury	✓
<i>Economic Development Plan</i>	Updated as needed	Vernon Parish Police Jury	✓
<i>HHPD Emergency Action Plan</i>	Updated as needed	Vernon Parish Police Jury	✓
Village of Anacoco			
<i>Capital Improvements Plan</i>	Updated as needed	Village of Anacoco Mayor’s Office	✓
<i>Economic Development Plan</i>	Updated as needed	Village of Anacoco Mayor’s Office	✓

Town of Hornbeck

<i>Capital Improvement Plan</i>	Updated as needed	Town of Hornbeck Mayor's Office	✓
<i>Economic Development Plan</i>	Updated as needed	Town of Hornbeck Mayor's Office	✓

City of Leesville

<i>Comprehensive/Master Plan</i>	Updated as needed	Vernon Parish Police Jury and Leesville Mayor's Office	✓
<i>Economic Development Plan</i>	Updated as needed	Leesville Office of Economic Development	✓
<i>Continuity of Operations Plan</i>	Updated as needed	Vernon Parish OHSEP and Leesville Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Vernon Parish OHSEP and Leesville Mayor's Office	✓

Town of New Llano

<i>Comprehensive/Master Plan</i>	Updated as needed	Town of New Llano Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Town of New Llano Mayor's Office	✓
<i>Economic Development Plan</i>	Updated as needed	Town of New Llano Mayor's Office	✓
<i>Stormwater Management Plan</i>	Updated as needed	Town of New Llano Mayor's Office	✓

Town of Rosepine

<i>Capital Improvement Plan</i>	Updated as needed	Town of Rosepine Mayor's Office	✓
<i>Economic Development Plan</i>	Updated as needed	Town of Rosepine Mayor's Office	✓

Village of Simpson

<i>Comprehensive/Master Plan</i>	Updated as needed	Vernon Parish Police Jury and Simpson Mayor's Office	✓
<i>Capital Improvement Plan</i>	Updated as needed	Simpson Mayor's Office	✓
<i>Economic Development Plan</i>	Updated as needed	Vernon Parish Police Jury and Simpson Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Vernon Parish OHSEP and Simpson Mayor's Office	✓
<i>Continuity of Operations Plan</i>	Updated as needed	Vernon Parish OHSEP and Simpson Mayor's Office	✓

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 Vernon Parish Planning Area

Vernon Parish Planning Area Critical Facilities											
Type	Name	Dam Failure	Drought	Excessive Heat	Flooding	Levee Failure	Thunderstorms	Tornadoes	Tropical Cyclones	Wildfires	Winter Weather
Government	Anacoco Town Hall		x	x			x	x	x	x	x
	Hornbeck Town Hall		x	x			x	x	x	x	x
	Simpson Village Hall		x	x			x	x	x	x	x
	New Llano City Hall		x	x			x	x	x		x
	Vernon Parish School Board		x	x			x	x	x		x
	Rosepine Municipal Complex		x	x			x	x	x	x	x
	Leesville Municipal Center Annex		x	x			x	x	x		x
	Department of Public Safety		x	x			x	x	x		x
	Vernon Parish Chamber of Commerce		x	x			x	x	x		x
	Vernon Council on Aging		x	x			x	x	x		x
	Vernon Parish Courthouse		x	x			x	x	x	x	x
	Vernon Police Jury		x	x			x	x	x	x	x
	Office of District Attorney Asa Skinner		x	x			x	x	x	x	x
	Vernon Parish Assessor's Office		x	x			x	x	x		x
	Vernon Parish Department of Public Safety		x	x			x	x	x		x
	Department of Veterans Affairs		x	x			x	x	x	x	x
Vernon Community Action Council		x	x			x	x	x	x	x	
Vernon Parish Office of the Registrar of Voters		x	x			x	x	x		x	

Fire & SAR	Anacoco Town Hall Fire Station		x	x			x	x	x		x
	Fire Station 1 District 3		x	x			x	x	x	x	x
	Alco-Hutton Volunteer Fire Dept. - Kurthwood Substation		x	x			x	x	x		x
	Alco-Hutton Volunteer Fire Department		x	x			x	x	x	x	x
	Simpson Volunteer Fire Department		x	x			x	x	x	x	x
	La Camp Fire Department		x	x			x	x	x	x	x
	Sandy Hill Fire Department		x	x			x	x	x		x
	Evans Volunteer Fire Department		x	x			x	x	x		x
	Burr Ferry Fire Department		x	x			x	x	x	x	x
	Savage Forks Volunteer Fire Department		x	x			x	x	x	x	x
	Pitkin Volunteer Fire Department		x	x			x	x	x		x
	Marlow Fire Department		x	x			x	x	x		x
	Cravens Fire Department		x	x			x	x	x	x	x
	Community Fire Department		x	x			x	x	x	x	x
	Caney Volunteer Fire Dept		x	x			x	x	x	x	x
	Knight Community Volunteer Fire Department - Station No. 11		x	x			x	x	x	x	x
	Dry Fork Volunteer Fire Department		x	x			x	x	x	x	x
	Leesville Fire Department		x	x			x	x	x	x	x
	Leesville Fire Station		x	x			x	x	x	x	x
	New Llano Fire Department		x	x			x	x	x	x	x
Rosepine Fire Department Station 1		x	x			x	x	x	x	x	
Sandy Creek Fire Department		x	x			x	x	x	x	x	
Tesanders Memorial Fire Station		x	x			x	x	x	x	x	

