

# 2023 WINN PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

---

UNINCORPORATED WINN PARISH,  
ATLANTA, CALVIN, DODSON, SIKES,  
WINNFIELD





# WINN PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE

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## ACKNOWLEDGMENTS

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

Winn Parish  
Village of Atlanta  
Village of Calvin  
Village of Dodson  
Village of Sikes  
City of Winnfield

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## 1. Introduction

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

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

- Winn Parish
- Village of Atlanta
- Village of Calvin
- Village of Dodson
- Village of Sikes
- City of Winnfield

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

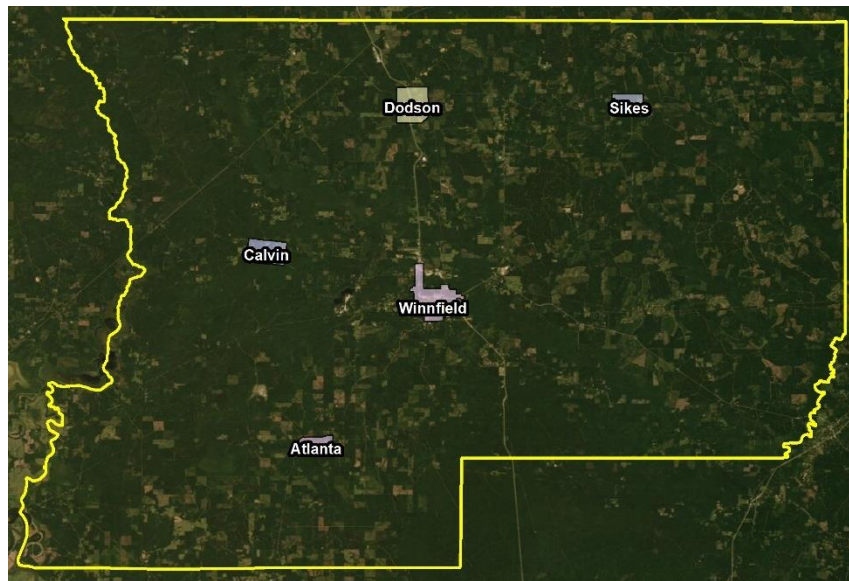
## Geography, Population and Economy

### Geography

Winn Parish is located in north-central Louisiana, approximately 45 miles north of Alexandria and approximately 60 miles southeast of Shreveport (*Figure 1-1*). Although Winn Parish is one of the larger parishes in Louisiana in terms of area, consisting of approximately 957 square miles, it is currently the 11<sup>th</sup> least populated parish in the state. The parish is surrounded by Grant Parish to the south, Natchitoches Parish to the east, Bienville Parish and Jackson Parish to the north, Caldwell Parish and LaSalle Parish to the west. Winn Parish extends 30 miles north to south, and approximately 40 miles east to west. The Red River forms the boundary of the parish for a few miles in the far southwest corner. Saline Bayou and Saline River also form a large portion of the western border of the parish. The Dugdemona River flows diagonally through the parish, starting in the northwest corner and slowing down toward the southeast corner.



*Figure 1-1: Location of Winn Parish in the State of Louisiana*



*Figure 1-2: Incorporated Jurisdictions within Winn Parish*

The topography of Winn Parish is relatively consistent throughout the parish. At just under 400,000 acres, mostly pine and hardwood forestland makes up approximately 65% of the parish area. There are a number of water bodies that lie within the parish boundaries, most notably the Dugdemona River and Saline Lake. Although urban development only makes up approximately 4% of the parish area, the largest concentration of urban development is found in the central and north-central portions of the parish.

Winn 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 Winn 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 approximately one inch per year. Average annual rainfall for the area is 58 inches. Winn Parish is susceptible to the normal weather dangers, such as thunderstorms and flooding, but due to its proximity to the Gulf of Mexico, the parish is also susceptible to tropical cyclones. Hurricane season lasts from June 1st to November 30th, with most hurricanes forming in August, September, and October.

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

As noted previously, Winn Parish is located in the north-central region of Louisiana.



*Figure 1-3: Louisiana Homeland Security Regions*

### Population

The population of Winn Parish is estimated at 13,755 (2020 census) with a population percent change from April 1, 2010 – April 1, 2020 of -11.33%.

*Table 1-1: Winn Parish Population  
(Source: US Census)*

	2010 Census	2014 Estimate	2020 Census	Percent Change 2010 - 2020
<b>Total Population</b>	15,313	14,743	13,755	-11.33%
<b>Population Density (Pop/Sq. Mi.)</b>	16.1	-----	14.5	-11.03%
<b>Total Households</b>	7,234	7,232	5,361	-34.94%
<b>Persons Per Household</b>	-----	-----	2.29	-----

### Economy

A hard-working labor force, abundant raw materials, location near a corridor of significant industrial activity, and land for commercial and industrial development make Winn Parish an ideal prospect for business investment. Forestry is a leading industry and of extreme importance to the welfare of Winn Parish. Other elements of the Winn Parish economy include mineral production, petroleum refining, chemical and petrochemical manufacturing, and agriculture and food processing. Industry data for business patterns in Winn Parish can be found in the table on the next page.



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

Business Description	Number of Establishments	Number of Employees	Annual Payroll (\$1,000)
Retail Trade	39	425	12,659
Manufacturing	13	683	39,280
Health Care and Social Assistance	38	927	37,933
Transportation and Warehousing	9	23	1,131
Construction	11	39	1,744
Administration/Support and Waste Management/Remediation Services	6	171	5,405
Real Estate and Rental and Leasing	7	22	662
Wholesale Trade	7	79	3,043
Other Services (except Public Administration)	33	374	12,877
Accommodation and Food Services	20	224	2,507
Financial and Insurance	21	101	3,903
Professional, Scientific, and Technical Services	20	63	2,052
Agriculture, Forestry, Fishing and Hunting	24	417	23,744
Mining, quarrying, and oil and gas extraction	6	29	1,020
Utilities	3	6	68
Arts, entertainment, and recreation	3	11	244
Information	3	9	500

## Hazard Mitigation

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

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

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

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

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

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



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

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

## General Strategy

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

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

The 2023 Winn 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 Winn 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 Winn 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 Winn Parish Hazard Mitigation Plan. The current goals are as follows:

1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards
2. Enhance public awareness and understanding of disaster preparedness and mitigation
3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities
4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards

This plan update makes a number of textual changes throughout, but the most obvious changes are data related and structural edits. First, the National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information's (NCEI) Storm Events Database was used in the analysis, which provides historical hazard data from 1950 to 2021. The planning committee was also instrumental in providing detailed data where appropriate to more accurately reflect hazard impacts on the parish and jurisdictions. Furthermore, all of the sections were updated to reflect the most current information and the most current vision of the plan update. The most significant changes are the newly developed hazard profiles and risk assessments, as well as the removal of much repetition between sections from the previous plan updates.

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

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



*Table 1-3: 2023 Plan Update Crosswalk*

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

Despite numerous changes in this plan update, the plan remains consistent in its emphasis on the types of hazards that pose the most risk to loss of life, injury, and property in Winn Parish and its communities. The extent of this risk is dictated primarily by its geographic location. Most significantly, Winn 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 Winn 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 Winn 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 Winn 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
<b>Drought</b>	X		X
<b>Flooding</b>	X	X	X
<b>Sinkholes</b>	X		X
<b>Thunderstorms (Hail, Lightning, &amp; Wind)</b>	X	X	X
<b>Tornadoes</b>	X	X	X
<b>Tropical Cyclones</b>	X	X	X
<b>Wildfires</b>	X		X
<b>Winter Weather</b>			X

### Prevalent Hazards to the Community

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

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

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

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

The potential destructive power of tropical cyclones was determined to be the most prevalent hazard to the parish. Seventeen of the twenty-three disaster declarations Winn Parish have received resulted from tropical cyclones (12) or flooding (5), which validates these as the most significant hazards. Therefore, the issue 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 Winn Parish is included in the hurricane risk assessment.

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

*Table 2-2: Winn Parish Major Disaster Declarations.*

Disaster Number	Year	Declaration
675	1983	Severe Storms and Flooding
804	1987	Tornadoes and Flooding
829	1989	Severe Storms and Flooding
835	1989	Tropical Cyclone – Tropical Storm Allison
904	1991	Severe Storms, Tornadoes, and Flooding
1264	1999	Severe Ice Storm
3172	2003	Loss of Space Shuttle Columbia

Disaster Number	Year	Declaration
1603	2005	Tropical Cyclone – Hurricane Katrina
1607	2005	Tropical Cyclone – Hurricane Rita
1668	2006	Severe Storms and Flooding
1786	2008	Tropical Cyclone – Hurricane Gustav
4263	2016	Flood
4484	2020	COVID-19 Pandemic
3527	2020	Tropical Cyclone – Tropical Storm Cristobal
3538	2020	Tropical Cyclone – Tropical Storms Laura and Marco
4559	2020	Tropical Cyclone – Hurricane Laura
3543	2020	Tropical Cyclone – Hurricane Sally
4570	2020	Tropical Cyclone – Hurricane Delta
3549	2020	Tropical Cyclone – Tropical Storm Zeta
3556	2021	Severe Winter Storm
4590	2021	Severe Winter Storms
4611	2021	Tropical Cyclone – Hurricane Ida
3574	2021	Tropical Cyclone – Tropical Storm Nicholas

### Probability of Future Hazard Events

The probability of a hazard event occurring in Winn 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 2021. In staying consistent with the state plan, the Storm Events Database was evaluated for the last thirty years (1990 – 2021) to determine future probability of a hazard occurring. While the 31-year record used by the State was adopted for the purpose of determining the overall probability, to assist with determining estimated losses, unless otherwise stated, the full 71-year record was used when Hazus was not available to determine losses. This full record was used to provide a more extensive record to determine losses. All assessed damages were adjusted for inflation in order to reflect the equivalent amount of damages with the value of the U.S. dollar today. The table on the next page shows the annual probability for each hazard occurring across the parish:

*Table 2-3: Probability of Future Hazard Reoccurrence.*

Hazard	Probability					
	Winn Parish (Unincorporated)	Atlanta	Calvin	Dodson	Sikes	Winnfield
<b>Drought</b>	29%	29%	29%	29%	29%	29%
<b>Flooding</b>	48%	16%	23%	6%	6%	29%
<b>Sinkholes</b>	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
<b>Thunderstorms - Hail</b>	100%	100%	100%	100%	100%	100%
<b>Thunderstorms - Lightning</b>	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
<b>Thunderstorms - Winds</b>	100%	100%	100%	100%	100%	100%
<b>Tornadoes</b>	77%	77%	77%	77%	77%	77%
<b>Tropical Cyclones</b>	26%	26%	26%	26%	26%	26%
<b>Wildfires</b>	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
<b>Winter Weather</b>	36%	36%	36%	36%	36%	36%

As shown in the table above, hailstorms and high winds have the highest chance of occurrence in the parish (100%). These are followed by tornadoes (77%), flooding for the unincorporated area of the parish (48%), winter weather (36%), flooding for the incorporated area of Winnfield and drought (29%), tropical cyclones (26%), flooding for the incorporated area of Dodson and Sikes (6%). Sinkholes, lightning, and wildfires have an annual chance of occurrence of less than 1%.

### Inventory of Assets for the Entire Parish

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

Within the entire planning area, there is an estimated value of \$2,192,384,000 in structures throughout the parish. The table below provides the total estimated value for each type of structure by occupancy.

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

Occupancy	Winn Parish	Unincorporated Area	Atlanta	Calvin	Dodson	Sikes	Winnfield
<b>Agricultural</b>	\$7,508,000	\$6,830,000	\$0	\$0	\$0	\$0	\$678,000
<b>Commercial</b>	\$260,508,000	\$92,913,000	\$746,000	\$916,000	\$4,111,000	\$1,987,000	\$159,835,000
<b>Government</b>	\$17,140,000	\$911,000	\$394,000	\$0	\$948,000	\$598,000	\$14,289,000
<b>Industrial</b>	\$102,909,000	\$82,952,000	\$1,873,000	\$311,000	\$3,669,000	\$314,000	\$13,790,000
<b>Religion</b>	\$98,544,000	\$60,345,000	\$692,000	\$0	\$2,720,000	\$676,000	\$34,111,000
<b>Residential</b>	\$1,688,791,000	\$1,113,880,000	\$18,558,000	\$26,654,000	\$33,962,000	\$13,938,000	\$481,799,000
<b>Education</b>	\$16,984,000	\$4,361,000	\$0	\$903,000	\$0	\$0	\$11,720,000
<b>Total</b>	<b>\$2,192,384,000</b>	<b>\$1,362,192,000</b>	<b>\$22,263,000</b>	<b>\$28,784,000</b>	<b>\$45,410,000</b>	<b>\$17,513,000</b>	<b>\$716,222,000</b>



## Critical Facilities of the Parish

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

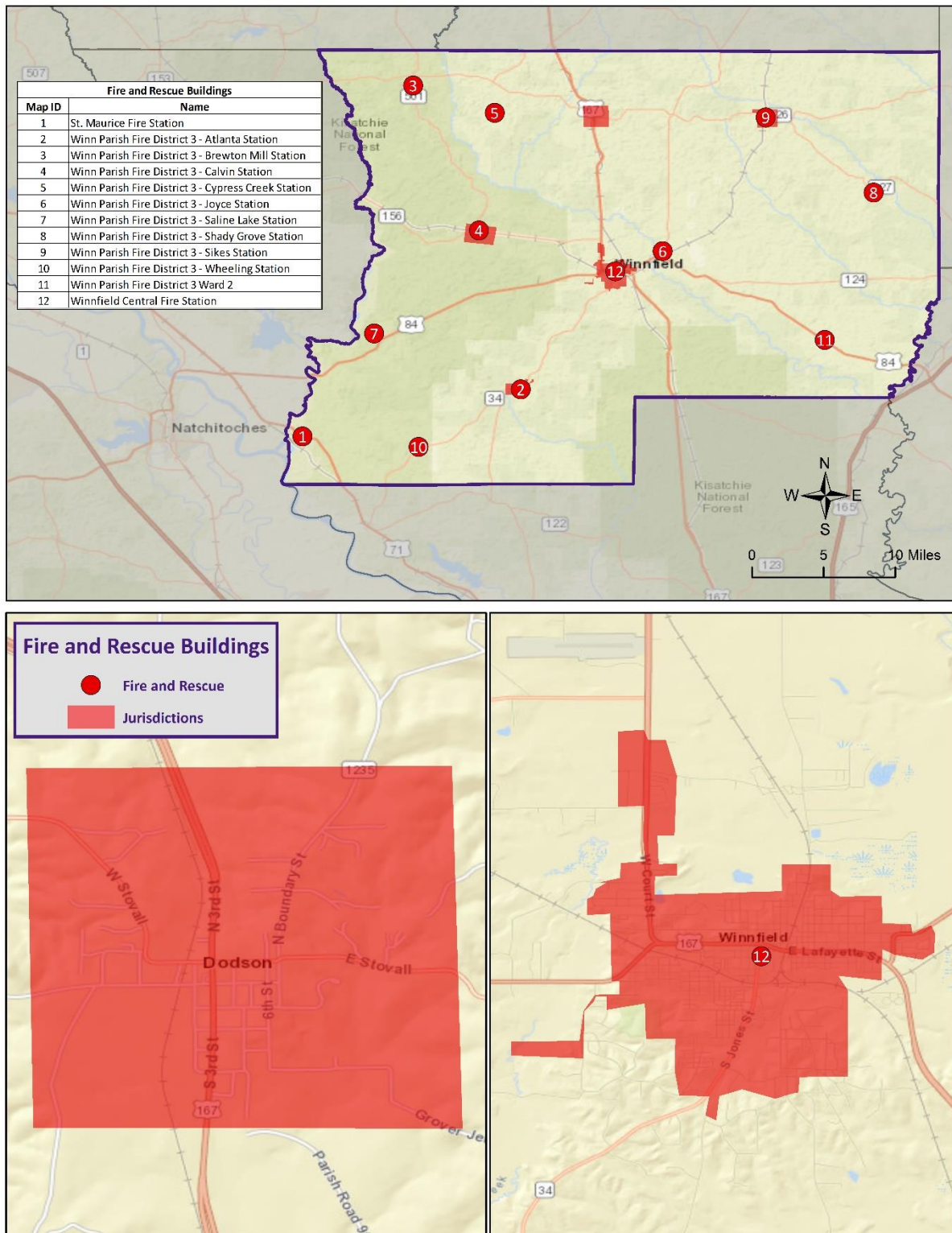


Figure 2-1: Fire and Rescue Facilities in Winn Parish.

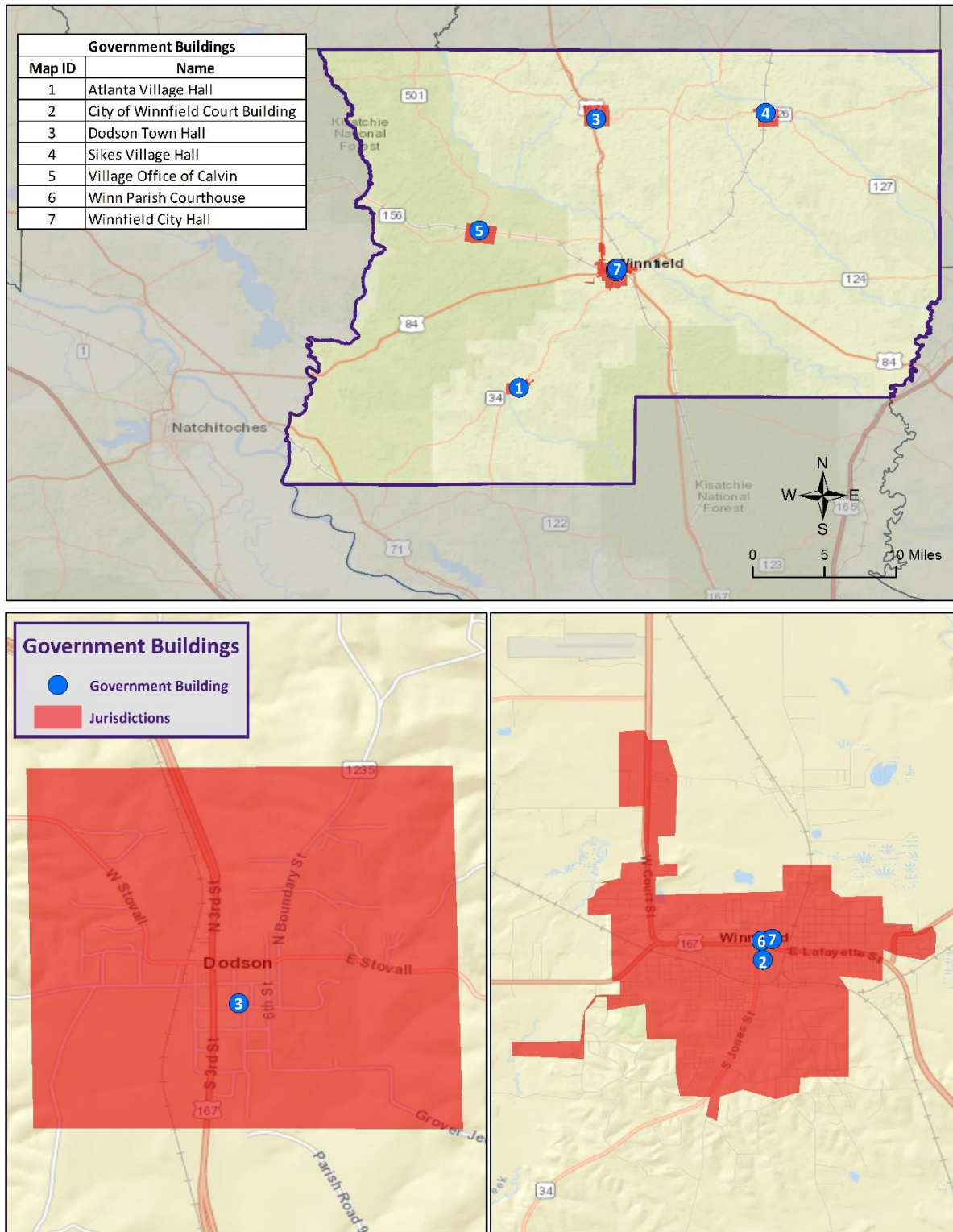


Figure 2-2: Government Buildings in Winn Parish.



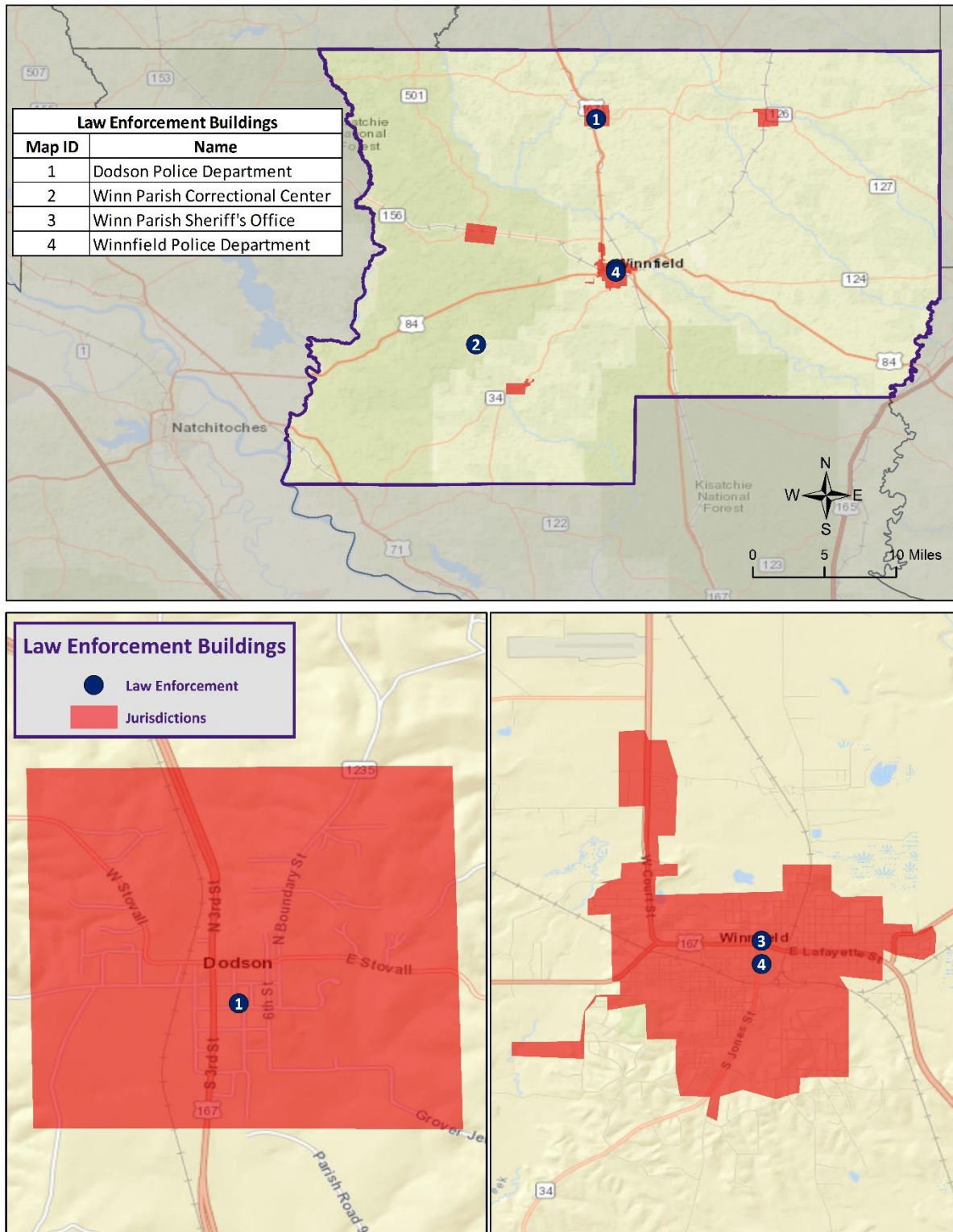


Figure 2-3: Law Enforcement in Winn Parish.

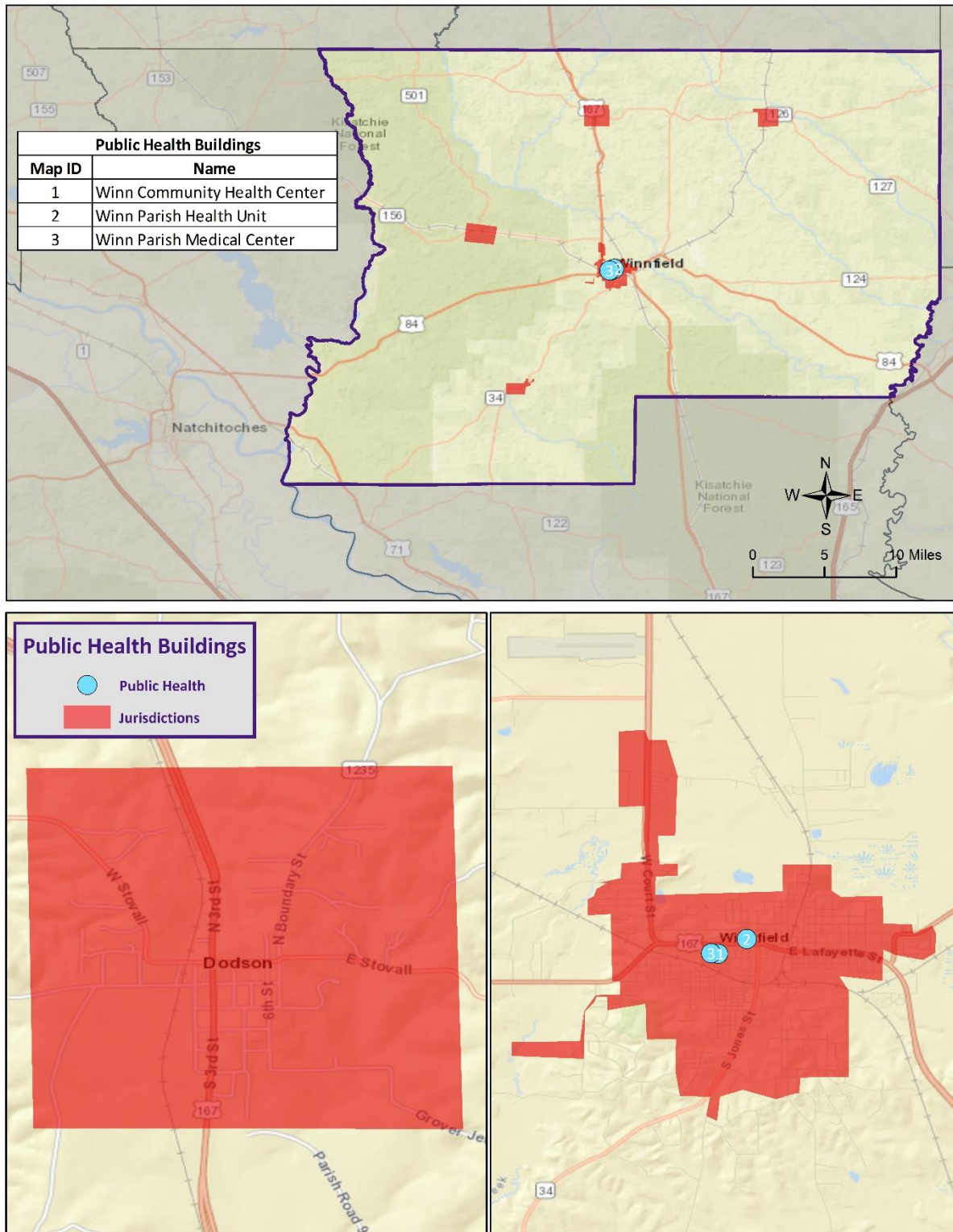


Figure 2-4: Public Health Facilities in Winn Parish.



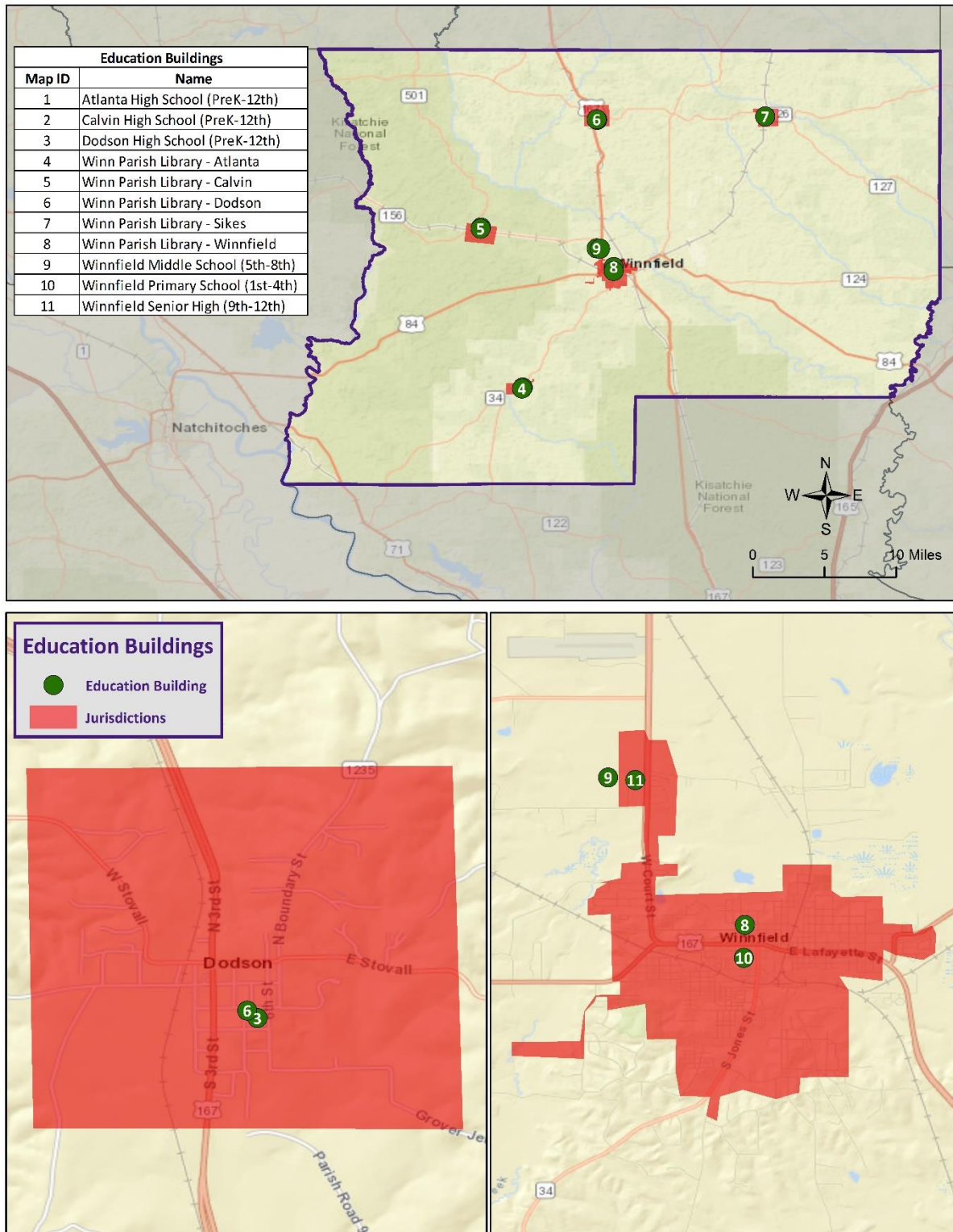


Figure 2-5: Educational Facilities in Winn Parish.

### 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 Winn 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 Winn 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 Winn 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 Winn Parish.*

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Drought	3	2	4	2	3	2.8
Flooding	3	4	3	4	3	3.4
Sinkholes	1	2	1	4	2	1.85
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	3	3	2	4	3	2.95
Tropical Cyclones	3	4	4	1	4	3.3
Wildfires	1	3	4	1	2	2.25
Winter Weather	3	2	4	1	2	2.5

### Future Development Trends

Winn Parish experienced a decline in population and housing between the years of 2000 and 2020, decreasing in population from 16,816 with 7,502 housing units in the year 2000 to a population of 13,755 with 6,351 housing units in the year 2020. Winnfield experienced the largest population decline within the parish falling from a populace of 5,660 in 2010 to 4,153 in 2020 (14% overall decline). This is followed by the incorporated area of Dodson with a 12.5% overall decline, the incorporated area of Atlanta with an 8.6% overall decline, the unincorporated area of the parish with an 8.3% overall decline, and the incorporated area of Sikes with a 5.9% overall decline. The incorporated area of Calvin is the only area in the parish with an increase in population at a 2.1% overall increase.

Atlanta experienced the largest decline in housing units from 2010 to 2020 falling from 88 in 2010 to 68 in 2020. This is followed by Dodson with a 18.5% overall decline, the unincorporated area of the parish with a 12.7% overall decline, Sikes with a 11.8% overall decline, Calvin with a 10.9% overall decline, and Winnfield with a 10.4% overall decline. The future population and number of buildings can be estimated using U.S. Census Bureau housing and population data. The tables on the next page show population and housing unit estimates from 2000 to 2020:

*Table 2-8: Population Growth Rate for Winn Parish.*

Total Population	Winn Parish	Unincorporated Area	Atlanta	Calvin	Dodson	Sikes	Winnfield
1-Apr-00	16,816	10,230	194	233	357	142	5,660
1-Apr-10	15,287	9,601	163	237	336	119	4,831
1-Apr-20	13,755	8,805	149	242	294	112	4,153
Population Growth between 2000 – 2010	-9.1%	-6.1%	-16.0%	1.7%	-5.9%	-16.2%	-14.6%
Average Annual Growth Rate between 2000 – 2010	-0.9%	-0.6%	-1.6%	0.2%	-0.6%	-1.6%	-1.5%
Population Growth between 2010 – 2020	-10.0%	-8.3%	-8.6%	2.1%	-12.5%	-5.9%	-14.0%
Average Annual Growth Rate between 2010 – 2020	-1.00%	-0.83%	-0.86%	0.21%	-1.25%	-0.59%	-1.40%

*Table 2-9: Housing Growth Rate for Winn Parish.*

Total Population	Winn Parish	Unincorporated Area	Atlanta	Calvin	Dodson	Sikes	Winnfield
1-Apr-00	7,502	4,526	80	111	167	64	2,554
1-Apr-10	7,234	4,458	88	119	173	68	2,328
1-Apr-20	6,351	3,891	68	106	141	60	2,085
Housing Growth between 2000 – 2010	-3.6%	-1.5%	10.0%	7.2%	3.6%	6.3%	-8.8%
Average Annual Growth Rate between 2000 – 2010	-0.4%	-0.2%	1.0%	0.7%	0.4%	0.6%	-0.9%
Housing Growth between 2010 – 2020	-12.2%	-12.7%	-22.7%	-10.9%	-18.5%	-11.8%	-10.4%
Average Annual Growth Rate between 2010 – 2020	-1.2%	-1.3%	-2.3%	-1.1%	-1.8%	-1.2%	-1.0%

### 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 floods and tropical cyclones. Based on a review of available information, it is assumed that the population and housing units will grow within Winn Parish from the present until 2030. A summary of estimated future impacts is shown in the table on the next page. Dollar values are expressed in future costs and assume an annual rate of inflation of 1.02%.

*Table 2-10: Estimated Future Impacts, 2020 - 2030.**(Source: Hazus, US Census Bureau)*

Hazard / Impact	Total in Parish (2020)	Hazard Area (2020)	Hazard Area (2025)	Hazard Area (2030)
<b>Flood Damage</b>				
<b>Structures</b>	11,982	1,415	1,487	1,547
<b>Value of Structures</b>	\$3,877,958,740	\$457,868,163	\$506,272,265	\$548,654,680
<b># of People</b>	25,655	3,029	3,044	3,056
<b>Tropical Cyclone Damage</b>				
<b>Structures</b>	11,982	11,982	12,593	13,104
<b>Value of Structures</b>	\$3,877,958,740	\$3,877,958,740	\$4,287,921,972	\$4,646,883,939
<b># of People</b>	25,655	25,655	25,783	25,886

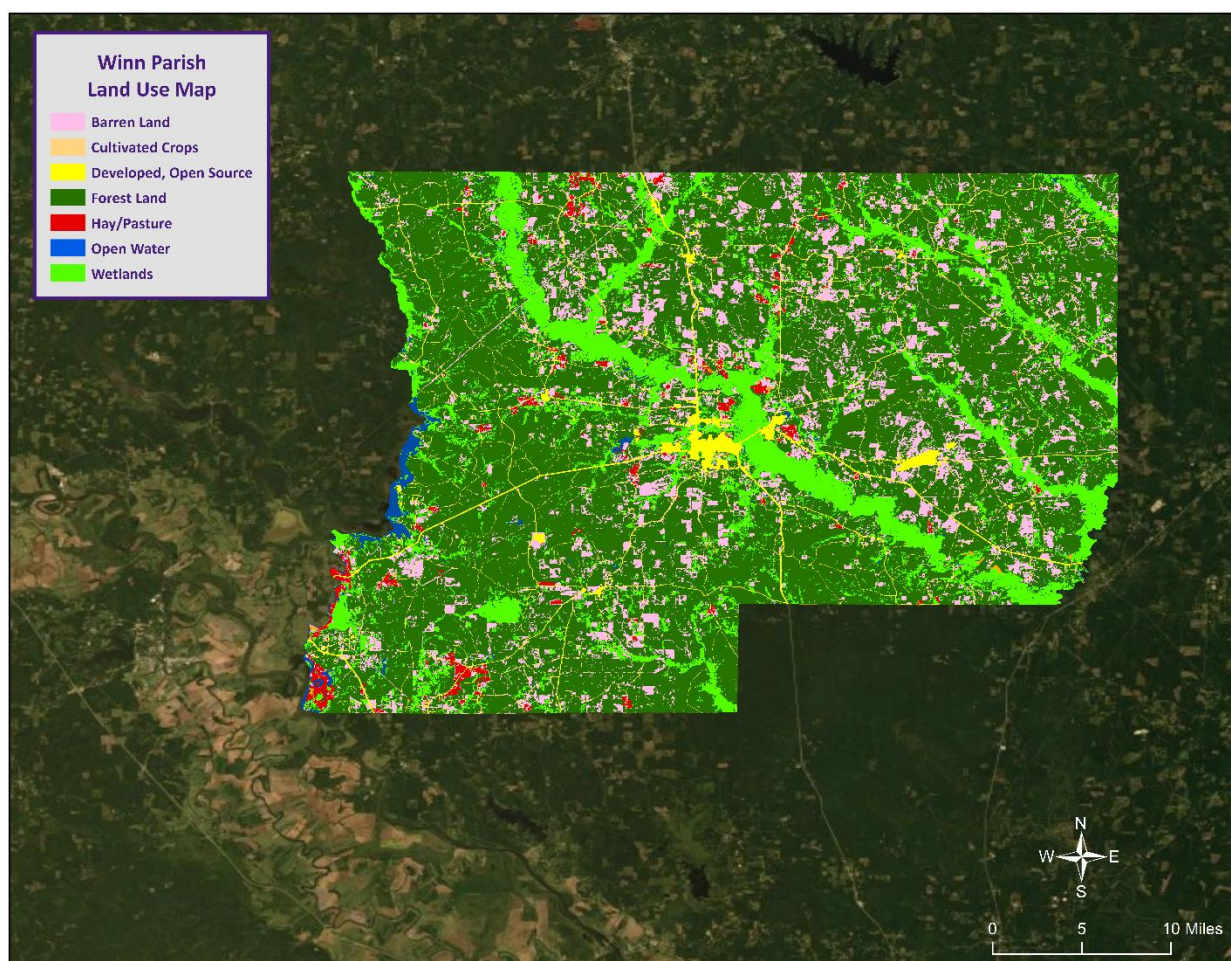
Both population and housing numbers have declined throughout the parish since the last update to the Winn Parish Hazard Mitigation Plan. With that in mind, Winn Parish is mindful in offsetting any new development around the parish with appropriate mitigative actions. Initiatives such as active floodplain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

### Land Use

The Winn Parish Land Use table is provided below. Residential, commercial, and industrial areas account for only 4% of the parish's land use. Forest land at 399,214 acres is the largest category accounting for 65% of land in the parish. The parish also consists of wetlands (16%), agricultural land (15%), and water areas (1%).

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

Land Use	Acres	Percentage
<b>Agricultural Land, Cropland, and Pasture</b>	88,948	15%
<b>Wetlands</b>	95,771	16%
<b>Forest Land (Not including forested wetlands)</b>	399,214	65%
<b>Urban/Development</b>	22,977	4%
<b>Water</b>	5,962	1%



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

## Hazard Identification

### Drought

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

Drought is a unique and insidious hazard. Unlike other natural hazards, no specific threshold of "dryness" exists for declaring a drought. In addition, the definition of drought depends on stakeholder needs. For instance, the onset (and demise) of agricultural drought is quick, as crops need water every few days; once they get rainfall, they improve. But hydrologic drought sets in (and is alleviated) only over longer time periods. A few dry days will not drain a reservoir, but a few rain showers cannot replenish it either. Moreover, different geographical regions define drought differently based on the deviation from local, normal precipitation. And drought can occur anywhere, triggered by changes in the local-to-regional-scale atmospheric circulation over an area, or by broader-scale circulation variations such as the expansion of semi-permanent oceanic high-pressure systems or the stalling of an upper-level atmospheric ridge in



place over a region. The severity of a drought depends upon the degree and duration of moisture deficiency, as well as the size of the affected area. Periods of drought also tend to be associated with other hazards, such as wildfires and/or heat waves. Lastly, drought is a slow onset event, causing less direct—but tremendous indirect—damage. Depletion of aquifers, crop loss, and livestock and wildlife mortality rates are examples of direct impacts. Since the groundwater found in aquifers is the source of about 38% of all county and city water supplied to households (and comprises 97% of the water for all rural populations that are not already supplied by cities and counties), droughts can potentially have direct, disastrous effects on human populations. The indirect consequences of drought, such as unemployment, reduced tax revenues, increased food prices, reduced outdoor recreation opportunities, higher energy costs as water levels in reservoirs decrease and consumption increases, and water rationing, are not often fully known. This complex web of impacts causes drought to affect people and economies well beyond the area physically experiencing the drought.

This hazard is often measured using the Palmer Drought Severity Index (PDSI, also known operationally as the Palmer Drought Index). The PDSI, first developed by Wayne Palmer in a 1965 paper for the U.S. Weather Bureau, measures drought through recent precipitation and temperature data with regard to a basic supply-and-demand model of soil moisture. It is most effective in long-term calculations. Three other indices used to measure drought are the Palmer Hydrologic Drought Index (PHDI), the Crop Moisture Index (CMI), which is derived from the PDSI, and the Keetch-Byram Drought Index (KBDI), created by John Keetch and George Byram in 1968 for the U.S. Forest Service. The KBDI is used mainly for predicting the likelihood of wildfire outbreaks. As a compromise, the PDSI is used most often for droughts since it is a medium-response drought indicator. The objective of the PDSI is to provide measurements of moisture conditions that are standardized so that comparisons using the index can be made between locations and between months. [Table 2-12](#) displays the range and Palmer classifications of the PDSI index while [Figure 2-7](#) displays the current drought monitor for the state of Louisiana and its parishes.

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

Range	Palmer Classifications
4.0 or more	Extremely Wet
3.0 to 3.9	Very Wet
2.0 to 2.9	Moderately Wet
1.0 to 1.99	Slightly Wet
0.5 to 0.99	Incipient Wet Spell
0.49 to -0.49	Near Normal
-0.5 to -0.99	Incipient Dry Spell
-1.0 to -1.99	Mild Drought
-2.0 to -2.99	Moderate Drought
-3.0 to -3.99	Severe Drought
-4.0 or less	Extreme Drought

The PDSI best measures the duration and intensity of drought-inducing circulation patterns at a somewhat long-term time scale, although not as long-term as the PHDI. Long-term drought is cumulative, so the intensity of drought during the current month is dependent on the current weather patterns in addition to the effects of cumulative patterns of previous months. Although weather patterns can change almost overnight from a long-term drought pattern to a long-term wet pattern, as a medium-response indicator,

the PDSI responds relatively rapidly. Data compiled by the National Drought Mitigation Center indicates moderate drought conditions throughout the parish.

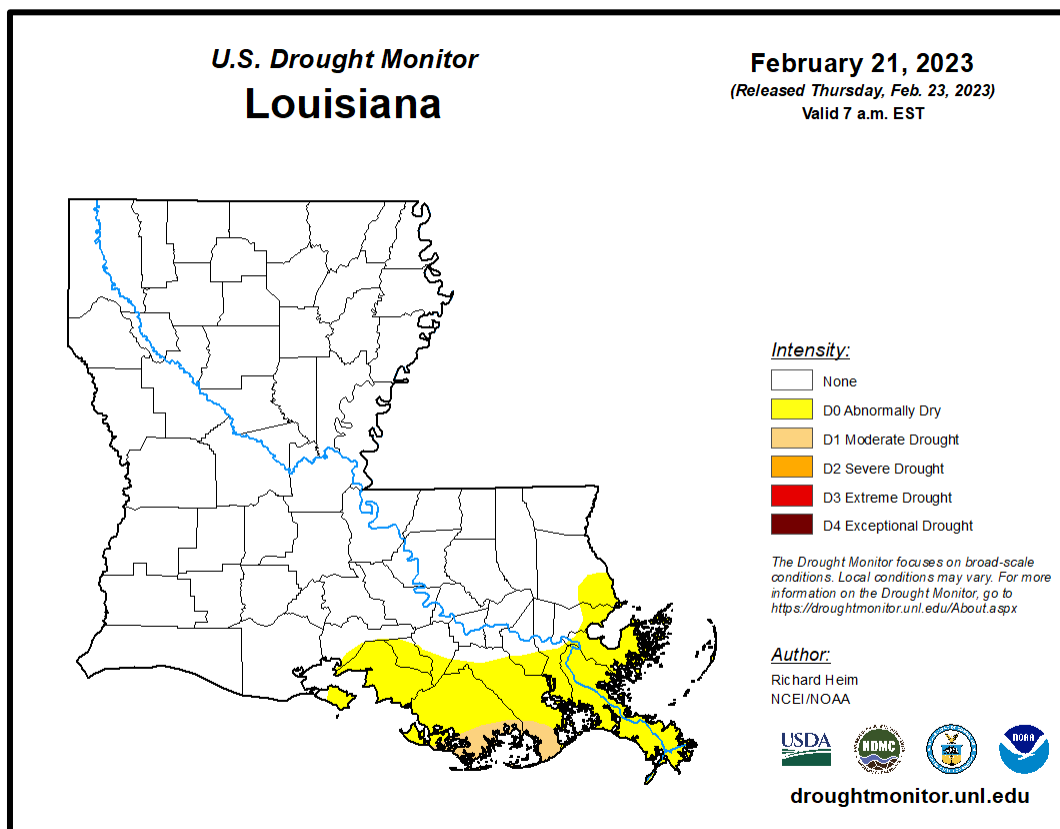


Figure 2-7: United States Drought Monitor for the State of Louisiana and its Parishes.  
(Source: The National Drought Mitigation Center)

#### Location

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

#### Previous Occurrences / Extent

Historically, there have been nine drought incidents in Winn Parish. Drought events have ranged from Mild to Extreme per the National Climatic Data Center. Since the last update in 2016, there has been one drought event within the boundaries of Winn Parish, which is detailed on the next page.



*Table 2-13: Historical Droughts in Winn Parish since the 2016 Update.*

Date	Impacts	Crop Damage	Magnitude
December 2017 – February 2018	Severe (D2) drought conditions encompassed much of Northcentral Louisiana to start the second week of December. Including the first half of December, the total rainfall amounts that fell during the Fall months (September/October/November) only ranged from 2-4 inches areawide, which was only 15-25% of normal whereas temperatures during the period remained above normal as well. Widespread wetting rains fell between December 16th-22nd across the area ahead of a couple of cold frontal passages, with amounts ranging from 2-3 inches. While this rainfall was beneficial, it was unable to alleviate the longer-term rainfall deficits across the region since September, and thus, severe drought conditions remained in place to end the month.	\$0	D2

#### 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 29% for Winn Parish.

#### Estimated Potential Loses

According to the NCEI Storm Events Database, there have been nine drought events that have impacted Winn Parish which resulted in \$15,000,000 in damage to crops in the parish. When examining the drought hazard, the main impact will primarily be on the crops. The following table presents an analysis of agricultural exposure which are susceptible to droughts by type for Winn Parish.

*Table 2-14: Agricultural Exposure by Crop Type for Droughts in Winn Parish.  
(Source: LSU AG Center 2021 Parish Totals)*

Agricultural Exposure by Type for Drought			
Blueberries	Forestry	Soybeans	Tomatoes
\$3,498,432	\$12,974,232	\$458,912	\$13,211,233

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

#### Vulnerability

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

## Flooding

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

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

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

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

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

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

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

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

- **Urban flooding** is similar to flash flooding but is specific to urbanized areas. It takes place when storm water drainage systems cannot keep pace with heavy precipitation, and water accumulates on the surface. Most urban flooding is caused by slow-moving thunderstorms or torrential rainfall.
- **Coastal flooding** can appear similar to any of the other flood types, depending on its cause. It occurs when normally dry coastal land is flooded by seawater but may be caused by direct inundation (when the sea level exceeds the elevation of the land), overtopping of a natural or artificial barrier, or the breaching of a natural or artificial barrier (i.e., when the barrier is broken down by the sea water). Coastal flooding is typically caused by storm surge, tsunamis, or gradual sea level rise.

Historically, in Winn 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 stormwater from heavy precipitation related to thunderstorms.

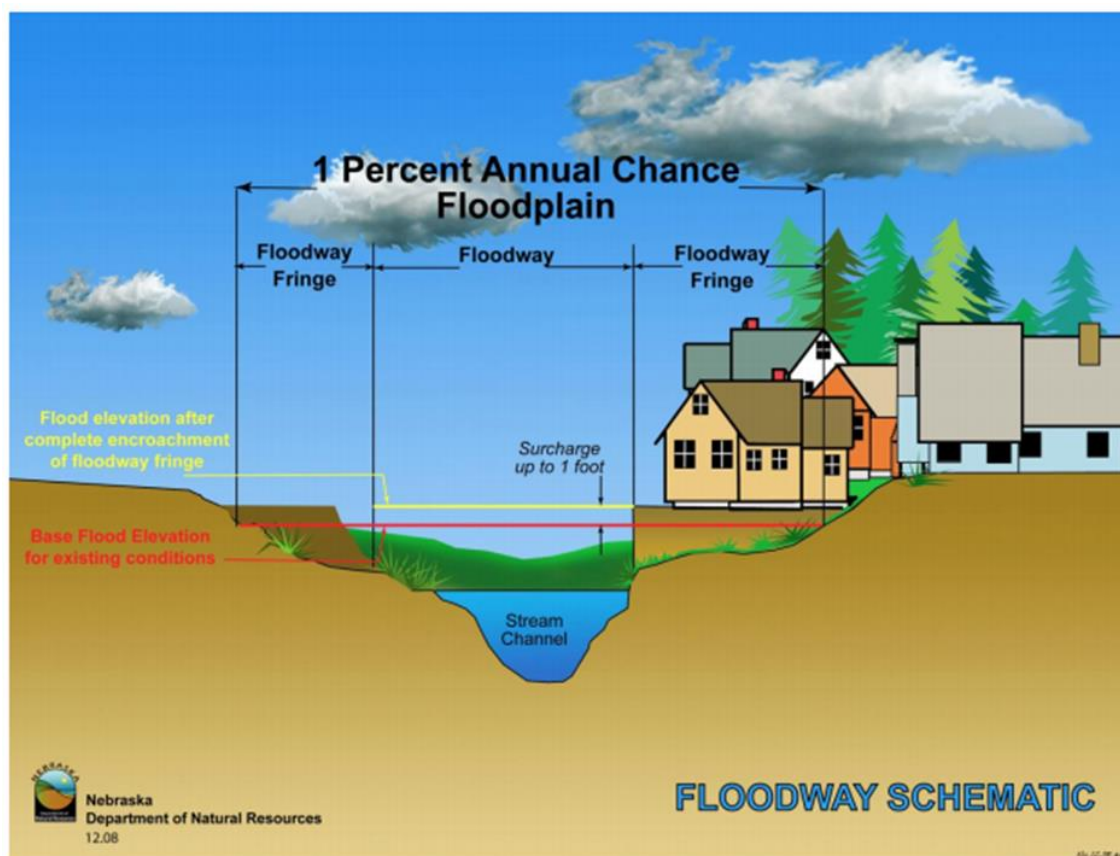
Based on stream gauge levels and precipitation forecasts, the National Weather Service (NWS) posts flood statements, watches, and warnings. The NWS issues the following weather statements with regard to flooding:

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

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

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

The 100-year flood event is of particular significance since it is the regulatory standard that determines the obligation (or lack thereof) to purchase flood insurance. Flood insurance premiums are set depending on the flood zone, as modeled by National Flood Insurance Program (NFIP) Rate Maps. The NFIP and FEMA suggest insurance rates based on Special Flood Hazard Areas (SFHAs), as diagrammed in [Figure 2-8](#).