Law Enforcement	Vernon Parish Sheriff's Office-Pitkin Substation		x	x			x	x	x		x
	Leesville Police Department		x	x			x	x	x	x	x
	Simpson Police Department		x	x			x	x	x	x	x
	Rosepine Police Department		x	x			x	x	x	x	x
	Anacoco Police Department		x	x			x	x	x		x
	Hornbeck Police Department		x	x			x	x	x	x	x
	New Llano Police Department		x	x			x	x	x		x
	Vernon Parish Sheriff's Office Substation		x	x			x	x	x	x	x
Public Health	Vernon Parish Sheriff's Office and Jail		x	x			x	x	x		x
	Byrd Regional Medical		x	x			x	x	x		x
	Doctors Hospital at Deer Creek		x	x			x	x	x		x
Schools	Rosepine Elementary School		x	x			x	x	x	x	x
	Anacoco High School		x	x			x	x	x		x
	Anacoco Elementary School		x	x			x	x	x	x	x
	Hornbeck Elementary School		x	x			x	x	x	x	x
	Hornbeck High School		x	x			x	x	x		x
	Simpson High School		x	x	x		x	x	x		x
	Pickering Elementary School		x	x			x	x	x		x
	Pickering High School		x	x			x	x	x	x	x
	Rosepine High School		x	x			x	x	x	x	x
	Evans High School		x	x			x	x	x		x
	Pitkin High School		x	x			x	x	x	x	x
	West Leesville Elementary		x	x			x	x	x	x	x
	Leesville High		x	x			x	x	x	x	x
	Leesville JR High		x	x			x	x	x	x	x
	Vernon Middle School		x	x			x	x	x	x	x
	Vernon Parish Special Education Center		x	x			x	x	x		x
East Leesville Elementary		x	x			x	x	x	x	x	
Hicks High School		x	x			x	x	x	x	x	

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Appendix D: Plan Adoption

Vernon Parish

State of Louisiana

Parish of Vernon



SPECIAL CALL MEETING AUGUST 14, 2023

RESOLUTION No. 30 of 2023

**A RESOLUTION OF THE VERNON PARISH POLICE JURY
TO ADOPT THE
2022 VERNON PARISH MULTI JURISDICTION
HAZARD MITIGATION PLAN UPDATE**

WHEREAS the VERNON PARISH POLICE JURY recognizes the threat that natural hazards pose to people and property within VERNON PARISH; and

WHEREAS the VERNON PARISH has prepared a multi-hazard mitigation plan, hereby known as 2022 VERNON PARISH MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS 2022 VERNON PARISH MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in VERNON PARISH from the impacts of future hazards and disasters; and

WHEREAS adoption by the VERNON PARISH POLICE JURY demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2022 VERNON PARISH MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE.

NOW THEREFORE, BE IT RESOLVED BY THE VERNON PARISH POLICE JURY, THAT IN ACCORDANCE WITH APPLICABLE LAWS, WE HERBY ADOPT THE 2022 VERNON PARISH MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE.

On motion by Mr. Stephen "Quintin" Thompson, seconded by Mr. Malcolm "Dean" Mitchell, the foregoing resolution was unanimously adopted on this the 14th day of August, 2023, at which meeting a quorum was present.

Rhonda M. Plummer

Rhonda M. Plummer
Parish Administrator/Treasurer

James B. Tuck

James B. Tuck
President

STATE OF LOUISIANA

PARISH OF VERNON

I, Belinda S. Diehl, Parish Secretary of the Police Jury of Vernon Parish, Louisiana do hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Vernon Parish Police Jury in special session on Monday, August 14, 2023 at which meeting a quorum was present.

GIVEN UNDER MY OFFICIAL signature and seal of office on this 15th day of August, 2023, in Leesville, Louisiana.



Belinda S. Diehl

Belinda S. Diehl
Parish Secretary

Village of Anacoco



KEITH LEWING
Mayor

Village of Anacoco
P.O. Box 280 • Anacoco, LA 71403
(337) 239-0215 • Fax (337) 238-5550

JOHN SCHRAVEN
JOHN GUY
SHANE FREEMAN
Council Members

RESOLUTION #3-2023
Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update
VILLAGE OF ANACOCO

A resolution of the Council authorizing the Village of Anacoco to adopt the 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update.