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

*(Source: Nebraska Department of Natural Resources)*

A SFHA is the land area covered by the floodwaters of the base flood (red line in [Figure 2-8](#)), where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

#### Property Damage

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

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

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

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

#### Repetitive Loss Properties

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

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

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

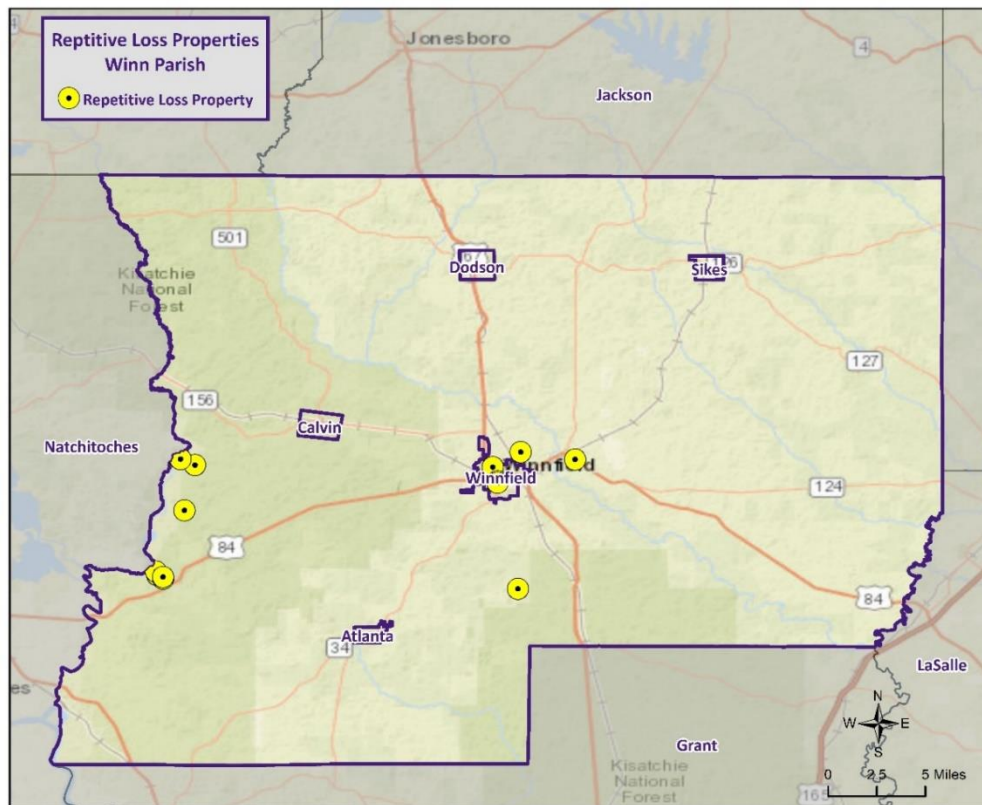
- a. It is covered under a contract for flood insurance made available under the NFIP; and
- b. It has incurred flood related damage –
  - 1) For which four or more separate claims payments have been made under flood insurance coverage with the amount of each claim exceeding \$5,000 and with the cumulative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

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

*Table 2-15: Repetitive Loss Structures for Winn Parish.*

Jurisdiction	Number of Structures	Residential	Commercial	Government	Total Claims	Total Claims Paid	Average Claim Paid
<b>Winn Parish (Unincorporated)</b>	15	15	0	0	39	\$1,306,227	\$33,493
<b>Atlanta</b>	0	0	0	0	0	\$0	\$0
<b>Calvin</b>	0	0	0	0	0	\$0	\$0
<b>Dodson</b>	0	0	0	0	0	\$0	\$0
<b>Sikes</b>	0	0	0	0	0	\$0	\$0
<b>Winnfield</b>	2	2	0	0	2	\$35,642	\$17,821
<b>Total</b>	<b>17</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>\$1,341,869</b>	<b>\$32,729</b>

All 17 repetitive loss structures were geocoded in order to provide an overview of where the repetitive loss structures are located throughout the parish. [Figure 2-9](#) shows the approximate location of the structures, while [Figure 2-10](#) shows where the highest concentration of repetitive loss structures is located. Through the repetitive loss map, it is clear the primary concentrated area of repetitive loss structures is focused in and around the incorporated area of Winnfield and the western portion of the unincorporated area of the parish.



*Figure 2-9: Repetitive Loss Properties in Winn Parish.*



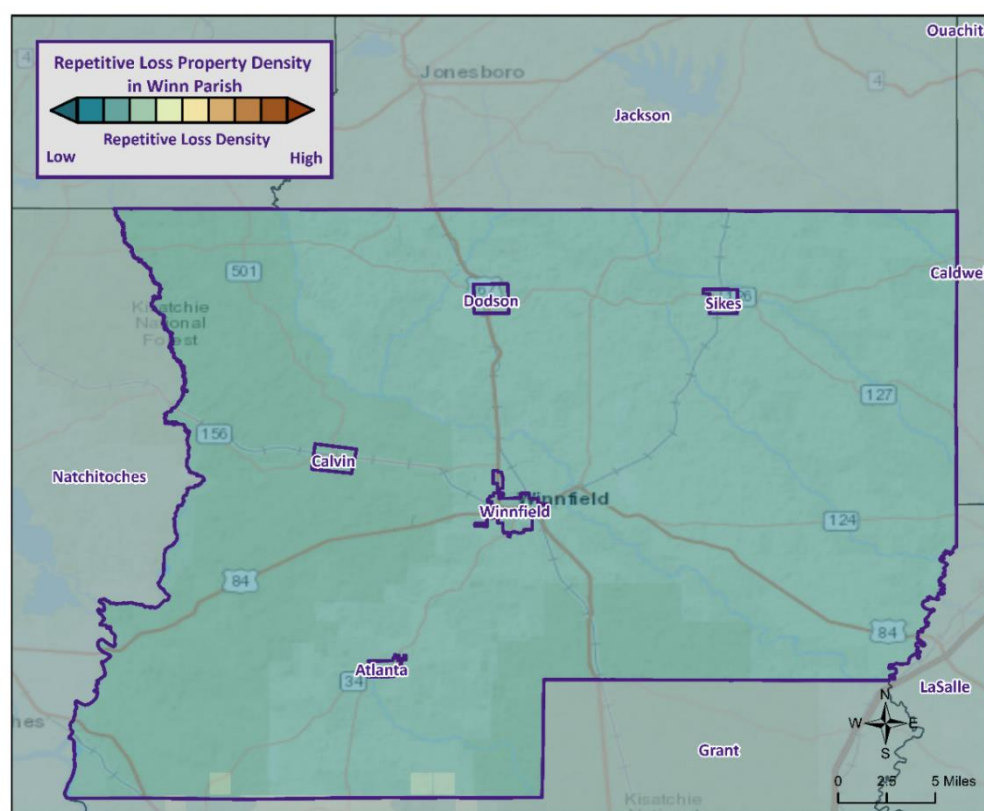


Figure 2-10: Repetitive Loss Property Densities in Winn Parish.

#### National Flood Insurance Program

Flood insurance statistics indicate that Winn Parish has 48 flood insurance policies with the NFIP, with total annual premiums of \$29,342. Winn Parish and the jurisdictions of Calvin and Winnfield are all participants in the NFIP. The incorporated areas of Atlanta, Dodson, and Sikes do not participate in the NFIP. These particular jurisdictions are very limited when it comes to personnel, funding, and resources needed to administer the NFIP program. The jurisdictions have determined that participation in the NFIP has little or no benefit or impact on the residents and the economies of the jurisdiction. Winn Parish and all of its jurisdictions will continue to adopt and enforce floodplain management requirements, including regulating new construction Special Flood Hazard Areas, and will continue to monitor activities including local requests for new map updates. Flood insurance statistics and additional NFIP participation details for Winn Parish and its jurisdictions are provided in the tables to follow.

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

Location	No. of Insured Structures	Total Insurance Coverage Value	Annual Premiums Paid	No. of Insurance Claims Filed Since 1978	Total Loss Payments
<b>Winn Parish</b>	40	\$7,161,800	\$24,153	108	\$1,834,426
<b>Atlanta</b>	0	\$0	\$0	0	\$0
<b>Calvin</b>	0	\$0	\$0	3	\$55,874
<b>Dodson</b>	0	\$0	\$0	0	\$0
<b>Sikes</b>	0	\$0	\$0	0	\$0
<b>Winnfield</b>	8	\$2,178,100	\$5,189	31	\$435,938
<b>Total</b>	<b>48</b>	<b>\$9,339,900</b>	<b>\$29,342</b>	<b>142</b>	<b>\$2,326,238</b>



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

CID	Community Name	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Date Joined the NFIP	Tribal
220266A	Calvin	8/29/1975	7/1/1987	8/19/2020	7/1/1987	No
220369A	Winn Parish	6/5/1985	7/24/1989	8/19/2020	7/24/1989	No
220247A	Winnfield	11/16/1973	7/1/1987	8/19/2020	7/1/1987	No

According to the Community Rating System (CRS) list of eligible communities dated October 1, 2022, neither Winn Parish nor the incorporated jurisdictions of Atlanta, Calvin, Dodson, Sikes, and Winnfield 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 Winn Parish

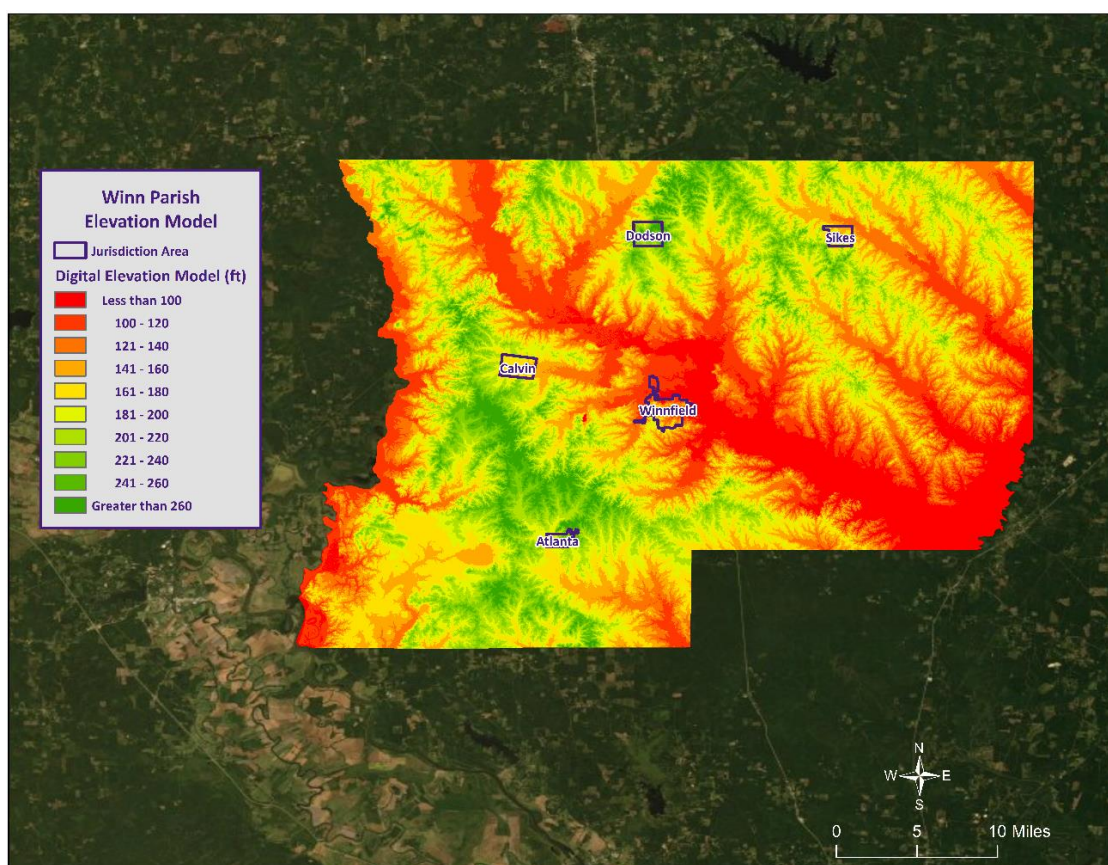
By definition, flooding is caused when an area receives more water than the drainage system can convey. The following is a synopsis of the types of flooding that Winn Parish experiences.

**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 2-11: Elevation throughout Winn Parish.*

The digital elevation model (DEM) for Winn 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 100 feet (NAVD88) to over 260 feet (NAVD88). The highest elevations in the parish are approximately 260 feet (NAVD88), located sporadically throughout the parish. The incorporated areas range in elevation from 128 to 259 feet (NAVD88), with Winnfield averaging 128 feet (NAVD88), Calvin and Sikes averaging 171 feet (NAVD88), Atlanta averaging 230 feet (NAVD88), and Dodson averaging 259 feet (NAVD88).

#### *Location*

Winn Parish has experienced significant flooding in its history and can expect more in the future. The Red River forms the boundary of the parish for a few miles in the southwest corner. Saline Bayou and Saline Lake form the remainder of the western border of the parish. The Dugemona River flows through the parish diagonally from the northwest to the southwest corner, dividing the parish into equal parts and feeding into numerous smaller bayous and drainage canals. Generally, these water and drainage bodies form and follow the 100-year floodplain, and generally drain the parish from north to south. While some jurisdictions within Winn Parish might not have SFHAs within their boundaries, recent events throughout the state have demonstrated that even areas outside of SFHAs can be susceptible to flooding. For example, the jurisdiction of Dodson does not have any flood hazard areas within its boundaries; however, localized street flooding can be expected in the area west of 1st Street and east of Blankenship Street, resulting in area streets becoming impassible by many vehicles.

Based on previous flood events, the worst-case scenarios are based on several different types of flooding events. Stormwater excesses and riverine flooding primarily affect the low-lying areas of the parish, and

flood depths of up to eight feet can be expected in the unincorporated areas of the parish. The incorporated areas of Atlanta, Winnfield, and Calvin can expect flood depths of four to six feet, while the incorporated areas of Sikes and Dodson can expect flood levels of approximately two to four feet.

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

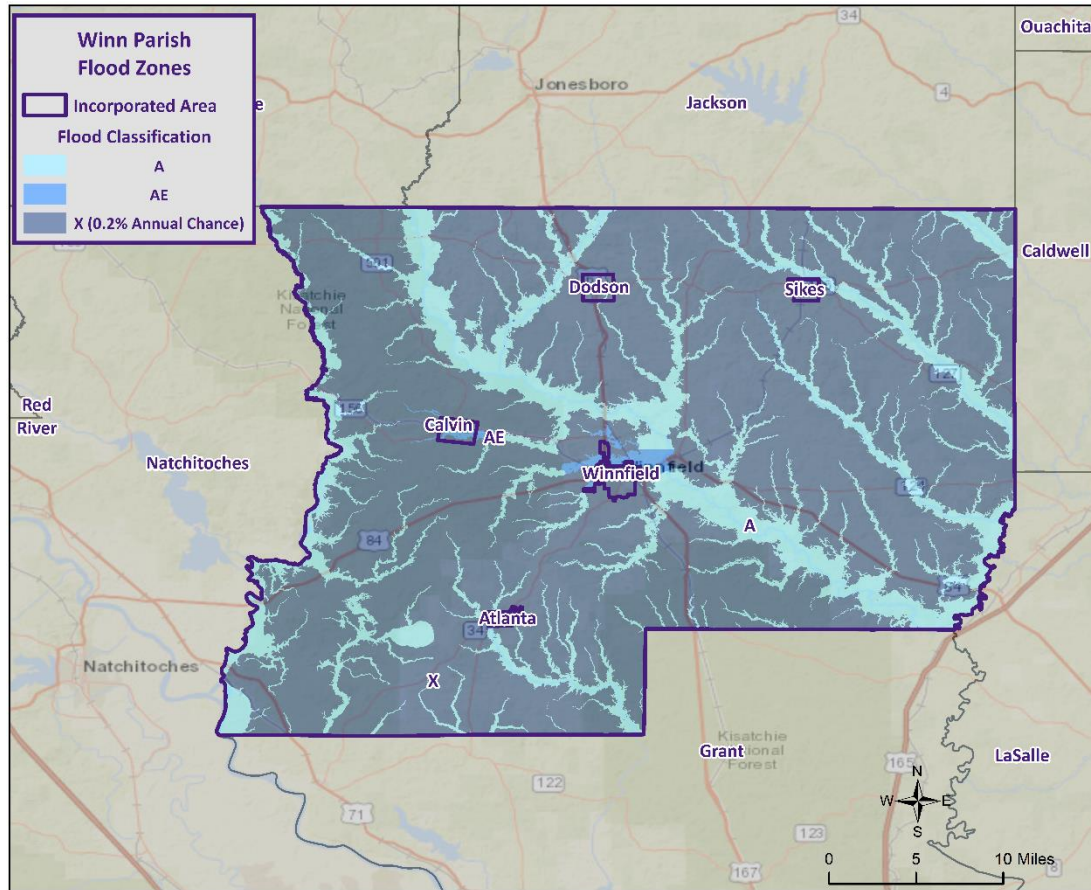


Figure 2-12: Winn Parish Areas within the Flood Zones.



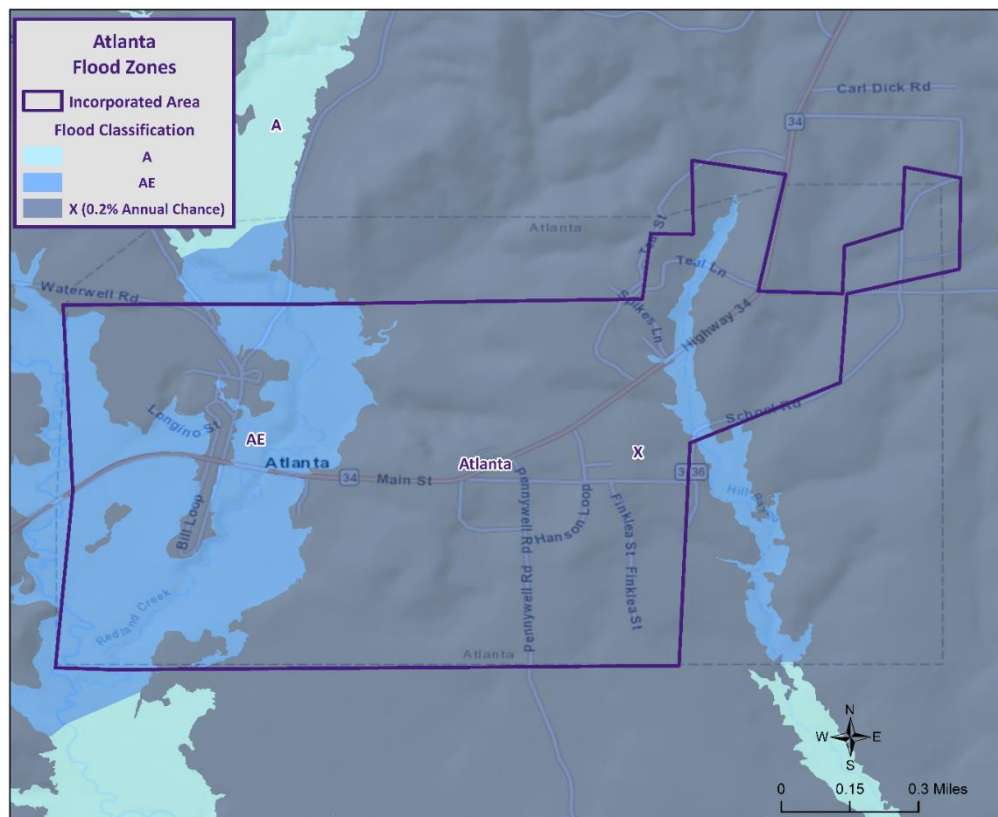


Figure 2-13: Atlanta Areas within the Flood Zones.

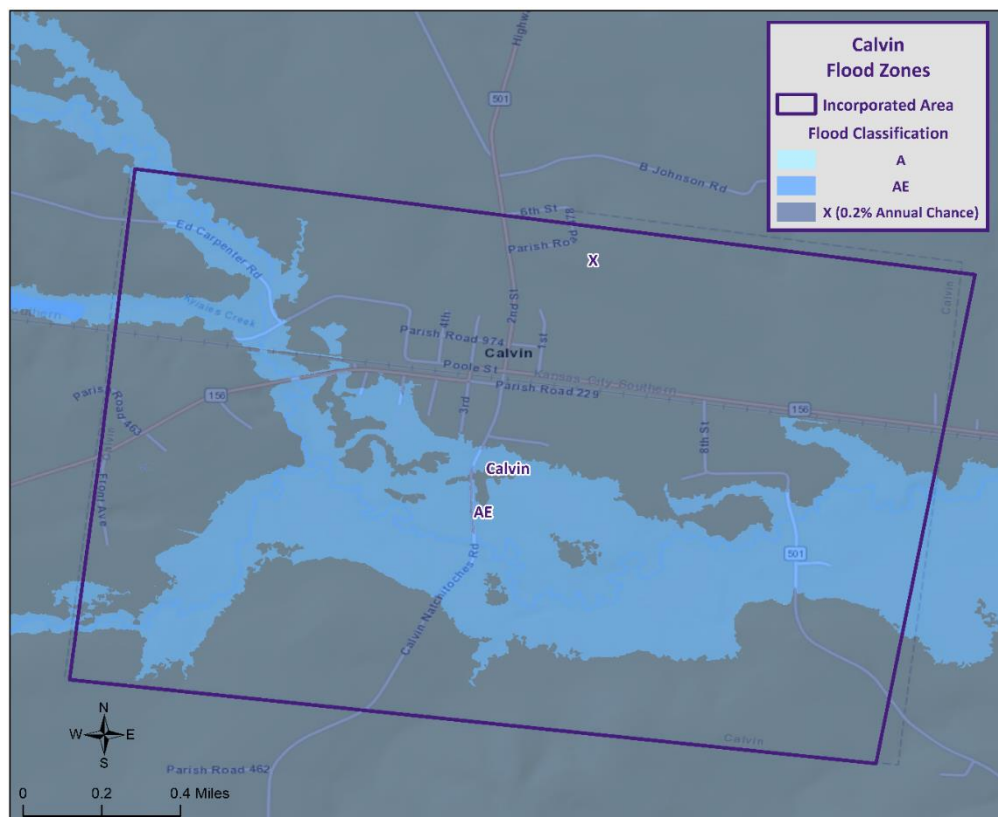


Figure 2-14: Calvin Areas within the Flood Zones.

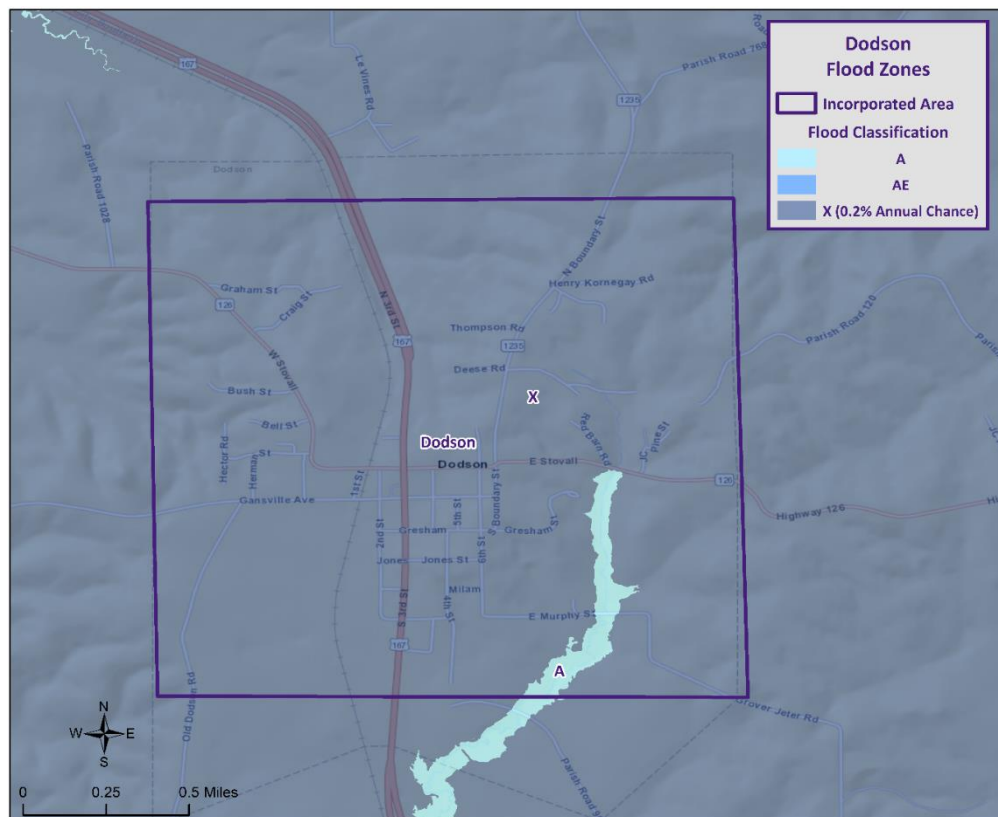


Figure 2-15: Dodson Areas within the Flood Zones.

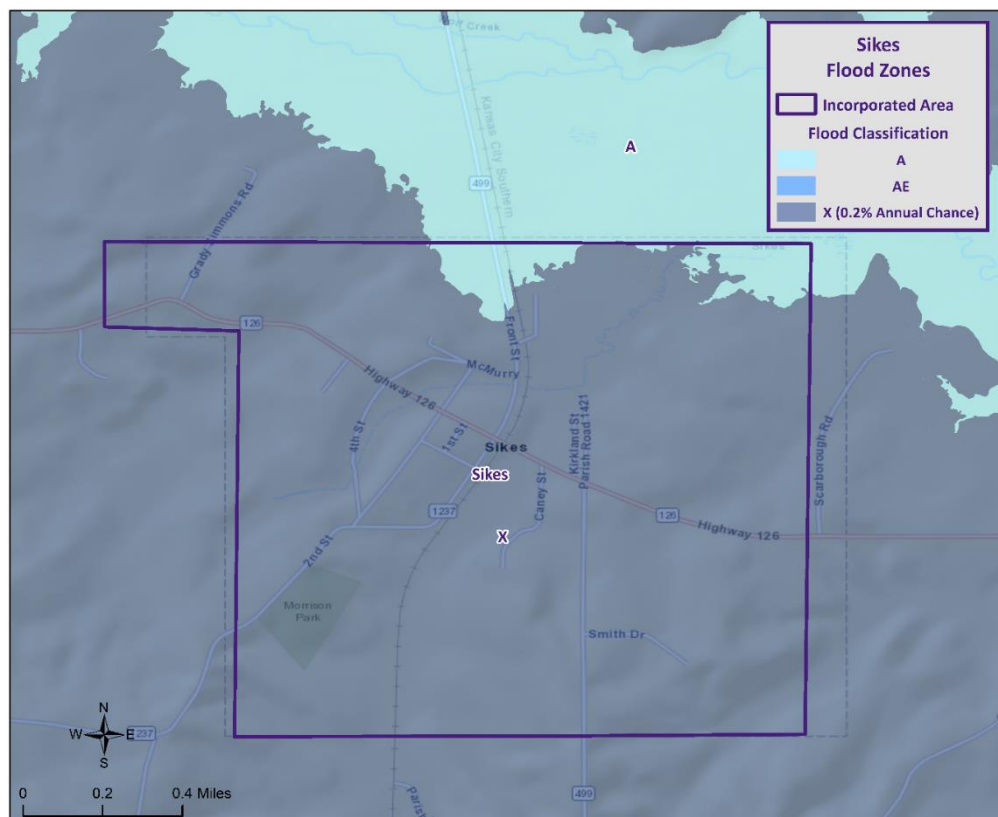


Figure 2-16: Sikes Areas within the Flood Zones.



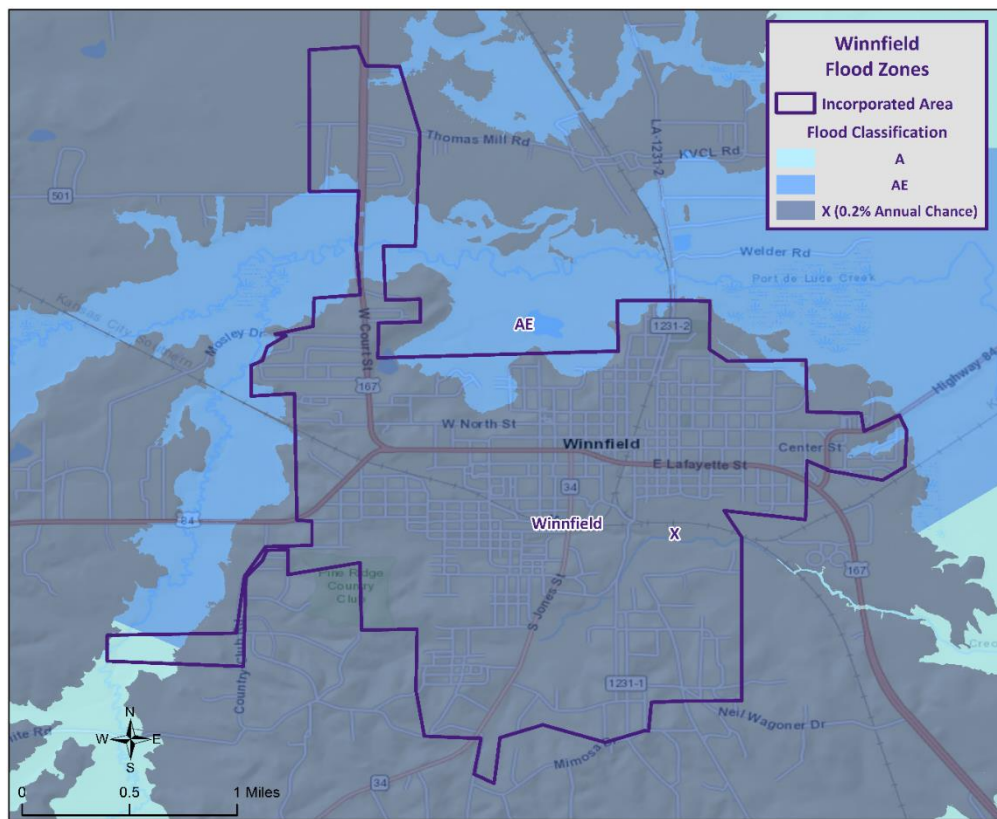


Figure 2-17: Winnfield Areas within the Flood Zones.

#### Previous Occurrences / Extents

Historically, there have been 40 flooding events that have caused significant flooding in Winn Parish and its jurisdictions between 1990 and 2021. Below is a brief synopsis of the flooding events which occurred since the last Winn Parish HMP Update in 2016.

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

Date	Extents	Type of Flooding	Estimated Damages	Location
August 10, 2017	Flooding occurred on both the north and south bound lanes of Highway 167 south of Winnfield. A few secondary roads near Winnfield were also flooded.	Flash Flood	\$0	WINNFIELD JOYCE ARPT
August 10, 2017	Vehicles were stalled in high water along Highway 84 in Winnfield. Multiple streets in the city were also covered in high water.	Flash Flood	\$0	WINNFIELD JOYCE ARPT
August 10, 2017	Highway 84 northeast of Winnfield was covered in high water.	Flash Flood	\$0	JOYCE
August 30, 2017	Highway 156 between Calvin and Winnfield was closed due to flooding.	Flash Flood	\$0	CALVIN
August 31, 2017	Highway 1232 between Highway 156 and Highway 501 was closed due to flooding.	Flash Flood	\$0	TANNEHILL
August 31, 2017	Highway 156 between Highway 501 and Highway 167 was closed due to flooding.	Flash Flood	\$0	CALVIN

Date	Extents	Type of Flooding	Estimated Damages	Location
August 31, 2017	Portions of LA 126 between LA 1233 and LA 501 was closed due to a washout.	Flash Flood	\$0	MILL
August 31, 2017	Highway 1232 from Highway 156 to Highway 501 was closed due to high water.	Flash Flood	\$0	CALVIN
February 21, 2018	High water covered Highway 472 at Big Creek in Southern Winn Parish.	Flash Flood	\$0	JORDON HILL
April 22, 2020	Highway 167 was flooded near the David G. Joyce Airport on the north side of Winnfield.	Flash Flood	\$0	WINNFIELD JOYCE ARPT
October 10, 2020	Highway 501 between Winnfield and Calvin was flooded.	Flash Flood	\$0	CALVIN
October 10, 2020	Highway 1228 between Winnfield and Atlanta was flooded.	Flash Flood	\$0	WINNFIELD

#### *Frequency / Probability*

The NCEI Storm Events Database identified 40 flooding events within the Winn Parish planning area since 1990. The table below shows the probability and return frequency for each jurisdiction.

*Table 2-19: Annual Flood Probabilities for Winn Parish.*

Jurisdiction	Annual Probability	Return Frequency
<b>Winn Parish (Unincorporated)</b>	48%	1 event every 2 to 3 years
<b>Atlanta</b>	16%	1 event every 6 to 7 years
<b>Calvin</b>	23%	1 event every 4 to 5 years
<b>Dodson</b>	6%	1 event every 15 to 16 years
<b>Sikes</b>	6%	1 event every 15 to 16 years
<b>Winnfield</b>	29%	1 event every 3 to 4 years

Based on the historical records, the overall flooding probability for the entire Winn Parish Planning area is 100%, with 40 events occurring over a 31-year period.

#### *Estimated Potential Losses*

Using the Hazus Flood Model, the 100-year flood scenario, along with the Parish DFIRM, was analyzed to determine losses from this worst-case scenario. On the next page, [Table 2-20](#) shows the total economic losses that would result from this occurrence.

*Table 2-20: Estimated Losses in Winn Parish from a 100-year Flood Event.**(Source: Hazus)*

Jurisdiction	Estimated Total Losses from 100-Year Flood Event
<b>Winn Parish (Unincorporated Area)</b>	\$21,267,000
<b>Atlanta</b>	\$1,245,000
<b>Calvin</b>	\$706,000
<b>Dodson</b>	\$5,000
<b>Sikes</b>	\$7,000
<b>Winnfield</b>	\$1,335,000
<b>Total</b>	<b>\$24,565,000</b>

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

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

Unincorporated Winn Parish	Estimated Total Losses from 100-Year Flood Event
<b>Agricultural</b>	\$908,000
<b>Commercial</b>	\$1,741,000
<b>Government</b>	\$42,000
<b>Industrial</b>	\$640,000
<b>Religious / Non-Profit</b>	\$932,000
<b>Residential</b>	\$17,000,000
<b>Schools</b>	\$4,000
<b>Total</b>	<b>\$21,267,000</b>

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

Atlanta	Estimated Total Losses from 100-Year Flood Event
<b>Agricultural</b>	\$0
<b>Commercial</b>	\$0
<b>Government</b>	\$5,000
<b>Industrial</b>	\$0
<b>Religious / Non-Profit</b>	\$113,000
<b>Residential</b>	\$1,127,000
<b>Schools</b>	\$0
<b>Total</b>	<b>\$1,245,000</b>

Table 2-23: Estimated 100-year Flood Losses for Calvin by Sector.

(Source: Hazus)

Calvin	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$706,000
Schools	\$0
<b>Total</b>	<b>\$706,000</b>

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

(Source: Hazus)

Dodson	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$5,000
Schools	\$0
<b>Total</b>	<b>\$5,000</b>

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

(Source: Hazus)

Sikes	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$7,000
Schools	\$0
<b>Total</b>	<b>\$7,000</b>

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

(Source: Hazus)

Winnfield	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$105,000
Government	\$0
Industrial	\$12,000
Religious / Non-Profit	\$232,000
Residential	\$986,000
Schools	\$0
<b>Total</b>	<b>\$1,335,000</b>

*Threat to People*

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

Table 2-27: 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
Winn Parish (Unincorporated)	8,805	3,612	41.0%
Atlanta	149	88	169.3%
Calvin	242	90	37.2%
Dodson	294	11	3.7%
Sikes	112	12	10.7%
Winnfield	4,153	373	9.0%
<b>Total</b>	<b>13,755</b>	<b>4,186</b>	<b>30.4%</b>



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

*Table 2-28: Vulnerable Populations Susceptible to a 100-year Flood Event in Winn Parish.*

*(Source: Hazus)*

Unincorporated Winn Parish		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	3,612	41.0%
Persons Under 5 Years	181	5.0%
Persons Under 18 Years	744	20.6%
Persons 65 Years and Over	686	19.0%
White	2,369	65.6%
Minority	1,243	34.4%

*Table 2-29: Vulnerable Populations Susceptible to a 100-year Flood Event in Atlanta.*

*(Source: Hazus)*

Atlanta		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	88	169.3%
Persons Under 5 Years	6	6.7%
Persons Under 18 Years	31	34.9%
Persons 65 Years and Over	15	16.6%
White	64	72.5%
Minority	24	27.5%

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

*(Source: Hazus)*

Calvin		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	90	37.2%
Persons Under 5 Years	6	6.8%
Persons Under 18 Years	24	26.6%
Persons 65 Years and Over	23	25.0%
White	80	88.5%
Minority	10	11.5%

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

Dodson		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	11	3.7%
Persons Under 5 Years	1	4.8%
Persons Under 18 Years	3	25.2%
Persons 65 Years and Over	1	13.0%
White	7	60.5%
Minority	4	39.5%

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

Sikes		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	12	10.7%
Persons Under 5 Years	2	14.3%
Persons Under 18 Years	5	41.1%
Persons 65 Years and Over	2	16.6%
White	11	87.5%
Minority	2	12.5%

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

Winnfield		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	373	9.0%
Persons Under 5 Years	29	7.8%
Persons Under 18 Years	101	27.0%
Persons 65 Years and Over	62	16.6%
White	150	40.3%
Minority	223	59.7%

#### *Vulnerability*

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

## Sinkholes

Sinkholes are areas of ground—varying in size from a few square feet to hundreds of acres and reaching in depth from 1 to more than 100 ft.—with no natural external surface drainage. Sinkholes are usually found in karst terrain—that is, areas where limestone, carbonate rock, salt beds, and other water-soluble rocks lie below the Earth’s surface. Karst terrain is marked by the presence of other uncommon geologic features such as springs, caves, and dry streambeds that lose water into the ground. In general, sinkholes form gradually (in the case of cover subsidence sinkholes), but they can also occur suddenly (in the case of cover-collapse sinkholes).

Sinkhole formation is a very simple process. Whenever water is absorbed through soil, encounters water-soluble bedrock, and then begins to dissolve it, sinkholes start to form. The karst rock dissolves along cracks; as the fissures grow, soil and other particles fill the gaps, loosening the soil above the bedrock. Figure 1 illustrates the development of a cover subsidence sinkhole. As the soil sinks from the surface, a depression forms, which draws in more water, funneling it down to the water-soluble rock. The increase of water and soil in the rock pushes open the cracks, again drawing more soil and water into it. This positive feedback loop continues, unless clay plugs into the cracks in the bedrock, at which time a pond may form. A sudden cover-collapse sinkhole occurs when the topsoil above dissolving bedrock does not sink, but forms a bridge over the soil that is sinking beneath it. Underground soil continues to fill the bedrock fissures, until finally the soil bridge collapses and fills the void beneath it.

Both kinds of sinkholes can occur naturally or through human influence. While sinkholes tend to form naturally in karst areas, sinkholes can form in other geological areas that have been altered by humans such as mining, sewers, hydraulic fracture drilling, groundwater pumping, irrigation, or storage ponds. In all of these cases, and others, the cause for the sinkhole is that support for surface soil has been weakened or substantially removed.

In the United States, 20% of land in the United States is susceptible to sinkholes. Most of this area lies in Florida, Texas, Alabama, Missouri, Kentucky, Tennessee, and Pennsylvania. In Louisiana, most of the sinkholes are precipitated by the human-influenced collapse of salt dome caverns. The collapse of a salt dome is usually a slow process; however, it may occur suddenly and without any advance warning.

## Location

Currently, there are nine identifiable salt dome locations in Winn Parish. [Figure 2-18](#) displays the location of the salt domes with their relative location to the nearest jurisdiction. All of these salt domes are located in the unincorporated areas of Winn Parish. However, a two-mile buffer reveals the Winnfield and Cedar Creek Salt Domes encompass parts of the incorporated area of Winnfield. Based on previous occurrences of sinkholes in the state of Louisiana, the worst-case scenario for a sinkhole is one approximately 40 acres in size and a depth of 400 feet.

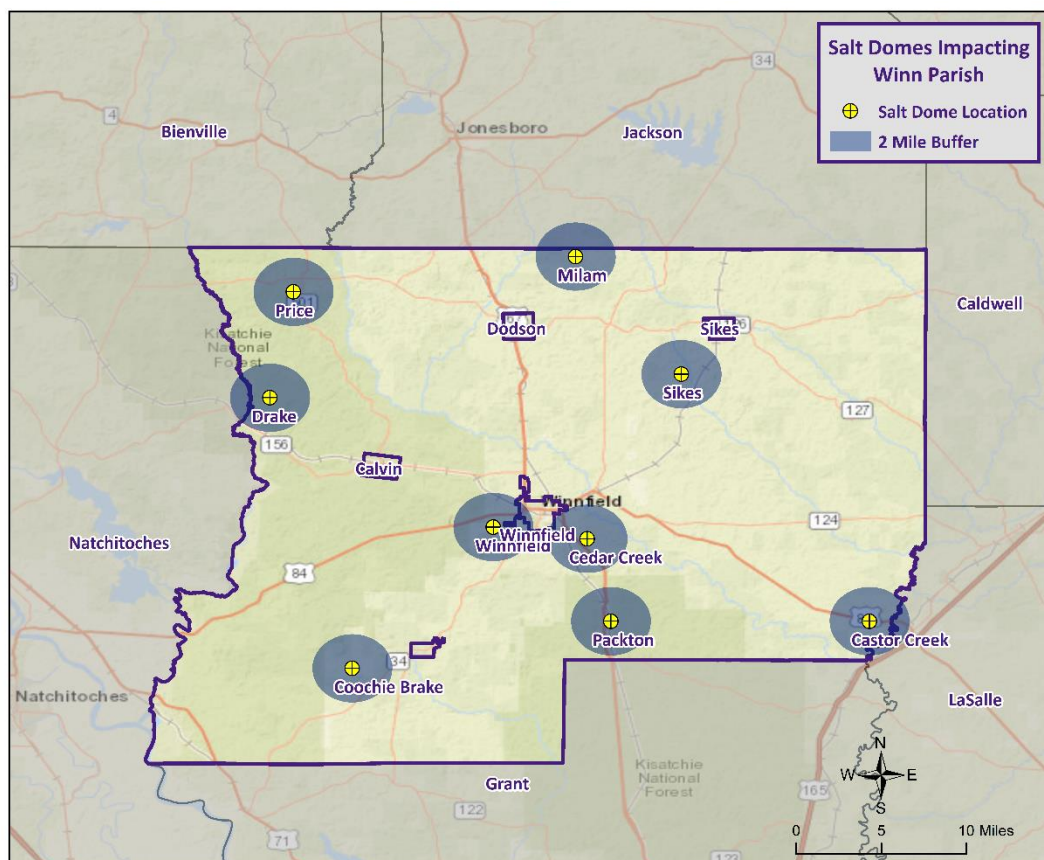


Figure 2-18: Salt Dome Locations in Winn Parish.

#### Previous Occurrences / Extent

To date, there have been no recorded incidents of a sinkhole or salt dome collapse in Winn Parish. While the exact length and depth of a sinkhole caused by a salt dome collapse is unknown, it is theorized based on the average size of salt domes that the parish could expect a sinkhole approximately 40 acres in size and approximately 400 feet deep.

#### Frequency / Probability

Based on historical data for the past 31-years, there has been no recorded incident of a sinkhole formation or salt dome collapse in Winn Parish. The annual chance of occurrence based on this historical data is calculated at less than 1%.

#### Estimated Potential Losses

The nine salt domes were analyzed to determine the number of people and houses that are potentially susceptible to losses from a sinkhole materializing from one of the salt domes. The table on the next page is based on conducting a two-mile buffer around the center of the salt dome. The values were determined by querying the 2020 U.S. Census block data to determine the number of houses and people located within two miles of the salt dome. Critical facilities were also analyzed to determine if they fell within the two-mile buffer of the salt dome. Total value for all occupancy group from Hazus was used to estimate a total loss of all facilities that were within two miles of the salt dome.

*Table 2-34: Estimated Potential Losses from a Sinkhole formation.  
(Source: U.S. 2010 Census Data and Hazus)*

Salt Dome Name	Total Building Exposure	Critical Infrastructure Exposure	Number of People Exposed	Number of Houses Exposed
Castor Creek	\$3,066,000	0	6	3
Cedar Creek	\$39,487,000	0	316	138
Coochie Brake	\$596,000	0	0	0
Drake	\$5,532,000	0	32	16
Milam	\$13,947,000	0	101	47
Packton	\$8,571,000	0	3	1
Price	\$36,486,000	1	47	18
Sikes	\$19,238,000	0	144	97
Winnfield	\$227,093,000	1	817	410

The salt dome that poses the greatest risk to Winn Parish is the Winnfield Salt Dome. The Winnfield Salt dome contains a total of 410 homes, 817 people, and one critical infrastructure within its two-mile buffer.

#### Vulnerability

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



## Thunderstorms

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

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

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

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

- ***Severe Thunderstorm Watch:*** Issued to alert people to the possibility of a severe thunderstorm developing in the area. Expected time frame for these storms is three to six hours.
- ***Severe Thunderstorm Warning:*** Issued when severe thunderstorms are imminent. This warning is highly localized and covers parts of one to several counties (parishes).

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

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

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

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

#### Hazard Description

##### *Hailstorms*

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

Table 2-35: 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 2-36: 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 2-37](#).

*Table 2-37: 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
<b>Straight-line Winds</b>	Wind blowing in straight line; usually associated with intense low-pressure area	High	Few-minutes – 1 day
<b>Downslope Winds</b>	Wind blowing down the slope of a mountain; associated with temperature and pressure gradients	N/A	N/A
<b>Thunderstorm Winds</b>	Wind blowing due to thunderstorms, and thus associated with temperature and pressure gradients	High (especially in the spring and summer)	~Few minutes – several hours
<b>Downbursts</b>	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
<b>Northeaster (nor'easter) Winds</b>	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
<b>Hurricane Winds</b>	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
<b>Tornado Winds</b>	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 2-38* 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 2-38: Beaufort Wind Scale.*

*(Source: NOAA's SPC)*

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

Major damage directly caused by thunderstorm winds is relatively rare, while minor damage is common and pervasive, and most noticeable when it contributes to power outages. These power outages can have major negative impacts such as increased tendency for traffic accidents, loss of revenue for businesses, increased vulnerability to fire, food spoilage, and other losses that might be sustained by a loss of power.

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

### *Lightning*

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



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

Lightning continues to be one of the top three storm-related killers in the United States per FEMA, but it also has the ability to cause negative long-term health effects to the individual that is struck. The following table outlines the lightning activity level that is a measurement of lightning activity.

*Table 2-39: Lightning Activity Level (LAL) Grids.*

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

#### Hazard Profile

##### Hailstorms

##### Location

Hailstorms are a meteorological phenomenon that can occur anywhere. Therefore, the entire planning area for Winn Parish and its jurisdictions are equally at risk for hailstorms. The worst-case scenario for hailstorms is hail up to a 4.25" diameter.

#### Previous Occurrences / Extents

Historically, there have been 104 hail incidents in Winn Parish. Hailstorm diameters have ranged from 0.75 inches to 4.25 inches per the National Climatic Data Center since 1990. The most frequently recorded hail sizes have been 1-inch in diameter. On the next page is a brief synopsis of significant hailstorm events that have occurred in Winn Parish since the 2016 Winn Parish HMP update.

Table 2-40: 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
March 28, 2018	1	\$0	\$0
April 6, 2019	2	\$0	\$0
April 13, 2019	1.75	\$0	\$0
April 25, 2019	0.75	\$0	\$0
February 5, 2020	1.75	\$0	\$0
February 5, 2020	1.75	\$0	\$0
April 22, 2020	1	\$0	\$0
April 22, 2020	1	\$0	\$0
April 22, 2020	0.75	\$0	\$0

### Frequency

Hailstorms occur frequently within Winn Parish with an annual chance of occurrence calculated at 100% based on the records for the past 31 years (1990 - 2021). [Figure 2-19](#) displays the density of hailstorm events in Winn Parish, while [Figure 2-20](#) provides an overview of hailstorm size based on location.