WHEREAS, the Village of Anacoco recognizes the threat that natural hazards pose to people and property within the Village of Anacoco: and

WHEREAS, the Village of Anacoco has prepared a multi-hazard mitigation plan, hereby known as 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update in accordance with the Disaster Mitigation Act of 2000: and

WHEREAS, 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in The Village of Anacoco from the impacts of future hazards and disasters: and

WHEREAS, adoption by the Village of Anacoco demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update.

NOW, THEREFORE, BE IT RESOLVED, by the Council of the Village of Anacoco in regular session authorize the Village of Anacoco that in accordance with applicable laws, We hereby adopt the Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update.

On a motion by Councilmember John Schraven seconded by Councilmember John Guy this resolution is adopted by the Village of Anacoco in regular session on this 12th day of September 2023 with the following votes, to wit:

Yea: 3 Nay: 0 Absent: 0 Abstain: 0

Rindie Racca
Rindie Racca
City Clerk

Keith Lewing
Keith Lewing
Mayor



Town of Hornbeck

Town of Hornbeck
Louisiana
Resolution No. 16-2023

A RESOLUTION OF THE Town of Hornbeck

Hornbeck Mitigation Plan November 6, 2023

WHEREAS the Town of Hornbeck Mayor and Alderman recognizes the threat that natural hazards pose to people and property within the Town of Hornbeck; and

WHEREAS the Town of Hornbeck has prepared a multi-hazard mitigation plan, hereby known as Hornbeck Mitigation Plan November 6, 2023 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS Hornbeck Mitigation Plan November 6, 2023 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Town of Hornbeck from the impacts of future hazards and disasters; and

WHEREAS adoption by the Town of Hornbeck Mayor and Alderman demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Hornbeck Mitigation Plan November 6, 2023.

NOW THEREFORE, BE IT RESOLVED BY THE Town of Hornbeck, LOUISIANA, THAT:

On a motion by Hyatt seconded by Lantier Resolution No. 16-2023 was adopted on the 6th day of November, 2023

YEAS: Whiddon, Lantier, Hyatt, & Parker

NAYS: None

ABSENT: Ellis

ABSTAIN: None



Cara McDaniel-Clerk





Clarence Beebe- Mayor

City of Leesville

CITY OF LEESVILLE
Resolution 69 of 2023

A RESOLUTION ADOPTING THE 2022 MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE AND AUTHORIZING THE MAYOR TO SIGN AND EXECUTE ANY AND ALL RELATED DOCUMENTS IN CONNECTION HERETO.

WHEREAS, the CITY OF LEESVILLE recognized threats that natural hazards pose to its citizens and properties within the city limits of Leesville; and

WHEREAS, the Vernon Parish Policy Jury prepared a multi jurisdiction hazard plan update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, adopting the 2022 Multi Jurisdiction Hazard Mitigation Plan Update demonstrates that the City of Leesville is committed and dedicated to the goals outlined therein.

NOW, THEREFORE, BE IT RESOLVED, by the Mayor and City Council of the City of Leesville, Louisiana, in regular session, to adopt the 2022 Multi Jurisdiction Hazard Mitigation Plan Update and authorize the Mayor to sign and execute any all documents in connection hereto, effective as of the date of the last signature contained in this Resolution.

On a motion by Councilmember Guez seconded by Councilmember Hunt this resolution is adopted by the City of Leesville in regular session on this 13th day of November 2023 with the following votes:

Yeas: 7
 Nays: 0
 Abstains: 0
 Absents: 0



Sonny Harrell
 City Clerk



Rick Allen
 Mayor

Town of New Llano

RESOLUTION 6 OF 2023**A RESOLUTION OF THE TOWN OF NEW LLANO
TO ADOPT THE
2022 VERNON PARISH MULTI JURISDICTION
HAZARD MITIGATION PLAN UPDATE**

- WHEREAS** the TOWN OF NEW LLANO recognizes the threat that natural hazards pose to people and property within VERNON PARISH; and
- WHEREAS** the VERNON PARISH POLICE JURY has prepared a multi-hazard mitigation plan, hereby known as 2022 VERNON PARISH MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE in accordance with the Disaster Mitigation Act of 2000; and
- WHEREAS** 2022 VERNON PARISH MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in VERNON PARISH from the impacts of future hazards and disasters; and
- WHEREAS** adoption by the TOWN OF NEW LLANO demonstrates our commitment to the hazard mitigation and achieving the goals outlined in the 2022 VERNON PARISH MULTI JURISDICTION HAZARD MITIGATION PLAN UPDATE.

NOW THEREFORE, BE IT RESOLVED BY THE TOWN OF NEW LLANO,
THAT IN ACCORDANCE WITH APPLICABLE LAWS, WE HERBY
ADOPT THE 2022 VERNON PARISH MULTI JURISDICTION HAZARD
MITIGATION PLAN UPDATE.

Passed and adopted by the Mayor and Town Council of the Town of New Llano,
Parish of Vernon, State of Louisiana, on this 12th Day of December, 2023.