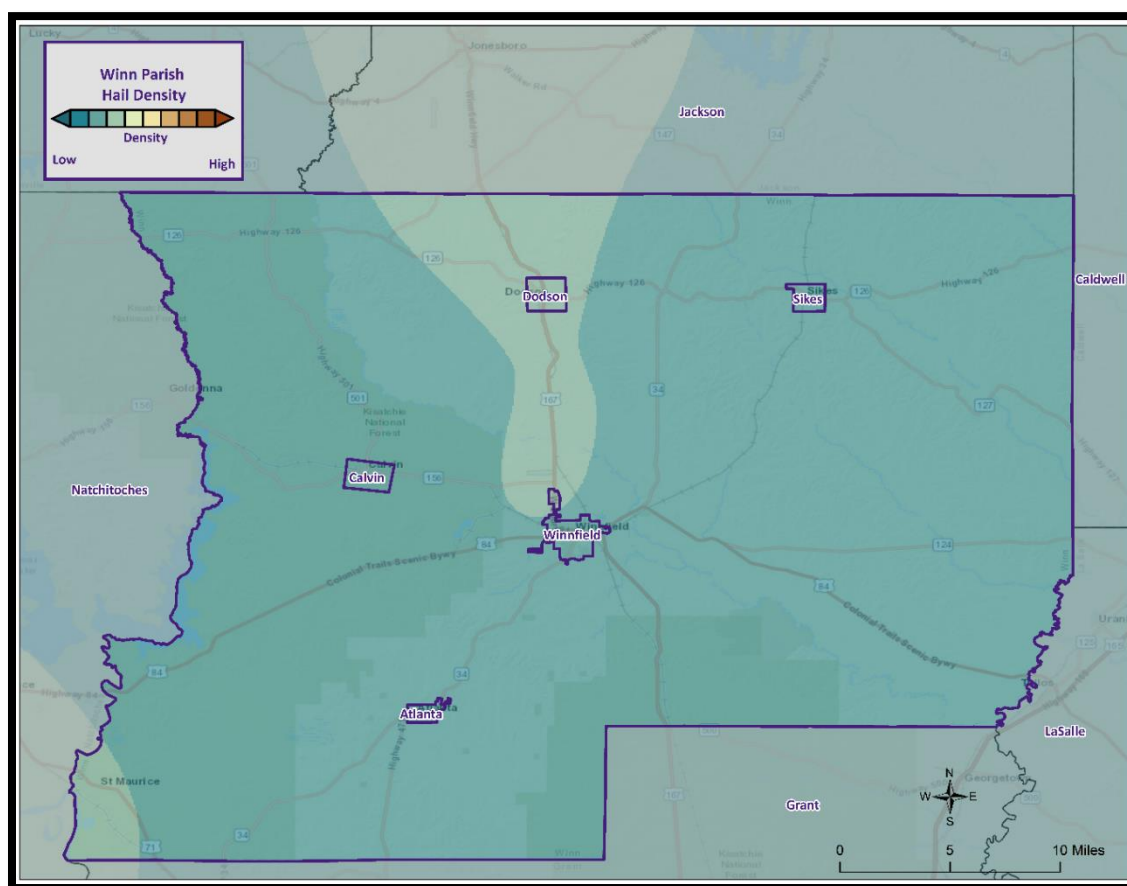


Figure 2-19: Density of Hailstorms by Diameter in Winn Parish

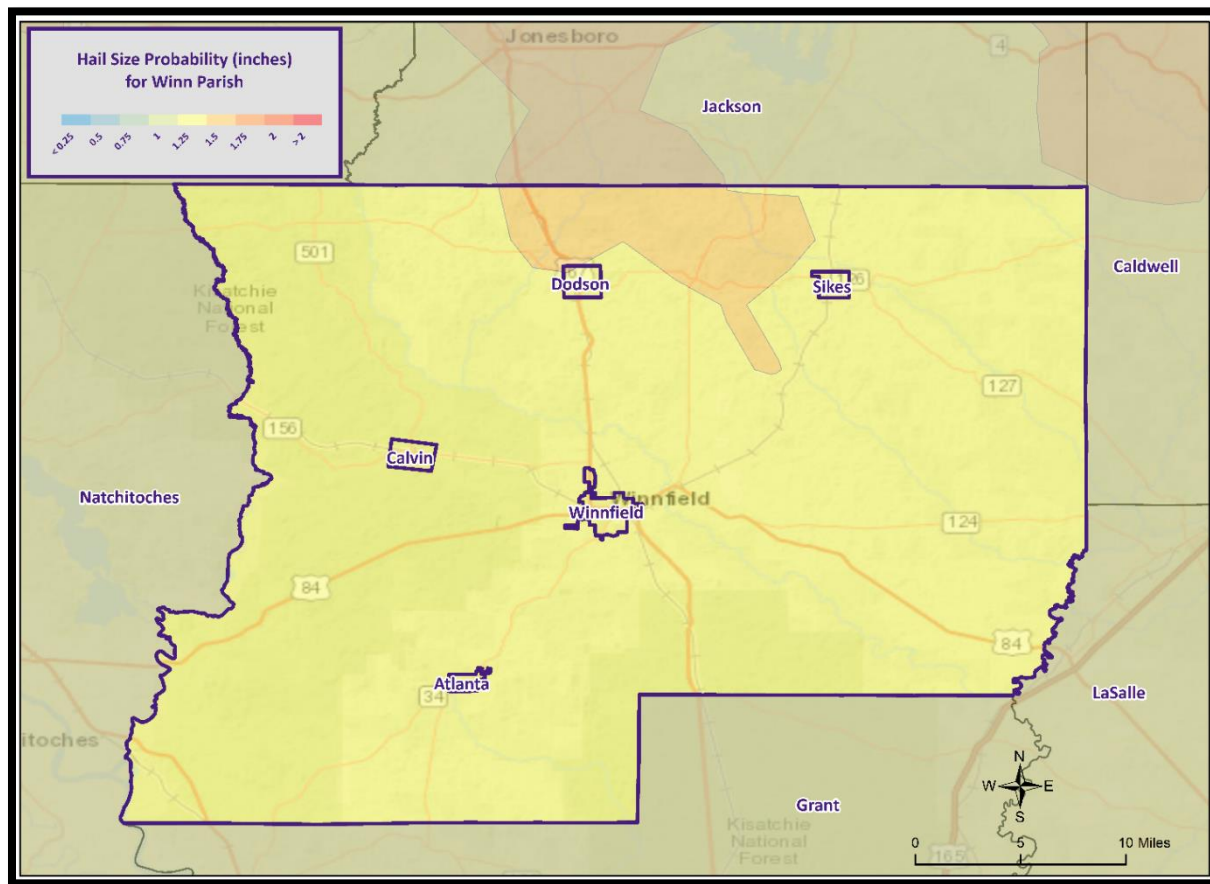


Figure 2-20: Hail Size Probability in Inches for Winn Parish.

#### Estimated Potential Losses

Since 1990, there have been 104 significant hail events that have resulted in property damages according to NCEI Storm Events Database. The total property damages associated with those storms have totaled approximately \$11,000. To estimate the potential losses of a hailstorm event on an annual basis, the total damages recorded for hailstorm events was divided by the total number of years of available hail data in the NCEI Storm Events Database (1990 - 2021). This provides an annual estimated potential loss of \$355 and \$106 per event. The following table provides an estimate of potential property losses for Winn Parish:

Table 2-41: Estimated Annual Losses Winn Parish and its Jurisdictions Resulting from Hailstorms.

Estimated Potential Annual Losses from Hailstorms					
Unincorporated Area	Atlanta	Calvin	Dodson	Sikes	Winnfield
\$227	\$4	\$6	\$8	\$3	\$107

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

#### Vulnerability

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

*High Winds**Location*

Because high winds are a meteorological phenomenon that can occur anywhere, the entire planning area for Winn Parish is equally at risk from high winds. The worst-case scenario for thunderstorm high wind is wind speeds of approximately 104 mph.

*Previous Occurrences / Extents*

Historically, there have been 207 thunderstorm high wind events in Winn Parish. The high wind events have ranged in windspeeds from 58 mph to 104 mph per the National Climatic Data Center since 1990. Below is a brief synopsis of the events which have impacted Winn Parish Planning area since the 2016 Winn Parish HMP update.

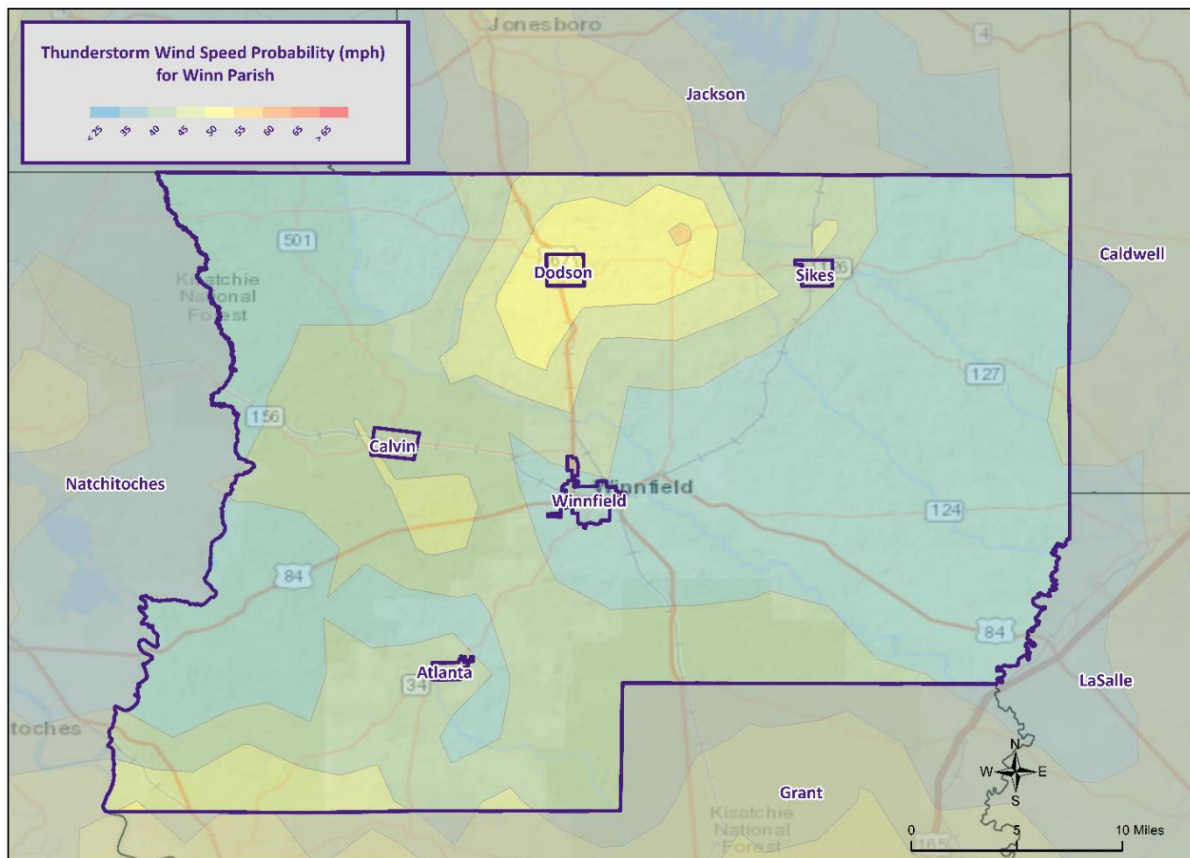
*Table 2-42: Previous Occurrences for Thunderstorm High Wind Events since the 2016 Hazard Mitigation Plan Update.*

*(Source: NCEI Storm Events Database)*

Date	Wind Speed (mph)	Property Damage	Crop Damage
March 24, 2017	64	\$0	\$0
March 24, 2017	64	\$0	\$0
April 2, 2017	70	\$0	\$0
April 30, 2017	81	\$0	\$0
April 30, 2017	64	\$0	\$0
March 28, 2018	60	\$0	\$0
April 6, 2018	64	\$0	\$0
June 3, 2018	60	\$0	\$0
July 29, 2018	60	\$0	\$0
July 31, 2018	60	\$0	\$0
July 31, 2018	60	\$0	\$0
July 31, 2018	60	\$0	\$0
August 6, 2018	64	\$0	\$0
August 6, 2018	64	\$0	\$0
May 19, 2019	60	\$0	\$0
May 19, 2019	70	\$0	\$0
June 24, 2019	75	\$0	\$0
November 30, 2019	70	\$0	\$0
April 22, 2020	64	\$0	\$0
April 22, 2020	64	\$0	\$0
May 4, 2021	60	\$0	\$0
May 10, 2021	64	\$0	\$0

### Frequency

High winds are a fairly common occurrence within Winn Parish and its jurisdictions with an annual chance of occurrence calculated at 100% based on the records for the past 31 years (1990 - 2021). *Figure 2-21* displays the thunderstorm wind speed probability for Winn Parish and its jurisdictions.



*Figure 2-21: Thunderstorm High Wind Speed Probability in Miles Per Hour for Winn Parish.*

### Estimated Potential Losses

Since 1990, there has been 207 significant wind events that have resulted in property damages according to NCEI Storm Events Database. The total property damage associated with this storm totaled approximately \$262,050. To estimate the potential losses of a wind event on an annual basis, the total damages recorded for wind events was divided by the total number of years of available wind data in the NCEI Storm Events Database (1990 - 2021). This provides an annual estimated potential loss of \$8,453 and \$1,266 per event. The following table provides an estimate of potential property losses for Winn Parish:

*Table 2-43: Estimated Annual Property Losses in Winn Parish resulting from Wind Damage.*

Estimated Potential Annual Losses from High Winds					
Unincorporated Area	Atlanta	Calvin	Dodson	Sikes	Winnfield
\$5,411	\$92	\$149	\$181	\$69	\$2,552

There have been no fatalities and one injury as a result of a thunderstorm high wind event over the 31-year record.

### Vulnerability

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

### Lightning

#### Location

Like hail and high winds, lightning is a meteorological phenomenon that can occur anywhere within the Winn Parish planning area. The worst-case scenario for lightning events is a lightning activity level of 3 which is approximately 9 to 15 lightning strikes every 15 minutes.

#### Previous Occurrences / Extent

Historically, there have been no significant lightning events in Winn Parish and its jurisdictions between the years 1990 and 2021.

#### Frequency

Lightning can strike anywhere and is produced by every thunderstorm, so the chance of lightning occurring in Winn 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. Winn Parish experienced nine significant lightning events between the years 1990 and 2021 resulting in a less than 1% annual chance of occurrence.

#### Estimated Potential Losses

Since 1990, there have been no significant lightning events that have resulted in damage, loss of life, or injuries per the NCEI Storm Events Database.

### 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 2-44](#) 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 2-44: 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 2-45: Fujita and Enhanced Fujita Tornado Damage Scale.*

Scale	Typical Damage
<b>F0/EF0</b>	Light damage. Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
<b>F1/EF1</b>	Moderate damage. Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads.
<b>F2/EF2</b>	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars overturned; light-object missiles generated; cars lifted off ground.
<b>F3/EF3</b>	Severe damage. Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.
<b>F4/EF4</b>	Devastating damage. Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown and large missiles generated.
<b>F5/EF5</b>	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 Winn Parish with actual locations, tornadoes in general are a climatological based hazard and have the same approximate probability of occurring in Winn Parish as all of its jurisdictions. Because a tornado has a similar probability of striking anywhere within the planning area for Winn Parish, all areas in the parish are equally at risk for tornadoes.

#### Previous Occurrences / Extent

The NCEI Storm Events Database reports a total of 24 tornadoes or waterspouts occurring within the boundaries of Winn Parish since 1990 ranging in extent from F0 to F1 under the Fujita Scale and EF0 to EF4 on the Enhanced Fujita Scale. Winn Parish can expect future tornadoes up to an EF4 under the Enhanced Fujita Scale as a worst-case scenario.

The most destructive tornado to impact Winn Parish was an EF2 tornado which occurred on May 3, 2009. The EF2 tornado damaged numerous homes in the town of Dodson including 27 mobile homes and 11 built in structures which was worth over \$3 million. The tornado responsible for the most injuries and fatalities occurred on March 22, 1952. The tornado was responsible for 22 injuries and two fatalities. Since the 2016 HMP Update, 10 tornadoes have occurred within the boundaries of Winn Parish. On the next page is a list and brief description of the impact for each event.

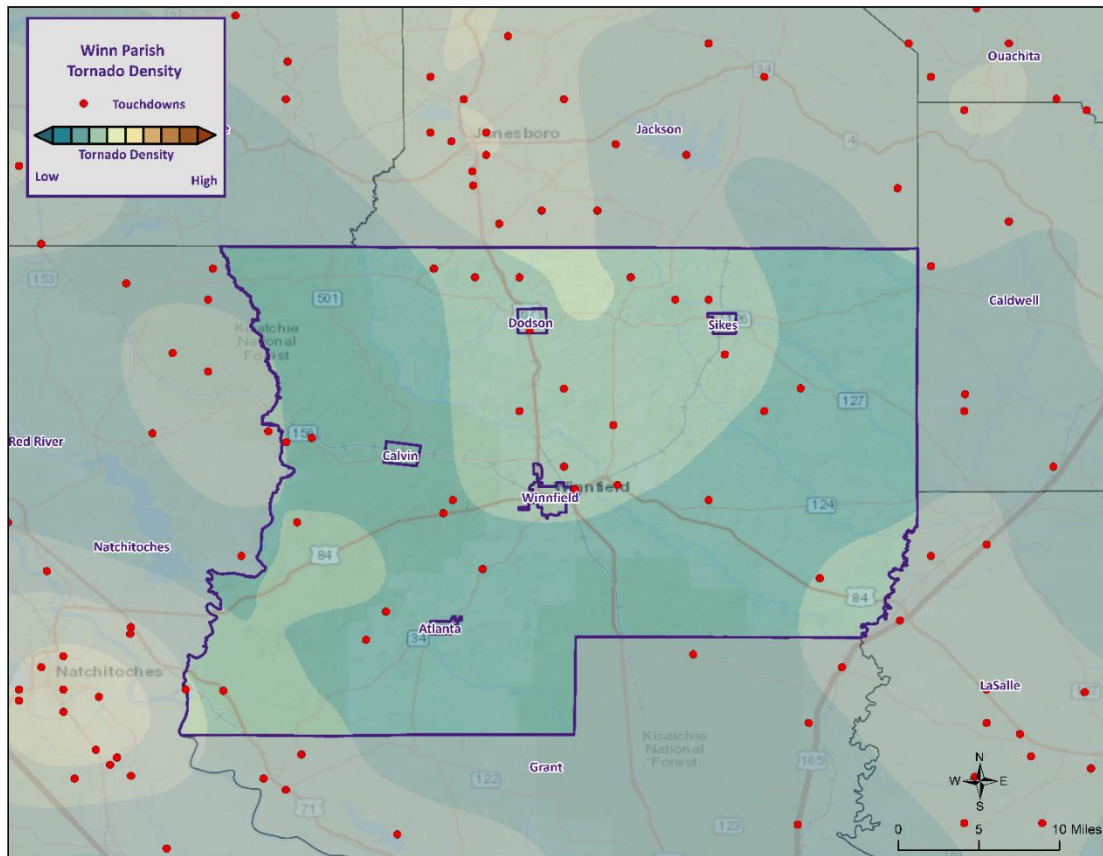
*Table 2-46: Historical Tornadoes in Winn Parish with Locations since the 2016 Update.*

Date	Impacts	Property Damage	Location	Magnitude
March 24, 2017	1.23 mile path with a width of 350 yards. An EF-1 tornado with maximum estimated winds between 95-105 mph touched down along Highway 505 just west of the Wyatt community, snapping several trees. This tornadic damage was sporadic and interspersed with straight line wind damage that occurred along and north of Highway 505.	\$3,000	GANSVILLE	EF1
April 2, 2017	1.5 mile path with a width of 1108 yards. This tornado entered into Southern Winn Parish in the Kisatchie National Forest with maximum estimated winds of 100-110 mph, where it cut a clear path through the forest, where it crossed Zion Road, and Patrick Road, before lifting along Highway 472.	\$0	JORDON HILL	EF1
April 2, 2017	2.63 mile path with a width of 1108 yards. This tornado intensified as it moved into Southwest Winn Parish, where maximum estimated winds ranged between 100-110 mph, and tracked northeast across Davidson Road, where falling trees destroyed a truck and RV. A nearby house sustained roof damage as well. The tornado moved across Mitchell and McLane Roads, where several outbuildings were damaged, rolled, or destroyed. Other nearby homes also lost shingles from their roofs. This tornado finally lifted just north of Harrisonburg Road.	\$70,000	MARS HILL	EF1
April 30, 2017	6.87 mile path with a width of 1760 yards. An EF-1 tornado touched down along Highway 34 several miles northeast of Winnfield, and initially moved north along the highway before turning to the northeast, crossing Brewer Road, James Ketchum Road, Friendship Church Road and Highway 126. Numerous trees were snapped and uprooted along its path, especially along James Ketchum, Friendship Church Road, and Highway 126. Some outbuildings were damaged, and one home had a tree fall on the patio roof. The tornado lifted just north of Highway 126 just west of Sikes.	\$50,000	MENEFEE	EF1
May 28, 2017	1.13 mile path with a width of 564 yards. An EF-1 tornado with maximum estimated winds of around 95 mph touched down in the Kisatchie National Forest just east of Saline Bayou along Parish Road 964. Numerous hardwood and softwood trees were snapped and uprooted as the	\$0	COLDWATER	EF1

Date	Impacts	Property Damage	Location	Magnitude
	tornado traveled south-southeast through the forest and roughly parallel to the bayou before lifting along Barnett Road.			
May 28, 2017	0.12 mile path with a width of 127 yards. A brief EF-1 tornado with maximum estimated winds near 95 mph touched down in the Kisatchie National Forest between the Coldwater community and Calvin along Highway 156. Numerous hardwood and softwood trees were snapped and uprooted along both side of Highway 156 as this tornado traveled southeast.	\$0	COLDWATER	EF1
May 28, 2017	0.09 mile path with a width of 135 yards. A brief EF-1 tornado with maximum estimated winds around 95 mph touched down in the Kisatchie National Forest west of Winnfield along Highway 84. Numerous hardwood and softwood trees were snapped and uprooted as the tornado traveled from northwest to southeast across Highway 84.	\$0	CALVIN	EF1
March 28, 2018	11.72 mile path with a width of 1200 yards. This tornado intensified shortly after crossing into Winn Parish along Highway 84, where it caused considerable tree damage in the Kisatchie National Forest before the tornado started to take a more northeasterly turn near the southern sections of Saline Lake.	\$200,000	ST MAURICE	EF1
November 5, 2018	3.08 mile path with a width of 50 yards. This EF-1 tornado, with maximum estimated winds around 107 mph, touched down on Highway 71, and tracked northeast across Wheeling Road, before lifting on Black Mountain Road. Approximately 25 trees were snapped or uprooted along the path of this tornado.	\$0	ST MAURICE	EF1
May 8, 2019	2.04 mile path with a width of 250 yards. This is a continuation of the EF-1 tornado for extreme Northeast Natchitoches Parish just northeast of the Readhimer community. An aerial survey from the U.S. Forest Service indicated that this tornado, with maximum estimated winds near 100 mph, remained on the ground in the Kisatchie National Forest, snapping, uprooting, and twisting numerous trees along its path before lifting.	\$0	MILL	EF1

### Frequency / Probability

Tornadoes occur frequently within Winn Parish and its jurisdictions with an annual chance of occurrence calculated at 77% based on the records for the past 31 years (1990 - 2021). *Figure 2-22* displays the density of tornado touchdowns in Winn Parish and neighboring parishes.



*Figure 2-22: Location and Density of Tornadoes to Touchdown in Winn Parish.  
(Source: NOAA/SPC Severe Weather Database)*

### Estimated Potential Losses

According to the NCEI Storm Events Database, there have been 24 tornadoes that have caused some level of property damage. The total damage from the actual claims for property is approximately \$4,872,000 with an average cost of \$203,000 per tornado event. When annualizing the total cost over the 31-year record, total annual losses based on tornadoes are estimated to be \$157,161. The following table provides an annual estimate of potential losses for Winn Parish.

*Table 2-47 Estimated Annual Losses for Tornadoes in Winn Parish.*

Estimated Annual Losses for Tornadoes					
Unincorporated Area	Atlanta	Calvin	Dodson	Sikes	Winnfield
\$100,604	\$1,702	\$2,765	\$3,359	\$1,280	\$47,451

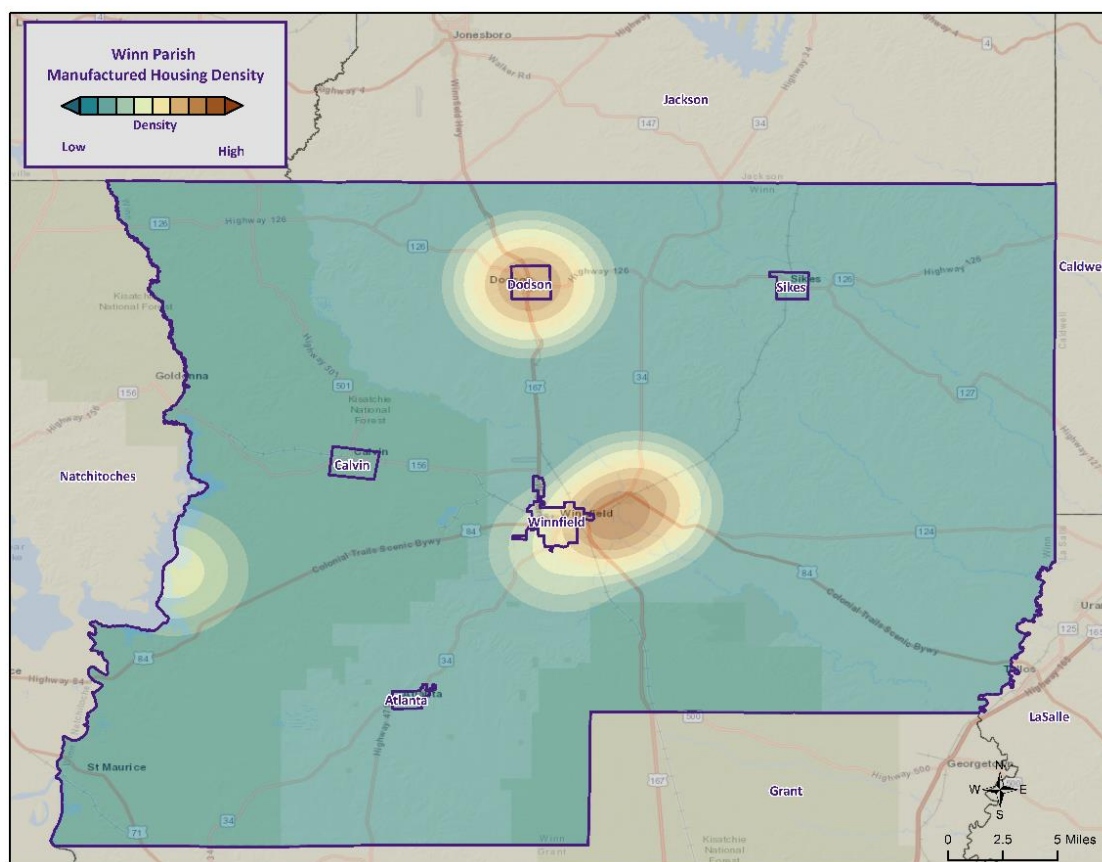
*Table 2-48* presents an analysis of building exposure that are susceptible to tornadoes by general occupancy type for Winn Parish along with the percentage of building stock that are mobile homes.

Table 2-48: Building Exposure by General Occupancy Type for Tornadoes in Winn Parish.  
(Source: Hazus)

Building Exposure by General Occupancy Type for Tornadoes (\$1,000)							
Residential	Commercial	Industrial	Agricultural	Religion	Government	Education	Mobile Homes (%)
1,688,791	260,508	102,909	7,508	98,544	17,140	16,984	24.3

The Parish has suffered through a total of 24 events in which tornadoes or waterspouts have accounted for three injuries and no fatalities during this 31-year period.

In accessing the overall risk to population, the most vulnerable population throughout the parish are those residing in manufacturing housing. Approximately 24.3% of all housing in Winn Parish consists of manufactured housing. The location and density of manufactured houses can be seen in [Figure 2-23](#).



*Figure 2-23: Location and Approximate Number of Units in Manufactured Housing Locations throughout Winn Parish.*

## Vulnerability

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



### Tropical Cyclones

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

Table 2-49: 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 Winn Parish planning area. The worst-case scenario for a tropical cyclone event in Winn Parish is a Category 1 Hurricane.

#### [Previous Occurrences / Extents](#)

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

*Table 2-50: Historical Tropical Cyclone Events in Winn Parish from 2002 – 2022.*

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

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

#### *Tropical Storm Laura (2020)*

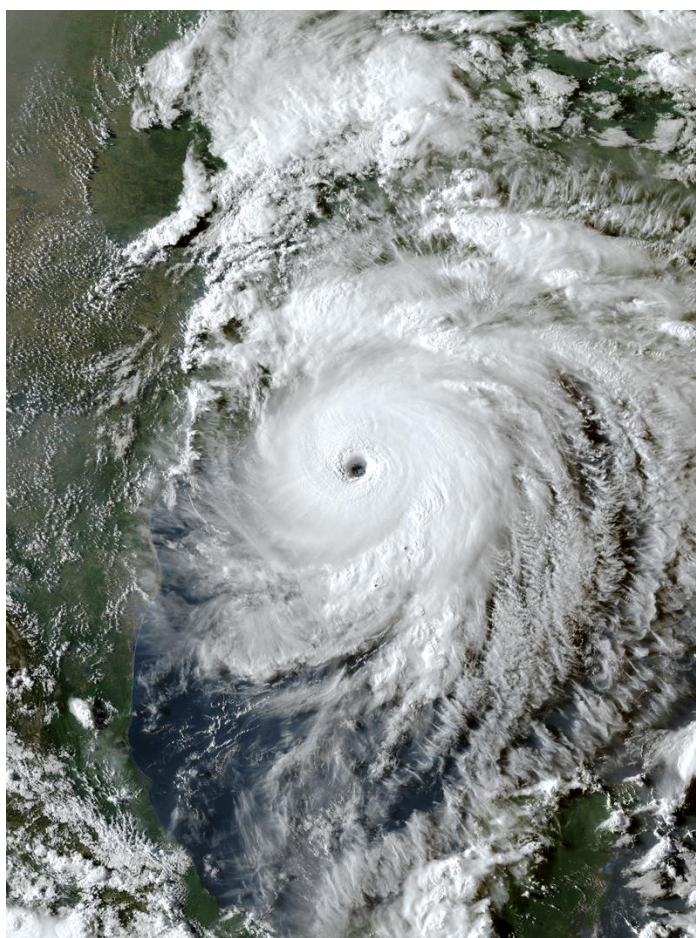
Laura began as a large tropical wave that emerged off the west coast of Africa on August 16<sup>th</sup>. The wave traversed the tropical Atlantic for the next several days with little additional organization. On August 19<sup>th</sup>, the system became better organized, closed off a low-level circulation,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

On the morning of August 21<sup>st</sup>, 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 22<sup>nd</sup>. Early on August 23<sup>rd</sup>, 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 24<sup>th</sup>.

On August 25<sup>th</sup>, Laura entered the Gulf of Mexico and became a Category 1 hurricane at 10 AM CDT. Laura began to explosively intensify on August 26<sup>th</sup>, 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 27<sup>th</sup>, 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 27<sup>th</sup>. 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 2-24: 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 Winn Parish during the cleanup process, and eight others died in Beauregard Parish, Grant Parish, Winn Parish, and Vernon Parish due to heat-related illnesses following the loss of electricity.

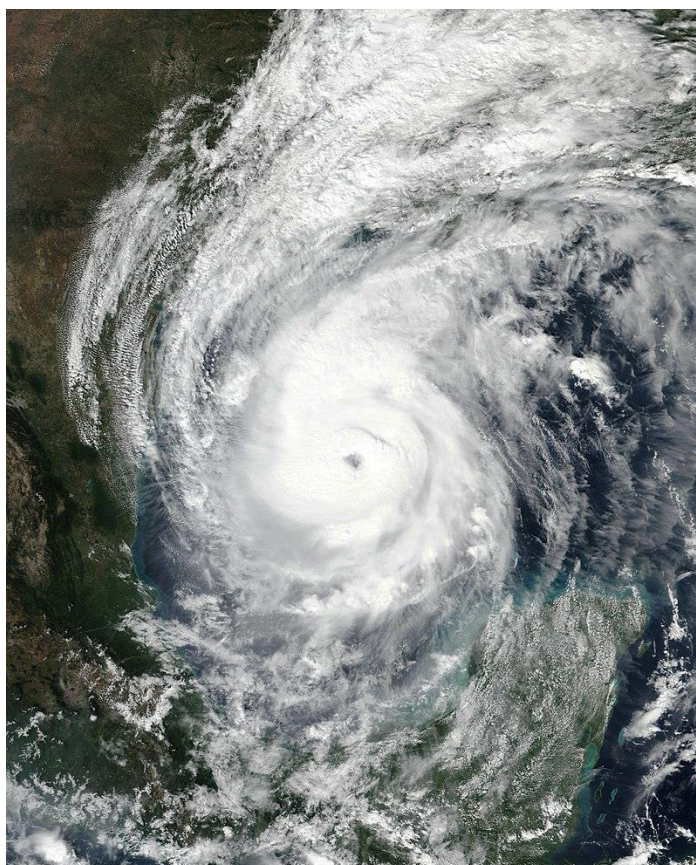
In Winn Parish, scattered to widespread tree damage was observed particularly across the central and western portions of the parish. Tree damage in Winnfield was significant with mostly uproots and some snaps. A few incidents of structural roof damage occurred due to winds.

#### *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 2-25: 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 Winn Parish, scattered and power lines were downed throughout the parish. Power outages to over 60 percent of the parish residents occurred. Highway 501 between Winnfield and Calvin was flooded along with Highway 1228 between Winnfield and Atlanta.



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

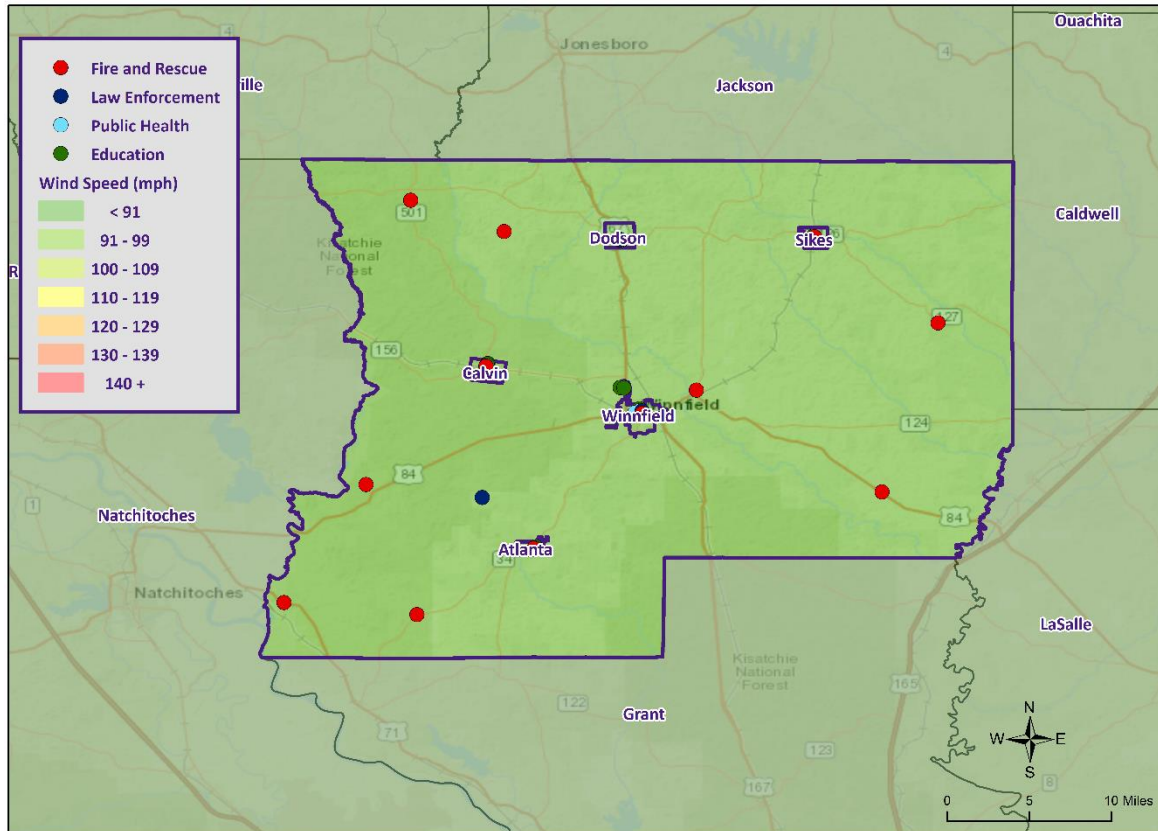


Figure 2-26: Winds Zones for Winn Parish in Relation to Critical Facilities

#### Frequency / Probability

Tropical cyclones are large natural hazard events that regularly impact Winn Parish. The annual chance of occurrence for a tropical cyclone is estimated at 26% for Winn Parish with five events occurring within 19 years (2002 to 2021). The tropical cyclone season for the Atlantic Basin is from June 1st through November 30<sup>th</sup>, 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 Winn Parish and its jurisdictions are highly vulnerable to tropical cyclones. This area has experienced several tropical cyclone events in the past and can expect more in the future.

#### Estimated Potential Losses

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

*Table 2-51: Total Estimated Losses for a 100-Year Hurricane Event in Winn Parish*  
(Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event
<b>Unincorporated Winn Parish</b>	\$986,442
<b>Atlanta</b>	\$16,693
<b>Calvin</b>	\$27,112
<b>Dodson</b>	\$32,937
<b>Sikes</b>	\$12,548
<b>Winnfield</b>	\$465,269
<b>Total</b>	<b>\$1,541,000</b>

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

*Table 2-52: Ratio of Total Losses to Total Estimated Value of Assets for Winn Parish*  
(Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event	Total Estimated Value of Assets	Ratio of Estimated Losses to Total Value
<b>Winn Parish (Unincorporated)</b>	\$986,442	\$1,362,192,000	0.1%
<b>Atlanta</b>	\$16,693	\$22,263,000	0.1%
<b>Calvin</b>	\$27,112	\$28,784,000	0.1%
<b>Dodson</b>	\$32,937	\$45,410,000	0.1%
<b>Sikes</b>	\$12,548	\$17,513,000	0.1%
<b>Winnfield</b>	\$465,269	\$716,222,000	0.1%

Based on the Hazus Hurricane Model, estimated total losses for Winn Parish and its jurisdictions is approximately 0.1% of the total estimated value of all assets.

The Hazus Hurricane Model also provides a breakdown for seven primary sectors (Hazus occupancy) throughout the parish. The losses for Winn Parish by sector are listed in the tables on the following pages.

*Table 2-53: Estimated Losses in Unincorporated Winn Parish for a 100-Year Hurricane Event*  
(Source: Hazus)

Unincorporated Winn Parish	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$698
Commercial	\$14,083
Government	\$1,315
Industrial	\$3,841
Religious / Non-Profit	\$5,262
Residential	\$952,515
Schools	\$9,527
<b>Total</b>	<b>\$986,442</b>

*Table 2-54: Estimated Losses in Atlanta for a 100-Year Hurricane Event*  
(Source: Hazus)

Atlanta	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$238
Government	\$22
Industrial	\$65
Religious / Non-Profit	\$87
Residential	\$16,119
Schools	\$0
<b>Total</b>	<b>\$16,693</b>

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

Calvin	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$387
Government	\$0
Industrial	\$106
Religious / Non-Profit	\$0
Residential	\$26,179
Schools	\$246
<b>Total</b>	<b>\$27,112</b>

*Table 2-56: Estimated Losses in Dodson for a 100-Year Hurricane Event*  
(Source: Hazus)

<b>Dodson</b>	<b>Estimated Total Losses from 100-Year Hurricane Event</b>
<b>Agricultural</b>	\$0
<b>Commercial</b>	\$470
<b>Government</b>	\$43
<b>Industrial</b>	\$128
<b>Religious / Non-Profit</b>	\$171
<b>Residential</b>	\$31,805
<b>Schools</b>	\$0
<b>Total</b>	<b>\$32,937</b>

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

<b>Sikes</b>	<b>Estimated Total Losses from 100-Year Hurricane Event</b>
<b>Agricultural</b>	\$0
<b>Commercial</b>	\$179
<b>Government</b>	\$16
<b>Industrial</b>	\$49
<b>Religious / Non-Profit</b>	\$65
<b>Residential</b>	\$12,116
<b>Schools</b>	\$0
<b>Total</b>	<b>\$12,548</b>

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

<b>Winnfield</b>	<b>Estimated Total Losses from 100-Year Hurricane Event</b>
<b>Agricultural</b>	\$302
<b>Commercial</b>	\$6,642
<b>Government</b>	\$604
<b>Industrial</b>	\$1,812
<b>Religious / Non-Profit</b>	\$2,415
<b>Residential</b>	\$449,267
<b>Schools</b>	\$4,227
<b>Total</b>	<b>\$465,269</b>

## Threat to People

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

*Table 2-59: Number of People Susceptible to a 100-Year Hurricane Event in Winn Parish*

*(Source: Hazus)*

Number of People Exposed to Hurricane Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
<b>Unincorporated Winn Parish</b>	8,805	8,805	100%
<b>Atlanta</b>	149	149	100%
<b>Calvin</b>	242	242	100%
<b>Dodson</b>	294	294	100%
<b>Sikes</b>	112	112	100%
<b>Winnfield</b>	4,153	4,153	100%
<b>Total</b>	<b>13,755</b>	<b>13,755</b>	<b>100%</b>

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

*Table 2-60: Vulnerable Populations in Unincorporated Winn Parish for a 100-Year Hurricane Event*

*(Source: Hazus)*

Unincorporated Winn Parish		
Category	Total Numbers	Percentage of People in Hazard Area
<b>Number in Hazard Area</b>	8,805	100.0%
<b>Persons Under 5 Years</b>	440	5.0%
<b>Persons Under 18 Years</b>	1,814	20.6%
<b>Persons 65 Years and Over</b>	1,673	19.0%
<b>White</b>	5,776	65.6%
<b>Minority</b>	3,029	34.4%

*Table 2-61: Vulnerable Populations in Atlanta for a 100-Year Hurricane Event*

*(Source: Hazus)*

Atlanta		
Category	Total Numbers	Percentage of People in Hazard Area
<b>Number in Hazard Area</b>	149	100.0%
<b>Persons Under 5 Years</b>	10	6.7%
<b>Persons Under 18 Years</b>	52	34.9%
<b>Persons 65 Years and Over</b>	25	16.6%
<b>White</b>	108	72.5%
<b>Minority</b>	41	27.5%

*Table 2-62: Vulnerable Populations in Calvin for a 100-Year Hurricane Event*  
(Source: Hazus)

Calvin		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	242	100.0%
Persons Under 5 Years	16	6.8%
Persons Under 18 Years	64	26.6%
Persons 65 Years and Over	61	25.0%
White	214	88.5%
Minority	28	11.5%

*Table 2-63: Vulnerable Populations in Dodson for a 100-Year Hurricane Event*  
(Source: Hazus)

Dodson		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	294	100.0%
Persons Under 5 Years	14	4.8%
Persons Under 18 Years	74	25.2%
Persons 65 Years and Over	38	13.0%
White	178	60.5%
Minority	116	39.5%

*Table 2-64: Vulnerable Populations in Sikes for a 100-Year Hurricane Event*  
(Source: Hazus)

Sikes		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	112	100.0%
Persons Under 5 Years	16	14.3%
Persons Under 18 Years	46	41.1%
Persons 65 Years and Over	19	16.6%
White	98	87.5%
Minority	14	12.5%



*Table 2-65: Vulnerable Populations in Winnfield for a 100-Year Hurricane Event  
(Source: Hazus)*

Winnfield		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	4,153	100.0%
Persons Under 5 Years	324	7.8%
Persons Under 18 Years	1,121	27.0%
Persons 65 Years and Over	689	16.6%
White	1,674	40.3%
Minority	2,479	59.7%

#### 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 2-66: 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 Winn Parish is a level 5; Sikes is a level 4; Dodson is a level 3.5, Calvin and Winnfield are a level 3, and Atlanta is a level 2. The following figure displays the areas of wildland-urban interface and intermix in Winn Parish and its jurisdictions.

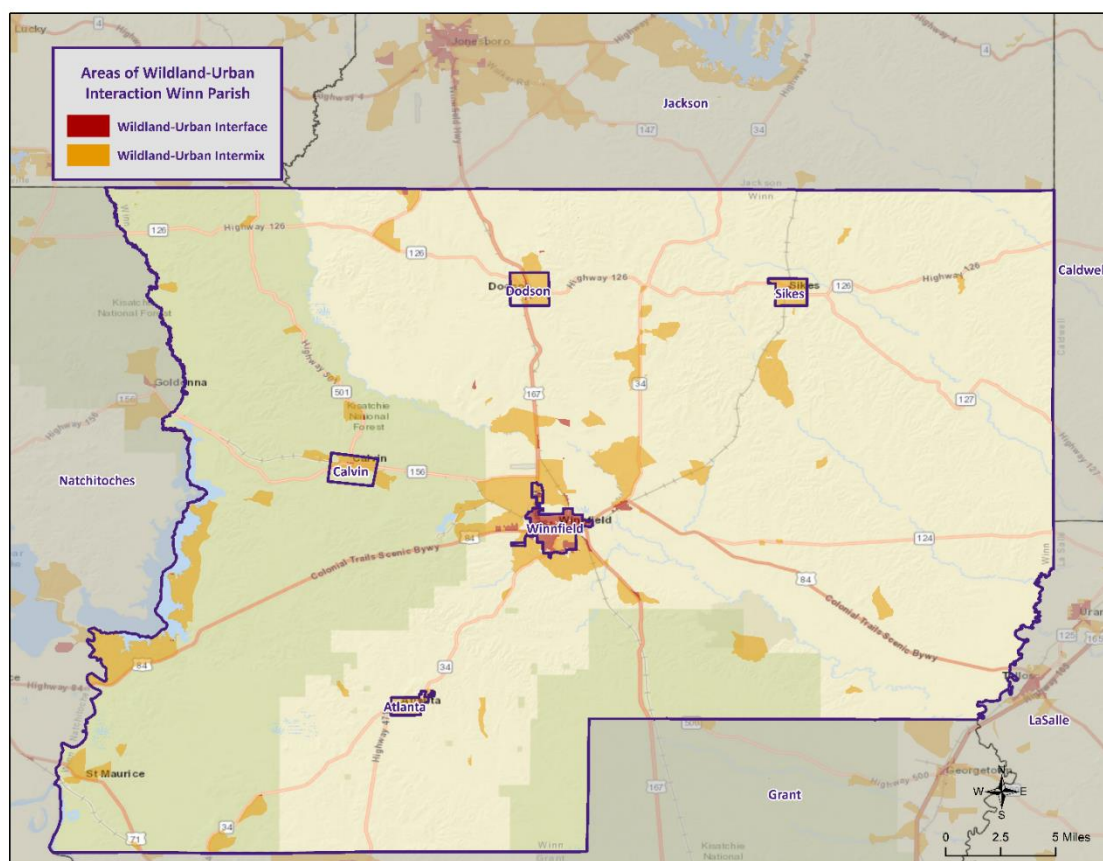


Figure 2-27: Wildland-Urban Interaction in Winn Parish.

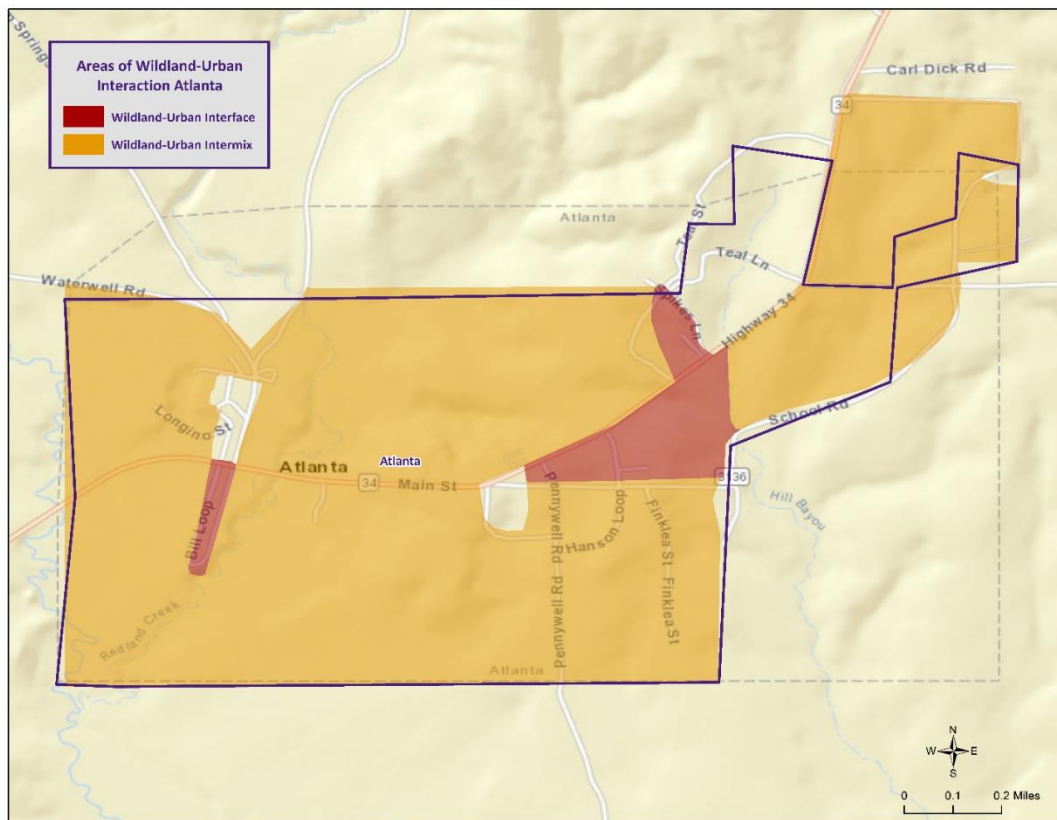


Figure 2-28: Wildland-Urban Interaction in Atlanta.