Carolyn H. Todd, Mayor


Donna Condon, Town Clerk

I, Donna Condon, Town Clerk for the Town of New Llano, Louisiana, do hereby certify that the above and foregoing constitutes a true and correct copy of a Resolution passed and adopted by the Mayor and Town Council of the Town of New Llano on December 12th, 2023.


Donna Condon, Town Clerk

Town of Rosepine

TOWN OF ROSEPINE
Post Office Box 528
18846 Johnny B. Hall Memorial Highway
ROSEPINE, LOUISIANA 70659
(337) 463-8908 Fax (337) 463-6935

Donna W. Duvall, Mayor
 Melissa A. Numbers, Town Clerk

BJ Bjornberg, Alderman
 Ray Blanchard, Alderman
 Leonard Johnson, Alderman
 Jeff Solinsky, Alderman
 Damon Johnson, Alderman

RESOLUTION #22 OF 2023

WHEREAS, Louisiana State Law, R.S. 48:753, authorizes the parish governing authority, upon request of a municipality within the parish to perform road repair maintenance within the municipality, and

WHEREAS, each road maintenance project is initiated only upon request of the municipality, therefore

BY RESOLUTION, by the Mayor and Council (Aldermen) of the Town of Rosepine, Louisiana, that we respectfully request the Vernon Parish Police Jury to perform monthly maintenance on the streets inside the town limits of Rosepine, such as, boom mowing, pot hole repairs, and ditching for the month of December 2023.

BE IT FURTHER RESOLVED, that a certified copy of this resolution be sent to the Vernon Parish Police Jury, along with a map of the municipality on which the location of all public road and streets have been indicated. It is understood and agreed that the police jury can refuse to provide maintenance on any street or road indicated on said map if such road or street does not serve a clearly defined public need.

BE IT FURTHER RESOLVED, that except for negligent acts of the parish, its agents, and employees, this council shall assume all liabilities for and save the parish, its agents and employee, harmless from any and all claims for damages, actions or causes of action arising out of the work done as a result of this request.

On a roll call vote the above-mentioned resolution was adopted by the following vote:

YEAS: Jeff Solinsky, BJ Bjornberg, Damon Johnson, Leonard Johnson

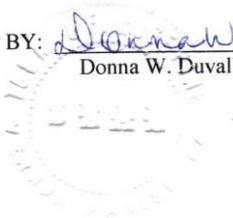
NAYS: None

ABSTAINED: None

ABSENT: Ray Blanchard

WHEREUPON, the resolution was declared adopted on this 28th day of November, 2023.

BY: Donna W. Duvall
 Donna W. Duvall, Mayor



"The Town of Rosepine is an Equal Opportunity Provider and Employer." To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202)720-6382 (TDD).

Village of Simpson

Village of Simpson
Parish of Vernon

RESOLUTION #03-2023

A Resolution of the Village of Simpson to Adopt the 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update,

WHEREAS, the Village of Simpson Board of Alderpersons recognizes the threat that natural hazards pose to people and property within Vernon Parish: and,

WHEREAS, the Village of Simpson has prepared a multi-hazard mitigation plan, hereby known as the 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update in accordance with the Disaster Mitigation Act of 2020: and

WHEREAS, 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Vernon Parish from the impacts of future hazards and disasters; and

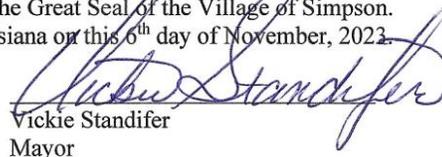
WHEREAS, adoption by the Village of Simpson Board of Alderpersons demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update

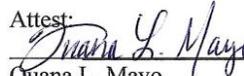
NOW, THEREFORE, BE IT RESOLVED, by the Board of Alderpersons of the Village of Simpson, that in accordance with the applicable laws, we hereby Adopt the 2022 Vernon Parish Multi Jurisdiction Hazard Mitigation Plan Update.

On a motion by Councilwoman, Amy Long, seconded by Councilwoman, Heather Parker, the above resolution is adopted by the following vote on this 6th day of November, 2023,

Yeas: 2 (Amy Long, Heather Parker)
Nays: 0
Absent: 1 (Neil Standifer)
Abstain: 0

In Witness Whereof, I have here unto set my hand officially
and caused to be affixed the Great Seal of the Village of Simpson.
Louisiana on this 6th day of November, 2023.