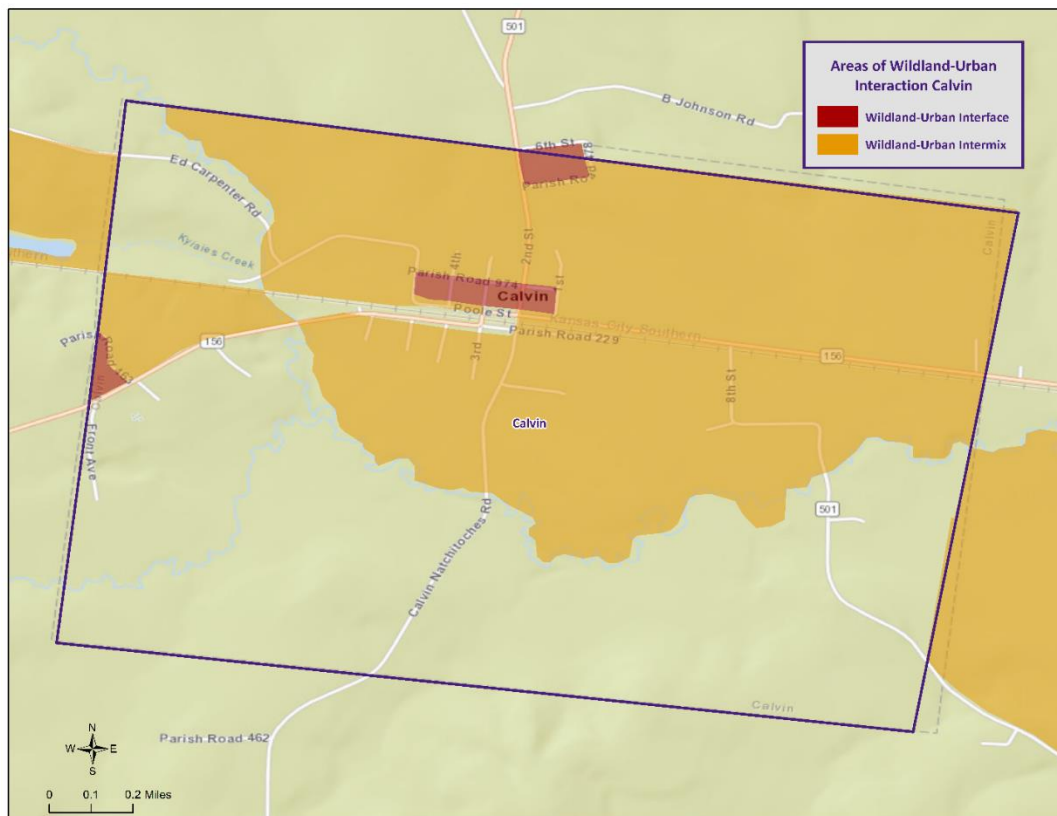
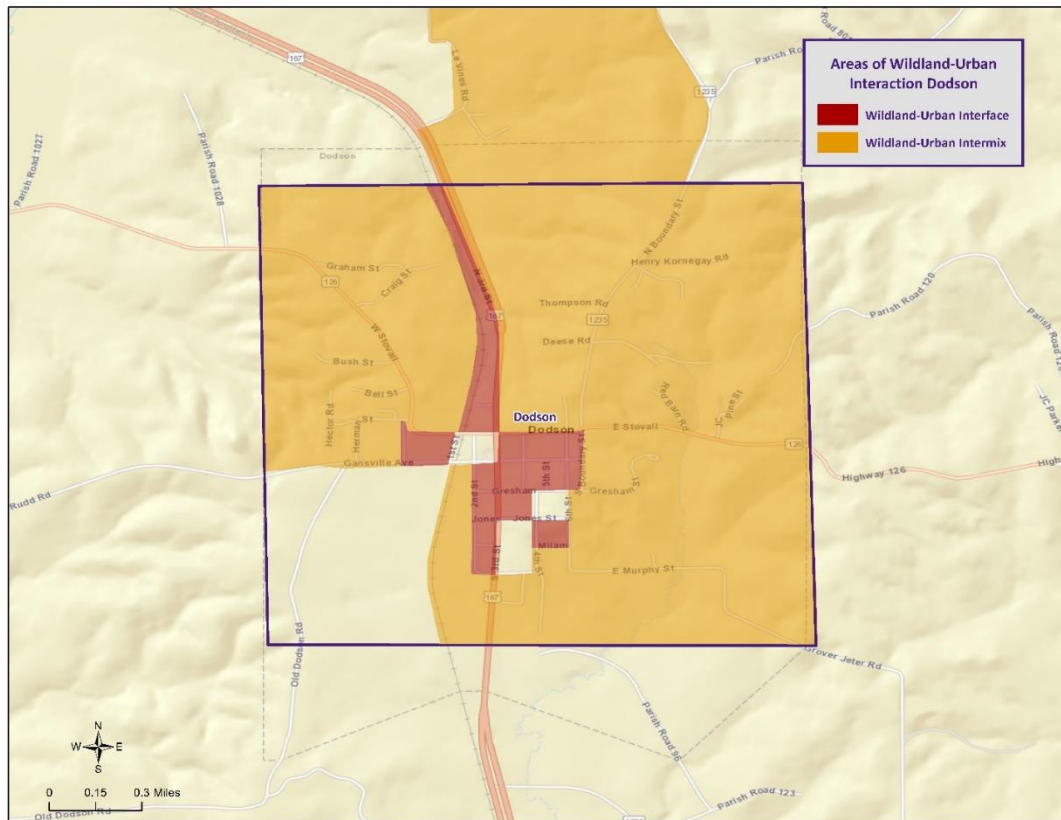
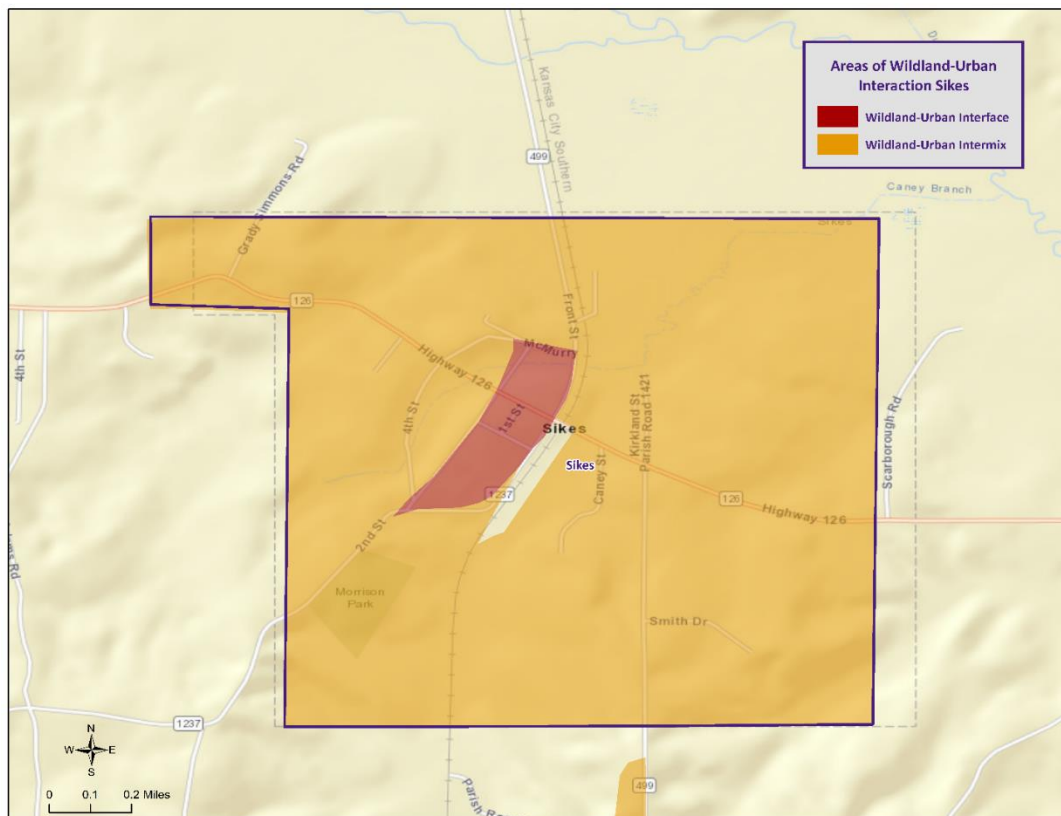


Figure 2-29: Wildland-Urban Interaction in Calvin.



*Figure 2-30: Wildland-Urban Interaction in Dodson.*



*Figure 2-31: Wildland-Urban Interaction in Sikes.*



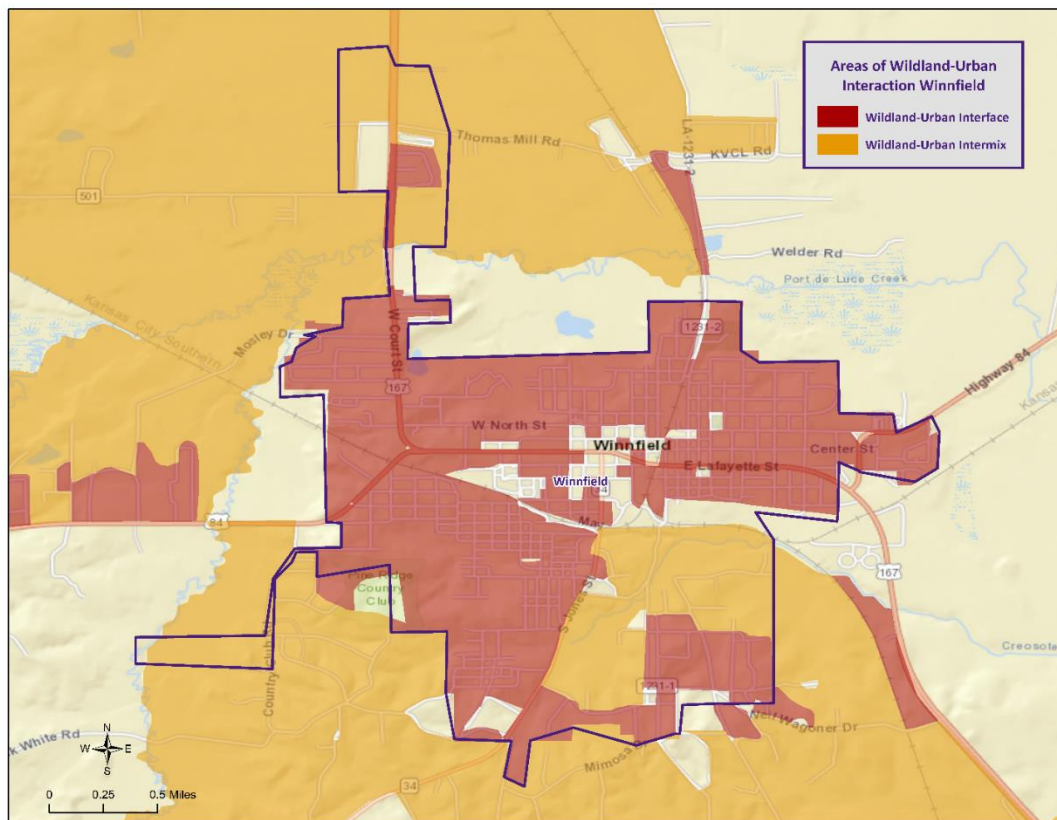


Figure 2-32: Wildland-Urban Interaction in Winnfield.

#### Previous Occurrences / Extents

The NCEI Storm Events report no wildfire events occurring within the boundaries of Winn Parish between the years 1990 and 2021.

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

Table 2-67: Potential Wildfire Intensity Levels for Winn Parish.  
(Source: Southern Wildfire Assessment Portal)

Fire Intensity	
Unincorporated Winn Parish	High Intensity Level 5
Atlanta	Low Intensity Level 2
Calvin	Moderate Intensity Level 3
Dodson	Moderate to High Intensity Level 3.5
Sikes	High Intensity Level 4
Winnfield	Moderate Intensity Level 3



### Frequency / Probability

Based on historical records, there have been no significant wildfire events within the boundaries of Winn Parish and its jurisdictions; therefore, the annual chance of occurrence for wildfires is estimated at less than 1%.

### Estimated Potential Loses

According to the NCEI Storm Events database, there have been no wildfire events which have caused property damage, crop damage, injuries, or fatalities in Winn 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 2-68: Total Building Exposure by Wildland-Urban Interaction Areas.  
(Source: Hazus)*

Jurisdiction	Estimated Total Building Exposure
<b>Unincorporated Winn Parish</b>	\$892,916,000
<b>Atlanta</b>	\$21,053,000
<b>Calvin</b>	\$34,966,000
<b>Dodson</b>	\$43,763,000
<b>Sikes</b>	\$16,281,000
<b>Winnfield</b>	\$696,017,000
<b>Total</b>	<b>\$1,704,996,000</b>

Hazus also provides a breakdown by jurisdiction for seven primary sectors (Hazus occupancy) throughout the parish. Utilizing this information with the wildland-urban interaction areas allows for identifying the total exposure by jurisdiction. The total exposure for each jurisdiction by sector is listed in the following tables. These sectors are comprised of privately owned structures/facilities, as well as locally, state, and federally owned structures/facilities.

*Table 2-69: Estimated Exposure for Unincorporated Winn Parish by Sector.  
(Source: Hazus)*

Unincorporated Winn Parish	Estimated Total Building Exposure by Sector
<b>Agricultural</b>	\$4,936,000
<b>Commercial</b>	\$65,273,000
<b>Government</b>	\$838,000
<b>Industrial</b>	\$62,333,000
<b>Religious / Non-Profit</b>	\$35,230,000
<b>Residential</b>	\$723,826,000
<b>Schools</b>	\$480,000
<b>Total</b>	<b>\$892,916,000</b>

*Table 2-70: Estimated Exposure for Atlanta by Sector.**(Source: Hazus)*

Atlanta	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$736,000
Government	\$338,000
Industrial	\$913,000
Religious / Non-Profit	\$608,000
Residential	\$18,458,000
Schools	\$0
<b>Total</b>	<b>\$21,053,000</b>

*Table 2-71: Estimated Exposure in Calvin by Sector.**(Source: Hazus)*

Calvin	Estimated Total Building Exposure by Sector
Agricultural	\$340,000
Commercial	\$908,000
Government	\$0
Industrial	\$1,092,000
Religious / Non-Profit	\$478,000
Residential	\$31,254,000
Schools	\$894,000
<b>Total</b>	<b>\$34,966,000</b>

*Table 2-72: Estimated Exposure in Dodson by Sector.**(Source: Hazus)*

Dodson	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$3,954,000
Government	\$844,000
Industrial	\$3,016,000
Religious / Non-Profit	\$2,520,000
Residential	\$33,429,000
Schools	\$0
<b>Total</b>	<b>\$43,763,000</b>

Table 2-73: Estimated Exposure in Sikes by Sector.

(Source: Hazus)

Sikes	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$1,016,000
Government	\$508,000
Industrial	\$313,000
Religious / Non-Profit	\$606,000
Residential	\$13,838,000
Schools	\$0
<b>Total</b>	<b>\$16,281,000</b>

Table 2-74: Estimated Exposure in Winnfield by Sector.

(Source: Hazus)

Winnfield	Estimated Total Building Exposure by Sector
Agricultural	\$478,000
Commercial	\$148,515,000
Government	\$13,289,000
Industrial	\$10,715,000
Religious / Non-Profit	\$33,496,000
Residential	\$480,304,000
Schools	\$9,220,000
<b>Total</b>	<b>\$696,017,000</b>

### 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 2-75: 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 Winn Parish	8,805	6,902	78.4%
Atlanta	149	149	100%
Calvin	242	232	95.9%
Dodson	294	294	100%
Sikes	112	112	100%
Winnfield	4,153	3,944	95.0%
<b>Total</b>	<b>13,755</b>	<b>11,633</b>	<b>84.6%</b>

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 2-76: Population in Unincorporated Winn Parish Located within a Wildland-Urban Interaction Area.  
(Source: 2010 Census Data)*

Unincorporated Winn Parish		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	6,902	78.4%
Persons Under 5 Years	345	5.0%
Persons Under 18 Years	1,422	20.6%
Persons 65 Years and Over	1,311	19.0%
White	4,528	65.6%
Minority	2,374	34.4%

*Table 2-77: Population in Atlanta Located within a Wildland-Urban Interaction Area.  
(Source: 2010 Census Data)*

Atlanta		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	149	100.0%
Persons Under 5 Years	10	6.7%
Persons Under 18 Years	52	34.9%
Persons 65 Years and Over	25	16.6%
White	108	72.5%
Minority	41	27.5%

*Table 2-78: Population in Calvin Located within a Wildland-Urban Interaction Area.  
(Source: 2010 Census Data)*

Calvin		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	232	95.9%
Persons Under 5 Years	16	6.8%
Persons Under 18 Years	62	26.6%
Persons 65 Years and Over	58	25.0%
White	205	88.5%
Minority	27	11.5%

*Table 2-79: Population in Dodson Located within a Wildland-Urban Interaction Area.  
(Source: 2010 Census Data)*

Dodson		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	294	100.0%
Persons Under 5 Years	14	4.8%
Persons Under 18 Years	74	25.2%
Persons 65 Years and Over	38	13.0%
White	178	60.5%
Minority	116	39.5%

*Table 2-80: Population in Sikes Located within a Wildland-Urban Interaction Area.  
(Source: 2010 Census Data)*

Sikes		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	112	100.0%
Persons Under 5 Years	16	14.3%
Persons Under 18 Years	46	41.1%
Persons 65 Years and Over	19	16.6%
White	98	87.5%
Minority	14	12.5%

*Table 2-81: Population in Winnfield Located within a Wildland-Urban Interaction Area.  
(Source: 2010 Census Data)*

Winnfield		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	3,944	95.0%
Persons Under 5 Years	308	7.8%
Persons Under 18 Years	1,065	27.0%
Persons 65 Years and Over	655	16.6%
White	1,589	40.3%
Minority	2,355	59.7%

#### 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 2-82: 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 Winn Parish as all of the adjacent parishes, the entire planning area for Winn Parish is equally at risk for winter storms. The worse-case scenario for Winn Parish and all of its jurisdictions is a level 2 on the Sperry-Piltz Ice Accumulation Index.

#### Previous Occurrences / Extents

The NCEI Storm Events Database reports 11 winter weather events occurring within the boundaries of Winn Parish between the years 1990 and 2021. Below is a brief synopsis of the winter weather events which occurred since the last Winn Parish HMP Update in 2016.

*Table 2-83: Previous Occurrences for Winter Storm Events*

Date	Synopsis	Property Damage	Crop Damage
January 6, 2017	Icing of bridges and overpasses across the parish occurred resulting in hazardous travel conditions.	\$0	\$0
December 8, 2017	In Winn Parish, Winnfield recorded 0.5 inches of snow when an arctic airmass was in place throughout the region.	\$0	\$0
January 16, 2018	Winn Parish received approximately 2 inches of snow fall throughout the parish.	\$0	\$0
February 8, 2019	Ice accumulation occurred throughout the parish resulting in hazardous travel conditions.	\$0	\$0

#### Frequency / Probability

Based on historical records, there have been 11 significant winter weather events within the boundaries of Winn Parish and its jurisdictions; therefore, the annual chance of occurrence for winter weather is estimated at 36%.

#### Estimated Potential Losses

Since 1990, there have been 11 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 \$8,000. To estimate the potential losses of a winter weather event on an annual basis, the total damages recorded for winter weather was divided by the total number of years of available winter weather in the NCEI Storm Events Database (1990 - 2021). This provides an annual estimated potential loss of \$258 and \$727 per event. The following table provides an estimate of potential property losses for Winn Parish:

*Table 2-84: Estimated Annual Losses Winn Parish and its Jurisdictions Resulting from Winter Weather.*

Estimated Annual Potential Losses from Winter Weather					
Unincorporated Area	Atlanta	Calvin	Dodson	Sikes	Winnfield
\$165	\$3	\$5	\$6	\$2	\$78

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

#### Vulnerability

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

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

*Table 3-1: Planning and Regulatory Capabilities*

Planning and Regulatory							
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.							
	Winn Parish	Atlanta	Calvin	Dotson	Sikes	Winnfield	Comments
<b>Plans</b>	<b>Yes / No</b>						
Comprehensive / Master Plan	Yes	Yes	Yes	Yes	Yes	No	
Capital Improvements Plan	Yes	Yes	Yes	Yes	Yes	No	
Economic Development Plan	Yes	Yes	Yes	Yes	Yes	No	
Local Emergency Operations Plan	Yes	Yes	Yes	Yes	Yes	No	
Continuity of Operations Plan	Yes	No	No	No	No	No	
Transportation Plan	No	No	No	No	No	No	
Stormwater Management Plan	No	No	No	No	No	No	
Community Wildfire Protection Plan	No	No	No	No	No	No	
Other plans (redevelopment, recovery, coastal zone management)	No	No	No	No	No	No	
<b>Building Code, Permitting and Inspections</b>	<b>Yes / No</b>						
Building Code	Yes	Yes	Yes	Yes	Yes	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	No	No	No	No	No	
Fire Department ISO/PIAL rating	Yes	No	Yes	Yes	Yes	N/A	
Site plan review requirements	Yes	No	Yes	Yes	Yes	Yes	
<b>Land Use Planning and Ordinances</b>	<b>Yes / No</b>						
Zoning Ordinance	No	No	No	No	No	No	
Subdivision Ordinance	No	No	No	No	No	No	
Floodplain Ordinance	Yes	Yes	Yes	Yes	Yes	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	No	No	No	No	No	
Flood Insurance Rate Maps	Yes	Yes	Yes	Yes	Yes	Yes	
Acquisition of land for open space and public recreation uses	No	No	No	No	No	Yes	
Other		No	No	No	No	No	

All jurisdictions within the Winn 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

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

As of the 2023 update, Winn 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 Winn 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 Winn 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 Winn 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 Winn 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 of government that can provide technical assistance, indicate so in the comments							
	Winn Parish	Atlanta	Calvin	Dodson	Sikes	Winnfield	Comments
<b>Administration</b>	<b>Yes / No</b>						
Planning Commission	Yes	Yes	Yes	Yes	Yes	No	
Mitigation Planning Committee	Yes	Yes	Yes	Yes	Yes	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Yes	Yes	Yes	Yes	No	
<b>Staff</b>	<b>Yes / No</b>						
Chief Building Official	Yes	Yes	Yes	Yes	Yes	Yes	
Floodplain Administrator	Yes	Yes	Yes	Yes	Yes	Yes	
Emergency Manager	Yes	Yes	Yes	Yes	Yes	No	
Community Planner	No	No	No	No	No	Yes	
Civil Engineer	Yes	Yes	Yes	Yes	Yes	Yes	
GIS Coordinator	Yes	Yes	Yes	Yes	Yes	No	
Grant Writer	No	No	No	No	No	No	
Other	No	No	No	No	No	No	
<b>Technical</b>	<b>Yes / No</b>						
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Yes	Yes	Yes	Yes	No	
Hazard Data & Information	Yes	Yes	Yes	Yes	Yes	No	
Grant Writing	No	No	No	No	No	No	
Hazus Analysis	No	No	No	No	No	No	
Other	No	No	No	No	No	No	

Financial capabilities are the resources that Winn 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 Winn 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.							
	Winn Parish	Atlanta	Calvin	Dodson	Sikes	Winnfield	Comments
<b>Funding Resource</b>	<b>Yes / No</b>						
Capital Improvements project funding	Yes	Yes	Yes	Yes	Yes	No	
Authority to levy taxes for specific purposes	Yes	Yes	Yes	Yes	Yes	No	
Fees for water, sewer, gas, or electric services	Yes	Yes	Yes	Yes	Yes	Yes	
Impact fees for new development	No	No	No	No	No	No	
Stormwater Utility Fee	No	No	No	No	No	No	
Community Development Block Grant (CDBG)	Yes	Yes	Yes	Yes	Yes	Yes	
Other Funding Programs	Yes	Yes	Yes	Yes	Yes	No	

## Education and Outreach

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

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

*Table 3-4: Education and Outreach Capabilities*

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

As reflected with the above existing regulatory mechanisms, programs and resources within the parish, the jurisdictions within the Winn Parish planning area remain committed to expanding and improving on the existing capabilities within the parish. Communities will work together along with Winn 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 Winn 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 Winn Parish nor any of the incorporated jurisdictions participate in the CRS program.

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

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

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



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

SFHA (Zones A, AE, A1-A30, V, V1-V30, AO, and AH): Discount varies depending on class.  
 SFHA (Zones A99, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO): 10% discount for Classes 1-6; 5% discount for Classes 7-9.\*  
 Non-SFHA (Zones B, C, X, D): 10% discount for Classes 1-6; 5% discount for Classes 7-9.

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

As of October 2022, 352 communities in the State of Louisiana participate in the Federal Emergency Management Agency's National Flood Insurance Program (NFIP). Of these communities, 47 (or 13%) participate in the Community Rating System (CRS). Jefferson Parish leads the state with a rating of Class 5, followed by four cities with a rating of Class 6: the Cities of Gretna and Kenner in Jefferson Parish and the Cities of Mandeville and Slidell

in St. Tammany Parish. Of the top fifty Louisiana communities, in terms of total flood insurance policies held by residents, 29 participate in the CRS. The remaining 21 communities present an outreach opportunity for encouraging participation in the CRS.

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

In 2011<sup>1</sup>, 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.

<sup>1</sup> <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 Winn 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 Winn Parish Hazard Mitigation Plan Planning Committee under the coordination of the Winn 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 December 2022 – February 2023.

An online public opinion survey of Winn Parish residents was conducted between October 2022 and February 2023. The survey was designed to capture public perceptions and opinions regarding natural hazards in the Winn 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 Winn 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 Winn Parish survey results can be found at the following link:

[https://www.surveymonkey.com/results/SM-uNEWaRm7P6EqzK\\_2F2UwebHQ\\_3D\\_3D/](https://www.surveymonkey.com/results/SM-uNEWaRm7P6EqzK_2F2UwebHQ_3D_3D/)

### Goals

The goals represent the guidelines that the parish and its communities want to achieve with this plan update. To help implement the strategy and adhere to the mission of the Hazard Mitigation Plan, the preceding section of the plan update was focused on identifying and quantifying the risks faced by the residents and property owners in Winn 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, Winn 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 Winn Parish Hazard Mitigation Plan Update Planning Committee represent long-term commitments by the parish. After assessing these goals, the committee decided that the current remain valid.