Vickie Standifer
Mayor

Attest:

Quana L. Mayo
Municipal Clerk



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

Vernon Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Belinda Diehl	Parish Secretary	Vernon Parish Police Jury	belinda@vppjla.com
Cara McDaniel	Town Clerk	Town of Hornbeck	townofhornbeck@bellsouth.net
Carl Thompson	Parish Road Manager	Vernon Parish Police Jury	carl@vppjla.com
Kenneth Moore	OEP Director	Vernon Parish OEP	kmoore@vernonso.org
Vickie Standifer	Mayor	Village of Simpson	simpsonmayor@att.net
Patti Larney	City Administrator	City of Leesville	cityadmin@leesvillela.gov
Caroline Todd	Mayor	Town of New Llano	townofnewllano@yahoo.com
Donna Duval	Mayor	Town of Rosepine	mayor@townofrosepine.com
Keith Lewing	Mayor	Village of Anacoco	anacoco@cebridge.net

Capability Assessment
Vernon Parish

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

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

Village of Anacoco

Capability Assessment Worksheet - Village of Anacoco		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	Yes / No	Comments
Comprehensive / Master Plan	No	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan		
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	Yes	
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		

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	No	
Community Planner	No	
Civil Engineer	Yes	
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	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	Yes	

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

Town of Hornbeck

Capability Assessment Worksheet - Town of Hornbeck		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	Yes / No	Comments
Comprehensive / Master Plan	No	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)		
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	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		

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	No	
Community Planner	No	
Civil Engineer	Yes	
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	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)	No	
Other Funding Programs	Yes	

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

City of Leesville

Capability Assessment Worksheet - City of Leesville		
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	Yes	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)		
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating		
Site plan review requirements	Yes	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	Yes	
Other		

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	Yes / No	Comments
Planning Commission	Yes	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	Yes / No	Comments
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	No	
Civil Engineer	Yes	
GIS Coordinator	No	
Grant Writer	Yes	
Other	No	
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	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	LGAP

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	Yes	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Town of New Llano

Capability Assessment Worksheet - Town of New Llano		
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	Yes	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)		
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	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		

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	No	
Community Planner	No	
Civil Engineer	Yes	
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	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)	No	
Other Funding Programs	Yes	

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

Town of Rosepine

Capability Assessment Worksheet - Town of Rosepine		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	Yes / No	Comments
Comprehensive / Master Plan	No	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	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)	No	
Hazard Data & Information	No	
Grant Writing	No	
Hazus Analysis	No	
Other	No	

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

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

Village of Simpson

Capability Assessment Worksheet - Village of Simpson		
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	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)		
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	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		

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	No	
Civil Engineer	Yes	
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	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)	No	
Other Funding Programs	Yes	

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

Building Inventory

Vernon Parish Planning Area Building Information								
Unincorporated Vernon Parish								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Evans High School	Education	18829 Louisiana 111	Evans	30.98895959	-93.5014647			
Adult Education Center	Education	7460 Colorado Ave. Bldg. 660	Fort Polk	31.00958481	-93.27922956			
Pitkin High School	Education	7239 LA 463	Pitkin	30.93686792	-92.93353398			
Community Fire Department	Fire Search and Rescue	172 Louisiana 112	Elizabeth	30.94202012	-92.84803707			
Evans Volunteer Fire Department	Fire Search and Rescue	125 Fal Road	Evans	30.98482194	-93.50156172			
Pitkin Volunteer Fire Department	Fire Search and Rescue	12778 Louisiana 10	Pitkin	30.93528683	-92.93788375			
Marlow Fire Department	Fire Search and Rescue	118 Marlow Road	Pitkin	30.96262237	-93.11370353			
Cravens Fire Department	Fire Search and Rescue	11816 Pitkin Highway	Pitkin	30.96619136	-93.03657091			
Vernon Parish Sheriff's Office Substation	Law Enforcement	12863 LA 113	Pitkin	30.9346742	-92.93546542			
Vernon Parish Office of Family Support	Civil Government	1591 Bell Richard Avenue # 920	Fort Polk	31.11247055	-93.27502889			
The Humane Society of West Louisiana	Civil Government	19301 Hwy 171	Pitkin	30.8984818	-93.2887719			
Vernon Parish School Board	Education	201 Belview Rd	Leesville	31.152362	-93.261544			
Vernon Parish Chamber of Commerce	Civil Government	1309 North 5th Street	Leesville	31.158463	-93.265412			
Vernon Council on Aging	Civil Government	200 North 3rd Street	Leesville	31.144225	-93.261504			
Vernon Parish Courthouse	Civil Government	101 West Lee Street	Leesville	31.142289	-93.260787			
Vernon Parish Police Jury	Civil Government	300 South 3rd Street	Leesville	31.141755	-93.26149			
Office of District Attorney	Civil Government	208 South 3rd Street	Leesville	31.14235	-93.261386			
Vernon Parish Assessor's Office	Civil Government	301 East Courthouse St.	Leesville	31.142499	-93.260531			
Vernon Parish Department of Public Safety	Law Enforcement	203 South 3rd Street	Leesville	31.141707	-93.260586			
Vernon Community Action Council	Civil Government	12286 Lake Charles Hwy	Leesville	31.079892	-93.273089			
Vernon Parish Office of the Registrar of Voters	Civil Government	East Courthouse St.	Leesville	31.142459	-93.260644			
Vernon Parish Animal Shelter	Civil Government	272 J.L. O'banion Rd	Leesville	31.10386315	-93.24313235			
Vernon Parish Landfill	Civil Government	344 J L O'banion Rd	Leesville	31.10161155	-93.24523869			
Vernon Parish Child Welfare Office	Civil Government	113 South 3rd Street	Leesville	31.13387035	-93.2663348			
Department of Public Safety	Civil Government	9219 Shreveport Hwy	Leesville	31.15981535	-93.26560049			
Vernon Parish Sales Tax Department	Civil Government	207 Belview Road	Leesville	31.1523638	-93.26184593			

Vernon Parish Correctional Facility	Prisons and Correctional Facilities	2294 Slagle Road	Leesville	31.15058078	-93.18973996			
Vernon Parish Sheriff's Office Substation	Law Enforcement	Nearby: 301-329 H M Stevens Boulevard	Leesville	31.14753338	-93.28792142			
Vernon Parish Sheriff's Office	Law Enforcement	Nearby: 301 East Courthouse Street	Leesville	31.14228938	-93.26066579			
Vernon Parish Sheriff's Office	Law Enforcement	Nearby: 1301-1399 South 3rd Street	Leesville	31.13118391	-93.26462999			
Dry Fork Volunteer Fire Department	Fire Search and Rescue	185 Louisiana 111	Leesville	31.22909081	-93.21518284			
Unknown Fire Station	Fire Search and Rescue	Ida Stevens Road	Leesville	31.08420866	-93.2772121			
Unknown Fire Station	Fire Search and Rescue	3928 Louisiana 121	Hicks	31.18231392	-93.00050711			
Unknown Fire Station	Fire Search and Rescue	109 East South Street	Slagle	31.20157569	-93.12847918			
Caney Volunteer Fire Dept	Fire Search and Rescue	144 Louisiana 464	Caney	31.11899604	-93.3882056			
Providence Volunteer Fire Department	Fire Search and Rescue	R.C. Calcote Rd.	Rosepine	30.95639674	-93.20925683			
Savage Forks Volunteer Fire Department	Fire Search and Rescue	4078 Savage Forks Road	Coopers	31.04421723	-93.34584359			
Burr Ferry Fire Department	Fire Search and Rescue	23466 Louisiana 8	Burr Ferry	31.07155672	-93.48613057			
Sandy Hill Fire Department	Fire Search and Rescue	6810 LA-10	Sandy Hill	31.02864268	-93.24741909			
Lacamp Fire Department	Fire Search and Rescue	6413 Louisiana 121	Lacamp	31.16736356	-92.92327489			
Alco-Hutton Volunteer Fire Department	Fire Search and Rescue	3531 LA-465	Hutton	31.33235793	-93.0714307			
Alco-Hutton Volunteer Fire Dept. - Kurthwood Substation	Fire Search and Rescue	1270 Louisiana 117	Kurthwood	31.33150682	-93.17379384			
Hicks High School	Education	1296 Par Road 831	Hicks	31.18236075	-92.98179791			
Pickering Elementary School	Education	116 Lebleu Road	Pickering	31.03891294	-93.27213601			
Pickering High School	Education	180 Lebleu Road	Pickering	31.03917759	-93.27115884			

Village of Anacoco

Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Anacoco High School	Education	4740 Port Arthur Avenue	Anacoco	31.25242569	-93.33882907			
Anacoco Elementary School	Education	4726 Port Arthur Avenue	Anacoco	31.25221237	-93.33773651			
Sandy Creek Fire Department	Fire Search and Rescue	10544 Louisiana 392	Anacoco	31.19384945	-93.49371333			

T. E. Sanders Memorial Fire Station	Fire Search and Rescue	1674 Front Street	Anacoco	31.25109347	-93.3421247			
Anacoco Police Department	Law Enforcement	4973 Main Street	Anacoco	31.24582403	-93.33849804			
Anacoco Town Hall	Civil Government	4973 Main Street	Anacoco	31.24577738	-93.33849371			
Anacoco Fire Department	Fire Search and Rescue	4973 US 171	Anacoco	31.24561433	-93.33821857			

Town of Hornbeck

Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Hornbeck Elementary School	Education	4726 Port Arthur Avenue	Hornbeck	31.32545958	-93.39516409			
Hornbeck High School	Education	2363 Stillwell Avenue	Hornbeck	31.32530783	-93.39438281			
Fire Station 1 District 3	Fire Search and Rescue	Nearby: Shreveport Highway	Hornbeck	31.32931661	-93.39999252			
Fire Tower	Fire Search and Rescue	Nearby: 240-452 Louisiana 473	Hornbeck	31.30870372	-93.4152278			
Hornbeck Police Department	Law Enforcement	1083 Hammond Street	Hornbeck	31.32550149	-93.39838779			
Hornbeck Town Hall	Civil Government	1083 Hammond Street	Hornbeck	31.32541957	-93.39837271			

City of Leesville

Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Vernon Parish Special Education Center	Education	201 Belview Road	Leesville	31.15284595	-93.26140709			
West Leesville Elementary	Education	1200 Abe Allen Memorial Drive	Leesville	31.13808018	-93.27979832			
Leesville High	Education	502 Berry Drive	Leesville	31.1504898	-93.25729481			
Leesville Jr. High	Education	480 Berry Drive	Leesville	31.14810069	-93.25872551			
Vernon Middle School	Education	1410 Nona Street	Leesville	31.15148339	-93.27609455			
East Leesville Elementary	Education	203 Belview Road	Leesville	31.15218118	-93.2596521			
Leesville Substation District 36	Emergency Medical Services	108 East Texas Street	Leesville	31.14367791	-93.26267853			
Leesville Fire Department	Fire Search and Rescue	2201 Jean Street	Leesville	31.13442513	-93.2843933	\$534,000.00	2006	NONCOMB
Leesville Fire Station	Fire Search and Rescue	198 East South Street	Leesville	31.13963694	-93.26271506	\$500,000.00	1960	NONCOMB
Leesville Municipal Center Annex	Civil Government	101 W Lee St.	Leesville	31.14348776	-93.26422761	\$50,000.00	1965	Cinder Block
Leesville City Hall	Civil Government	508 S. 5th St.	Leesville	31.13958773	-93.26405381	\$846,827.00	1961	Frame
Leesville Police Department	Law Enforcement	101 W Lee St.	Leesville	31.14348976	-93.26425239	\$2,775,683.00	1910	Frame

Town of New Llano

Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
New Llano Fire Department	Fire Search and Rescue	213 Stanton Street	New Llano	31.11604285	-93.27523842			
New Llano City Hall	Civil Government	109 Stanton Street	New Llano	31.115585	-93.27359102			
New Llano Police Department	Law Enforcement	109 Stanton Street	New Llano	31.115585	-93.27359102			

Town of Rosepine								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Rosepine Town Hall	Civil Government	18846 Johnny B. Hall Memorial Hwy.	Rosepine	30d 54'41.99"N	93d 17'06.96"W	1,264,600	2008	Reinforced Masonry
Rosepine Police Department	Police Department	18846 Johnny B. Hall Memorial Hwy.	Rosepine	30d 54'41.99"N	93d 17'06.96"W	1,264,600	2008	Reinforced Masonry
Rosepine Volunteer Fire Department	House Fire Equipment and Trucks	6567 Fagan Circle	Rosepine	30d 54'53.41"N	93d 16'54.07"W	N/A	1967	Metal
Wastewater Treatment Plant	Treat raw sewerage	1377 Yocum	Rosepine	30d 54'58.86"N	93d 17'43.65"W	147,553	1975 - 2013	Wood
Leach Road Lift Station	Pump Station	18808 Johnny B. Hall Mem. Hwy	Rosepine	30d 54'46.02"N	93d 17'03.55"W	94,000	2012	Metal
Barbara Drive Lift Station	Pump Station	240 Barbara Drive	Rosepine	30d 54'38.76"N	93d 16'39.72"W	94,000	2013	Metal
Hwy. 1146 Lift Station	Pump Station	4415 Hwy. 1146	Rosepine	30d 55'11.88"N	93d 16'47.10"W	87,000	2009	Metal
Yankee Ridge Rd. Lift Station	Pump Station	141 Yankee Ridge Road	Rosepine	30d 55'03.03"N	93d 16'05.11"W	87,000	2005	Metal
Bailey Road Lift Station	Pump Station	6324 Bailey Road	Rosepine	30d 55'22.56"N	93d 16'51.49"W	40,000	2009	Metal
Weeks Road Lift Station	Pump Station	7594 Weeks Road	Rosepine	30d 55'49.67"N	93d 17'30.31"W	87,000	2012	Metal
Main Street Lift Station	Pump Station	8485 Main Street	Rosepine	30d 55'21.88"N	93d 18'00.98"W	87,000	2009	Metal
Water Plant	Public Works	6462 First Street	Rosepine	30d 55'09.94"N	93d 16'50.27"W	35,393	? - 2010	Metal
Well #3	Produce water	2299 Ruth Street	Rosepine	30d 54'47.77"N	93d 16'57.28"W	60,000	1976	Metal
Well #4	Produce water	2429 Ruth Street	Rosepine	30d 54'43.51"N	93d 16'59.41"W	63,000	1986	Metal
Well #5	Produce water	10095 Lewis Road	Rosepine	30d 55'34.26"N	93d 19'44.08"W	243,000	2003	Metal
Water Tower	Store water	224 Louisiana Avenue	Rosepine	30d 55'48.28"N	93d 17'08.22"W	410,000	1990	Steel
Generator - Wastewater Treatment Plant	Utilities	1201 Yocum Street	Rosepine	30d 54'58.86"N	93d 17'43.65"W	30,000	2012	Metal
Generator - Well #5	Utilities	10095 Lewis Road	Rosepine	30d 55'34.26"N	93d 19'44.08"W	50,000	2012	Metal
Village of Simpson								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Simpson Village Hall	Civil Government	4464 Louisiana 8	Simpson	31.26292644	-93.01611792	\$250,000.00	1970	Brick
Simpson Police Department	Law Enforcement	4464 LA HWY 8	Simpson	31.26297648	-93.01613508	\$50,000.00	1970	Brick
Simpson High School	Education	4262 Louisiana 8	Simpson	31.26183463	-93.00970406			
Simpson Volunteer Fire Department	Fire Search and Rescue	4464 Louisiana 8	Leesville	31.26306249	-93.01615794	\$200,000.00	1974	Metal

Vulnerable Populations

Vulnerable Populations Worksheet					
Vernon Parish Planning Area					
All Hospitals (Private or Public)	Address	City	Zip Code	Latitude	Longitude
Byrd Regional Medical	1020 Fertitta Boulevard	Leesville	71446	31.13871144	-93.26906606
Doctor's Hospital	1020 Fertitta Boulevard	Leesville	71446	31.13569115	-93.26883146
Nursing Homes (Private or Public)	Address	City	Zip Code	Latitude	Longitude
Rosepine Retirement and Rehabilitation	18364 Johnny B Hall Memorial Hwy	Rosepine	70659	30d 55'25.68"N	93d 16'59.20"W
New Llano Seniors	301 Harper Street	New Llano	71461	31.11404393	-93.2784586
Mobile Home Parks	Address	City	Zip Code	Latitude	Longitude
Craft's Mobile Home Park	7196 Main Street	Rosepine	70659	30d 55'18.41"N	93d 17'14.13"W
Hattie's Hill Mobile Home Park	6411 First Street	Rosepine	70659	30d 55'06.18"N	93d 16'50.37"W
Meyers owned Mobile Home Park	6137 First Street	Rosepine	70659	30d 55'04.71"N	93d 16'39.31"W
Calhoun Mobile Home Park	Nearby: 7028 Calhoun Street	Rosepine	70659	30°55'21.92"N	93°17.'08.42"W
Wildlife Management Area Campground	Nearby: Louisiana 464	Evans	71446	31.05082082	-93.40138845
Ray's Mobile Home Park	427 Pitkin Road	Pickering	71446	31.03335963	-93.27452352
JD's RV Park	Nearby: Lake Charles Highway	Pickering	71446	31.03036914	-93.27118195
Pecan Acres RV Park	8119 Hawks Road	Pickering	71446	30.94283206	-93.28350484
Unknown	Nearby: 742-2332 Louisiana 458	Pitkin	70656	30.96103929	-92.96283143
Vernon Lake RV Park	168 Sapphire Lane	Anacoco	71446	31.22933524	-93.36738294
Sarver Trailer Park	3090 U.S. 171	Anacoco	71446	31.23143221	-93.34692106
Thaxton's Landing	Nearby: Thaxton Landing Road	Anacoco	71403	31.22290773	-93.33917618
Unknown RV Park	1000 Hodges Loop	Anacoco	71429	31.27969273	-93.349804
Boswell's Mobile Home Park	Nearby: 301-599 Stanton Road	New Llano	71461	31.11591982	-93.27909661
Arlington RV Park	12932 Lake Charles Highway	Leesville	71446	31.06238772	-93.27644037
Quality RV Park	1910 South 5th Street	Leesville	71446	31.03014457	-93.23037736
Unknown Trailer Park	Nearby: 288 Lonnie Jenae Loop	Leesville	71446	31.0261515	-93.2392041
Pecan Acres RV	8119 Hawks Road	Leesville	71446	30.94288459	-93.28355001
Unknown	Nearby: 174-198 Pecan Grove Road	Leesville	71446	30.95671294	-93.28592461
Unknown	Nearby: 180 Cooper Church Road	Leesville	71446	31.03743992	-93.27546945
Unknown	Nearby: 40 Par Road 5	Leesville	71446	31.03749429	-93.27699173
Unknown	Nearby: 2472 Par Road 5	Leesville	71446	31.03477544	-93.3472798
Unknown	Nearby: 261 Par Road 13	Leesville	71446	31.04557248	-93.33777521
Unknown	Nearby: 179-223 Kvvp Drive	Leesville	71446	31.05074022	-93.27730346
Green Acres Mobile Home Park	728 Browns Lane	Leesville	71446	31.03823709	-93.2908259
Trailer Park	Boswell Trailer Park	Leesville	71461	31.12873849	-93.26165316
Shady Lake RV Park	168 Sapphire Lane	Leesville	71446	31.17324091	-93.27717743
RV Park	1840 Alexandria Highway	Leesville	71446	31.17609313	-93.10635526
Trailer Park	Nearby: 1902 Alexandria Highway	Leesville	71446	31.20647112	-92.98826341
Liberty Creek RV	Nearby: 201-267 Ridgewood Boulevard	Leesville	71446	31.11870922	-93.19468946
Trailer Park	Boswell Trailer Park	Leesville	71461	31.13849724	-93.2372515
Elimelech Mobile Homes	3986 Vfw Road	Leesville	71446	31.08455748	-93.32042178
Trailer Park	Boswell Trailer Park	Leesville	71461	31.07032349	-93.25340457