The goals are as follows:

1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards
2. Enhance public awareness and understanding of disaster preparedness and mitigation
3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities
4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards

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

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

### 2023 Mitigation Actions and Update on Previous Plan Actions

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

## Winn Parish Mitigation Actions

## Previous Action Update

Mitigation Action Update - Unincorporated Winn Parish						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
WIN1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and assures that the public buildings can be used, occupied and operable during or after storms.	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Winn Parish Mitigation Action 1)
WIN2: 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.	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	In Progress
WIN3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Winn Parish Mitigation Action 2)
WIN4: Safe Room Projects	Construction of a safe room for first responders located in Winn Parish. Other locations will be identified based on funding availability.	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Winn Parish Mitigation Action 3)



WIN5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Drought, Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
WIN6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Drought, Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
WIN7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Thunderstorms	In Progress
WIN8: Warning Systems	Update/upgrade public warning system components throughout Winn Parish as necessary. Install audible and/or reverse 911 warning system(s)	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
WIN9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals in Parish, and provide protection of potable water supply by acquisition/ installation of backflow preventers at appropriate critical locations.	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	In Progress
WIN10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA HMGP, Local	1-5 years	Winn Parish OHSEP	Flooding, Tropical Cyclones	Ongoing

WIN11: Elevation and Acquisition of (NFIP) Repetitive Loss Structures	Objectives include, but are not limited to, Elevate and acquire the four (4) Repetitive Loss structures located in SFHA areas in the unincorporated parish, and/or other flood-prone structures with documented repetitive flood damage, and/or that become NFIP RL structures in the future.	homeowner participation, HMGP funding	1-5 years	Winn Parish	Flooding	Deleted - Duplicate WIN3
WIN12: Flood-Proofing	Objectives include, but are not limited to, Dry flood-proofing critical facilities located in SFHA's, such as the Winn Parish Medical Center or Winn Parish Airport.	HMGP funding	1-5 years	Winn Parish	Flooding	Not Started - Carried Over (See Winn Parish Mitigation Action 4)
WIN13: Retrofitting Critical Facilities	Objectives include, but are not limited to, Wind hardening the Winn Parish Courthouse and Sheriff's Station, as well as the Town Halls in the Villages of Atlanta, Calvin, Dodson and Sikes.	HMGP funding	1-5 years	Winn Parish	Thunderstorms, Tornadoes, Tropical Cyclones	Deleted - Duplicate WIN1
WIN14: Safe Rooms	Objectives include, but are not limited to, Constructing safe rooms at the Winn Parish Courthouse, Winnfield Police Station and Dodson Town Hall	HMGP funding	1-5 years	Winn Parish	Tornadoes	Deleted - Duplicate WIN4
WIN15: Drainage Improvements	Improving the drainage capacity around roads and low-lying areas is a time-tested technique to mitigate flood damage. Improving drainage capacity in Winn parish can mitigate damage to buildings, critical facilities, and infrastructure (roads, bridges, culverts, pump station equipment, etc.), as well as damage to agricultural crops and pasture land. Improved drainage also protects life by ensuring through-passage on evacuation routes.	HMGP funding	1-5 years	Winn Parish	Flooding	Deleted - Duplicate WIN2

WIN16: Public Awareness and Education	<p>Objectives include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Parish and municipal programs to educate the citizenry on flood and high wind (thunderstorm, tornado) hazard risks, potential impacts and mitigation opportunities;</li> <li>• Municipal volunteer fire-fighter training in wildfire prevention and fire-fighting provided by the Kisatchie National Forest (US Forest Service).</li> </ul> <p>Winn Parish Hazard Mitigation Plan Update 92</p> <ul style="list-style-type: none"> <li>• Parish and municipal participation in Louisiana Department of Environmental Quality (LDEQ)'s Wellhead Protection Program to increase the public awareness of ground water protection to reduce drought impact potential;</li> <li>• Parish and municipal partnerships with Kisatchie National Forest staff, to conduct public information campaigns on wildfire risks and mitigation techniques, and volunteer programs for reducing wildfire risks in the Urban Wildland Interface;</li> <li>• Parish and municipal participation in Louisiana Department of Agriculture and Forestry (LDAF)'s Fire Wise program which teaches homeowners landscaping and proper storage of flammable materials to prevent fires in the Urban-Wildland Interface.</li> </ul>	HMGP funding	1-5 years	Winn Parish	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Sinkholes, Wildfires	Deleted - Duplicate WIN5
WIN17: Ordinances and Building Codes	<p>As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance in Calvin, and/or the fire permitting process in the unincorporated parish.</p>	Parish and HMGP funding	1-5 years	Winn Parish	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing

WIN18: Zoning and Subdivision Regulations	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.	Parish and HMGP funding	1-5 years	Winn Parish	Drought, Flooding, Thunderstorms, Wildfires	Ongoing
WIN19: Early Warning Systems	Objectives include, but are not limited to, the implementation of a parish-wide siren system, where sirens are strategically placed in order to be heard by all parish citizens in all locations; and, the implementation of a ring-down "reverse 911" system which utilizes existing phone lines to simultaneously call all phone numbers within a specified geographic area with an automated warning disseminated.	Parish and HMGP funding	1-5 years	Winn Parish	Flooding, Thunderstorms, Tornadoes, Wildfires	Deleted - Duplicate WIN8

## New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 2. Enhance public awareness and understanding of disaster preparedness 4. Facilitate sound development in the Parish and municipalities to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high wind related events, and helps assure that the public buildings can be used, occupied and operable during or after storms.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

## Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 2	Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

**Additional Supporting Information:**



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 3	Safe Room Projects
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Winn 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 personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 4	Flood-Proofing
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards. 3. Reduce repetitive flood losses in the parish 4. Facilitate sound development in the parish and municipalities to reduce or eliminate the potential impact of hazards.
PRIORITY	High
Action Description	Objectives include, but are not limited to, Dry flood-proofing critical facilities located in SFHA's, such as the Winn Parish Medical Center or Winn Parish Airport.
Type of Mitigation Action	Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Flood proofing projects will allow for additional building code reform to prevent repetitive flood loss that certain facilities face
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 5	Water-Saving Measures
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Plans and Regulations, Natural System Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 6	Emergency Response Communications Plan
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages from hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness</li> <li>3. Reduce repetitive flood losses in the parish</li> <li>4. Facilitate sound development in the Parish and municipalities to reduce or eliminate the potential impact of hazards</li> </ol>
PRIORITY	High
Action Description	Maintain parish-wide emergency response communications plan
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Emergency response communication plans will allow for improvement of response when mitigation hazard/disaster events and for essential personnel to assess the areas in need
Current Status of Action	New
Hazard Addressed	Drought, Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 7	Regulate Development in Sinkhole Buffer Areas
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 2. Enhance public awareness and understanding of disaster preparedness 4. Facilitate sound development in the Parish and municipalities to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Regulations would include prohibiting development in areas that have been identified as “at risk” or restricting development in areas with close proximities to salt domes
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Regulating development where sinkhole hazards are present, will prevent property loss.
Current Status of Action	New
Hazard Addressed	Sinkholes

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 8	Inventory all water wells in the vicinity of the sinkholes to encourage abandonment.
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 2. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Inventory all water wells in the vicinity of the sinkhole to encourage abandonment.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Risk of sinkholes reduced
Current Status of Action	New
Hazard Addressed	Sinkholes

#### Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 9	Preventative Land Use and Planning Regulations
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Local government can mitigate future loss by regulating development in wildfire hazard areas through land use planning by using zoning ordinances for high-risk areas, addressing the density of development, the parish's access to emergency response, and the quantity of the areas water supply.
Type of Mitigation Action	Local Plans and Regulations, Natural Systems Protection
How Action Aligns with Risk Reduction	Preventative measures with land use planning will prevent property loss and loss of life during imminent wildfire events
Current Status of Action	New
Hazard Addressed	Wildfires

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 10	Enhance Landscaping and Design Measures
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize drought-tolerant landscape which will reduce the dependence on irrigation practices, using permeable driveways and surfaces to reduce runoff and promote groundwater recharge, and provide incentives for the public that engages in these practices
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Enhancing landscape and design measures allows for drought events to be less severe.
Current Status of Action	New
Hazard Addressed	Drought

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS WINN PARISH	
DESCRIPTION	
WINN PARISH MITIGATION ACTION 11	Procure All-Weather/Hazard Emergency Alert Radios
LEAD AGENCY	Winn Parish OHSEP
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 2. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Purchase weather radios for public, to be used for emergency notification.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Allows for redundant communications with citizens. Also provides citizens with method to access weather related information in the event of systems being down. Increases overall safety of the community.
Current Status of Action	New
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather, Wildfires

## Village of Atlanta Mitigation Actions

## Previous Action Update

Village of Atlanta						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
ATL1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Thunderstorms, Tornadoes, Tropical Cyclones	Ongoing
ATL2: Drainage Improvements	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Ongoing
ATL3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Atlanta Mitigation Action 1)
ATL4: Safe Room Projects	Construction of a safe room for first responders located in Atlanta. Other locations will be identified based on funding availability.	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Atlanta Mitigation Action 2)

ATL5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
ATL6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Atlanta Mitigation Action 3)
ATL7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Thunderstorms	Ongoing
ATL8: Warning Systems	Update/upgrade public warning system components throughout Atlanta as necessary. Install audible and/or reverse 911 warning system(s)	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
ATL9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals in Parish, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Ongoing

ATL10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA HMGP, Local	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Atlanta Mitigation Action 4)
ATL11: Ordinances and Building Codes	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.	Parish and HMGP funding	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
ATL12: Zoning and Subdivision Regulations	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.	Parish and HMGP funding	1-5 years	Village of Atlanta Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Wildfires	Ongoing



## New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ATLANTA	
DESCRIPTION	
VILLAGE OF ATLANTA MITIGATION ACTION 1	Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures
LEAD AGENCY	Village of Atlanta Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

## Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ATLANTA	
DESCRIPTION	
VILLAGE OF ATLANTA MITIGATION ACTION 2	Safe Room Projects
LEAD AGENCY	Village of Atlanta Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Atlanta. 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, Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ATLANTA	
DESCRIPTION	
VILLAGE OF ATLANTA MITIGATION ACTION 3	Generators for continuity of operations and government
LEAD AGENCY	Village of Atlanta Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 2. Enhance public awareness and understanding of disaster preparedness and mitigation
PRIORITY	Medium
Action Description	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Installation of generators will allow public facilities to run accordingly and aid with local relief efforts
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ATLANTA	
DESCRIPTION	
VILLAGE OF ATLANTA MITIGATION ACTION 4	Promote Flood Insurance
LEAD AGENCY	Village of Atlanta Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness and mitigation</li> <li>3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities</li> <li>4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards</li> </ol>
PRIORITY	High
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	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, Tropical Cyclones

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ATLANTA	
DESCRIPTION	
VILLAGE OF ATLANTA MITIGATION ACTION 5	Water-Saving Measures
LEAD AGENCY	Village of Atlanta Mayor's Office
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Plans and Regulations, Natural System Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ATLANTA	
DESCRIPTION	
VILLAGE OF ATLANTA MITIGATION ACTION 6	Enhance Landscaping and Design Measures
LEAD AGENCY	Village of Atlanta Mayor's Office
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize drought-tolerant landscape which will reduce the dependence on irrigation practices, using permeable driveways and surfaces to reduce runoff and promote groundwater recharge, and provide incentives for the public that engages in these practices
Type of Mitigation Action	Natural Systems Protection
How Action Aligns with Risk Reduction	Enhancing landscape and design measures allows for drought events to be less severe.
Current Status of Action	New
Hazard Addressed	Drought

#### Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ATLANTA	
DESCRIPTION	
VILLAGE OF ATLANTA MITIGATION ACTION 7	Procure All-Weather/Hazard Emergency Alert Radios
LEAD AGENCY	Village of Atlanta Mayor's Office
SUPPORTING AGENCIES	Winn Parish Police Jury, Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 2. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Purchase weather radios for public, to be used for emergency notification.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Allows for redundant communications with citizens. Also provides citizens with method to access weather related information in the event of systems being down. Increases overall safety of the community.
Current Status of Action	New
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

## Village of Calvin Mitigation Actions

### Previous Action Update

Village of Calvin						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
CAL1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Calvin Mitigation Action 1)
CAL2: Drainage Improvements	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Ongoing
CAL3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Calvin Mitigation Action 2)
CAL4: Safe Room Projects	Construction of a safe room for first responders located in Calvin. Other locations will be identified based on funding availability.	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Calvin Mitigation Action 3)

CAL5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
CAL6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
CAL7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Thunderstorms	Not Started - Carried Over (See Village of Calvin Mitigation Action 4)
CAL8: Warning Systems	Update/upgrade public warning system components throughout Calvin as necessary. Install audible and/or reverse 911 warning system(s)	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Calvin Mitigation Action 5)
CAL9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals in Parish, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Ongoing

CAL10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA HMGP, Local	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Calvin Mitigation Action 6)
CAL11: Ordinances and Building Codes	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.	Parish and HMGP funding	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Calvin Mitigation Action 7)
CAL12: Zoning and Subdivision Regulations	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.	Parish and HMGP funding	1-5 years	Village of Calvin Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	Not Started - Carried Over (See Village of Calvin Mitigation Action 8)

## New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 2. Enhance public awareness and understanding of disaster preparedness and mitigation 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high wind events, and helps assure that the public buildings can be used, occupied and operable during or after storms.
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

## Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 2	Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 3	Safe Room Projects
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Calvin. 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 VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 4	Lightning Mitigation
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Thunderstorms

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 5	Warning Systems
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 2. Enhance public awareness and understanding of disaster preparedness and mitigation
PRIORITY	Medium
Action Description	Update/upgrade public warning system components throughout Calvin 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 CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 6	Promote Flood Insurance
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness and mitigation</li> <li>3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities</li> <li>4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards</li> </ol>
PRIORITY	High
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	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, Tropical Cyclones

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 7	Ordinances and Building Codes
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish and HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Enforcing new and revised building codes will allow for the opportunity of loss, to decrease
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 8	Zoning and Subdivision Regulations
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish and HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	New construction in the Urban Wildland subdivisions using fire resistant materials will be less subjugated to loss due to wildfires
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CALVIN	
DESCRIPTION	
VILLAGE OF CALVIN MITIGATION ACTION 9	Water-Saving Measures
LEAD AGENCY	Village of Calvin Mayor's Office
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Plans and Regulations, Natural System Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

## Village of Dodson Mitigation Actions

## Previous Action Update

Village of Dodson						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
DOD1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Dodson Mitigation Action 1)
DOD2: Drainage Improvements	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	In Progress
DOD3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Dodson Mitigation Action 2)
DOD4: Safe Room Projects	Construction of a safe room for first responders located in Dodson. Other locations will be identified based on funding availability.	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Dodson Mitigation Action 3)



DOD5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Dodson Mitigation Action 4)
DOD6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Dodson Mitigation Action 5)
DOD7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Thunderstorms	In Progress
DOD8: Warning Systems	Update/upgrade public warning system components throughout Dodson as necessary. Install audible and/or reverse 911 warning system(s)	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Dodson Mitigation Action 6)
DOD9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals in Parish, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	In Progress
DOD10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA HMGP, Local	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Dodson Mitigation Action 7)

DOD11: Ordinances and Building Codes	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.	Parish and HMGP funding	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Dodson Mitigation Action 8)
DOD12: Zoning and Subdivision Regulations	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.	Parish and HMGP funding	1-5 years	Village of Dodson Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	Not Started - Carried Over (See Village of Dodson Mitigation Action 9)

## New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 2. Enhance public awareness and understanding of disaster preparedness and mitigation 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high wind events, and helps assure that the public buildings can be used, occupied and operable during or after storms.
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

## Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 2	Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 3	Safe Room Projects
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Dodson. 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 VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 4	Education and Outreach
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	High
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, Wildfire and Winter Weather hazards as well as providing information on high risk areas
Type of Mitigation Action	Education and Outreach Projects
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started - Carried over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 5	Generators for continuity of operations and government
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 2. Enhance public awareness and understanding of disaster preparedness and mitigation
PRIORITY	Medium
Action Description	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Installation of generators will allow public facilities to run accordingly and aid with local relief efforts
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 6	Warning Systems
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 2. Enhance public awareness and understanding of disaster preparedness and mitigation
PRIORITY	Medium
Action Description	Update/upgrade public warning system components throughout Dodson 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 DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 7	Promote Flood Insurance
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness and mitigation</li> <li>3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities</li> <li>4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards</li> </ol>
PRIORITY	High
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	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, Tropical Cyclones

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 8	Zoning and Subdivision Regulations
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish and HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	New construction in the Urban Wildland subdivisions using fire resistant materials will be less subjugated to loss due to wildfires
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF DODSON	
DESCRIPTION	
VILLAGE OF DODSON MITIGATION ACTION 9	Water-Saving Measures
LEAD AGENCY	Village of Dodson Mayor's Office
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Plans and Regulations, Natural System Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

**Additional Supporting Information:**

## Village of Sikes Mitigation Actions

## Previous Action Update

Village of Sikes						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
SIK1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Sikes Mitigation Action 1)
SIK2: Drainage Improvements	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See Village of Sikes Mitigation Action 2)
SIK3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Sikes Mitigation Action 3)
SIK4: Safe Room Projects	Construction of a safe room for first responders located in Sikes. Other locations will be identified based on funding availability.	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Sikes Mitigation Action 4)

SIK5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Sikes Mitigation Action 5)
SIK6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
SIK7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Thunderstorms	Not Started - Carried Over (See Village of Sikes Mitigation Action 6)
SIK8: Warning Systems	Update/upgrade public warning system components throughout Sikes as necessary. Install audible and/or reverse 911 warning system(s)	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
SIK9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/ installation of backflow preventers at appropriate critical locations.	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	In Progress

SIK10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA HMGP, Local	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See Village of Sikes Mitigation Action 7)
SIK11: Ordinances and Building Codes	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.	Parish and HMGP funding	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See Village of Sikes Mitigation Action 8)
SIK12: Zoning and Subdivision Regulations	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.	Parish and HMGP funding	1-5 years	Village of Sikes Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Wildfires	Not Started - Carried Over (See Village of Sikes Mitigation Action 9)



## New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness and mitigation</li> <li>4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards</li> </ol>
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 events and helps assure that the public buildings can be used, occupied and operable during or after storms.
Current Status of Action	Not Started - Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

## Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation.
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 SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 3	Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started - Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Sikes. 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

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness and mitigation</li> <li>3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities</li> <li>4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards</li> </ol>
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 hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started - Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 6	Lightning Mitigation
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started - Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 7	Promote Flood Insurance
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness and mitigation</li> <li>3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities</li> <li>4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards</li> </ol>
PRIORITY	High
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	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, Tropical Cyclones

**Additional Supporting Information:**



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 8	Ordinances and Building Codes
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish and HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Enforcing new and revised building codes will allow for the opportunity of loss, to decrease
Current Status of Action	Not Started - Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 9	Zoning and Subdivision Regulations
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish and HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	New construction in the Urban Wildland subdivisions using fire resistant materials will be less subjugated to loss due to wildfires
Current Status of Action	Not Started - Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Wildfires

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF SIKES	
DESCRIPTION	
VILLAGE OF SIKES MITIGATION ACTION 10	Water-Saving Measures
LEAD AGENCY	Village of Sikes Mayor's Office
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Plans and Regulations, Natural System Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

## City of Winnfield Mitigation Actions

## Previous Action Update

City of Winnfield						
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Status
WF1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Winnfield Mitigation Action 1)
WF2: Drainage Improvements	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	Ongoing
WF3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Ongoing
WF4: Safe Room Projects	Construction of a safe room for first responders located in Winnfield. Other locations will be identified based on funding availability.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress

WF5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires and er Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
WF6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
WF7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Thunderstorms	Not Started - Carried Over (See City of Winnfield Mitigation Action 2)
WF8: Warning Systems	Update/upgrade public warning system components throughout Winnfield as necessary. Install audible and/or reverse 911 warning system(s)	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Flooding, Sinkholes, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
WF9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/ installation of backflow preventers at appropriate critical locations.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	In Progress

WF10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See City of Winnfield Mitigation Action 3)
WF11: Ordinances and Building Codes	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Winnfield Mitigation Action 4)
WF12: Zoning and Subdivision Regulations	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and, requiring new construction to exceed the wind load requirements of the 2006 IBC.	FEMA HMGP, Local	1-5 years	City of Winnfield Mayor's Office/ Winn Parish OHSEP	Drought, Flooding, Thunderstorms, Wildfires	Not Started - Carried Over (See City of Winnfield Mitigation Action 5)

## New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFIELD	
DESCRIPTION	
CITY OF WINNFIELD MITIGATION ACTION 1	Building Retrofits
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 2. Enhance public awareness and understanding of disaster preparedness and mitigation 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high winds events and helps assure that the public buildings can be used, occupied and operable during or after storms.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

## Additional Supporting Information:



IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFIELD	
DESCRIPTION	
CITY OF WINNFIELD MITIGATION ACTION 2	Lightning Mitigation
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFIELD	
DESCRIPTION	
CITY OF WINNFIELD MITIGATION ACTION 3	Promote Flood Insurance
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	<ol style="list-style-type: none"> <li>1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards</li> <li>2. Enhance public awareness and understanding of disaster preparedness and mitigation</li> <li>3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities</li> <li>4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards</li> </ol>
PRIORITY	High
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	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, Tropical Cyclones

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFIELD	
DESCRIPTION	
CITY OF WINNFIELD MITIGATION ACTION 4	Ordinances and Building Codes
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish and HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	As a Mitigation Measure, ordinances and building Codes are targeted for Ongoing improvements by incorporating the improved assessment of flood and wildfire risks produced during this plan's update. Objectives include, but are not limited to, improving the floodplain management ordinance and/or the fire permitting process.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Enforcing new and revised building codes will allow for the opportunity of loss, to decrease
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFIELD	
DESCRIPTION	
CITY OF WINNFIELD MITIGATION ACTION 5	Zoning and Subdivision Regulations
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish and HMGP funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages to assets and risk to population from natural hazards 3. Promote economic stability through the reduction of natural hazard impacts in the parish and municipalities 4. Facilitate sound development in the parish and municipalities through integration of mitigation practices that reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Objectives include, but are not limited to, requiring new construction in subdivisions located in the Urban Wildland Interface to utilize fire resistant building materials and landscape designs, and water conservation technologies; and requiring new construction to exceed the wind load requirements of the 2006 IBC.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	New construction in the Urban Wildland subdivisions using fire resistant materials will be less subjugated to loss due to wildfires
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Wildfires

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFIELD	
DESCRIPTION	
CITY OF WINNFIELD MITIGATION ACTION 6	Regulate Development in Sinkhole Buffer Areas
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 2. Enhance public awareness and understanding of disaster preparedness 4. Facilitate sound development in the Parish and municipalities to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Regulations would include prohibiting development in areas that have been identified as "at risk" or restricting development in areas with close proximities to salt domes
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Regulating development where sinkhole hazards are present, will prevent property loss.
Current Status of Action	New
Hazard Addressed	Sinkholes

**Additional Supporting Information:**

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFIELD	
DESCRIPTION	
CITY OF WINNFIELD MITIGATION ACTION 7	Inventory all water wells in the vicinity of the sinkholes to encourage abandonment.
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA, HGMP, Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 2. Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Inventory all water wells in the vicinity of the sinkhole to encourage abandonment.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Risk of sinkholes reduced
Current Status of Action	New
Hazard Addressed	Sinkholes

#### Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF WINNFELD	
DESCRIPTION	
CITY OF WINNFELD MITIGATION ACTION 8	Water-Saving Measures
LEAD AGENCY	City of Winnfield Mayor's Office
SUPPORTING AGENCIES	Winn Parish Police Jury
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Plans and Regulations, Natural System Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

#### Additional Supporting Information:

### Action Prioritization

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

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

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

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



## Appendix A: Planning Process

### Purpose

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

### The Winn Parish Hazard Mitigation Plan Update

The Winn Parish Hazard Mitigation Plan Update process began in June 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
6/8/2022	Kick Off Meeting	Phone Conference	No	Discuss with the Parish OHSEP Director expectations and requirements of the project. Discuss meeting schedules, committee make up, and next steps.
10/19/2022	Initial Planning Committee Meeting	Winnfield, LA	No	Discuss with Winn Parish Hazard Mitigation Planning Committee the process and expectations of plan participants. Discuss timeline and action items for parish and each jurisdiction.
1/11/2023	Mitigation Action Workshop	Winnfield, LA	No	Discussion with Winn 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.
2/13/2023	Planning Committee Risk Assessment Review	Winnfield, LA	Yes	Presentation of Risk Assessment and profiled hazards to Planning Committee.
2/13/2023	Public Meeting	Winnfield, LA	Yes	Presentation of Risk Assessment s and profiled hazards to public. Presentation also includes current mitigation project highlights within communities and public survey discussion.
10/24/2022 – 2/16/2023	Public Opinion Survey	Online	Yes	This survey asked participants about public perceptions and opinions regarding natural hazards in Winn Parish. In addition, questions covered the methods and techniques preferred for reducing the risks and losses associated with these hazards. Survey Results can be found at this link: <a href="https://www.surveymonkey.com/results/SM-uNEWaRm7P6EqzK_2F2UwebHQ_3D_3D/">https://www.surveymonkey.com/results/SM-uNEWaRm7P6EqzK_2F2UwebHQ_3D_3D/</a>

## Planning

The plan update process consisted of several phases:

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

## Coordination

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

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

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

## Neighboring Community, Local and Regional Planning Process Involvement

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

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

- Participation in Hazard Mitigation planning meetings at the local and parish level
- Community Rating System Meetings and coordination
- 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 Caldwell Parish OHSEP Director was invited to attend the Initial Planning and Risk Assessment Meetings for Winn Parish in an effort to coordinate mitigation efforts where possible as neighboring communities. The Caldwell Parish OHSEP Director was invited via email and phone call to participate in an effort to collaborate with neighboring communities. SDMI assisted Winn Parish with encouraging the collaboration with these neighboring communities via email by extending an invitation to the Winn Parish Hazard Mitigation Plan Update meetings.

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

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

Winn Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Cranford Jordan	Sheriff/OHSEP Director	Winn Parish Sheriff's Office/OHSEP	<a href="mailto:sheriff@winnsheriff.org">sheriff@winnsheriff.org</a>
Cindy Tilton	Administrative Assistant	Winn Parish OHSEP	<a href="mailto:winnohsep@winncounty.org">winnohsep@winncounty.org</a>
Joshua McAlister	President	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Karen Tyler	Secretary/Treasurer	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Janet Finklea	Mayor	Village of Atlanta	<a href="mailto:jrbf@nexusla.net">jrbf@nexusla.net</a>
Jeff Canerday	Mayor	Village of Calvin	<a href="mailto:canerdayjeff@yahoo.com">canerdayjeff@yahoo.com</a>
Richie Broomfield	Mayor	Village of Dodson	<a href="mailto:villageofdodson@yahoo.com">villageofdodson@yahoo.com</a>
Sheryl McDaniel	Mayor	Village of Sikes	<a href="mailto:sherylmcdaniel1970@gmail.com">sherylmcdaniel1970@gmail.com</a>
Gerald Hamms	Mayor	City of Winnfield	<a href="mailto:mayor1@cityofwinnfield.com">mayor1@cityofwinnfield.com</a>
Freddy Mercer	OEP Director	Caldwell Parish	<a href="mailto:caldwellohsep@bellsouth.net">caldwellohsep@bellsouth.net</a>

### 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 Winn Parish programs and planning.

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

Winn 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 Winn 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
- Flood Insurance Rate Maps
- State of Louisiana Hazard Mitigation Plan

Further information on the plans can be found in [Section 3: Capability Assessment](#).

### Meeting Documentation and Public Outreach Activities

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

#### Meeting #1: Hazard Mitigation Plan Update Kick-Off

**Date:** June 8, 2022

**Location:** Conference Call

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

**Public Invitation:** No

**Meeting Attendees:**

Winn Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Cranford Jordan	Sheriff/OHSEP Director	Winn Parish Sheriff's Office/OHSEP	<a href="mailto:sheriff@winnsheff.org">sheriff@winnsheff.org</a>
Cindy Tilton	Administrative Assistant	Winn Parish OHSEP	<a href="mailto:winnohsep@winnparrish.org">winnohsep@winnparrish.org</a>
Chris Rippetoe	Hazard Mitigation Program Manager	LSU-SDMI	<a href="mailto:crippe2@lsu.edu">crippe2@lsu.edu</a>

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

**Date:** October 19, 2022

**Location:** Winnfield, LA

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

**Public Invitation:** No

**Meeting Invitees:**

Winn Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Cranford Jordan	Sheriff/OHSEP Director	Winn Parish Sheriff's Office/OHSEP	<a href="mailto:sheriff@winnsheff.org">sheriff@winnsheff.org</a>
Cindy Tilton	Administrative Assistant	Winn Parish OHSEP	<a href="mailto:winnohsep@winnparrish.org">winnohsep@winnparrish.org</a>
Joshua McAlister	President	Winn Parish Police Jury	<a href="mailto:pj1admin@wppi.net">pj1admin@wppi.net</a>
Karen Tyler	Secretary/Treasurer	Winn Parish Police Jury	<a href="mailto:pj1admin@wppi.net">pj1admin@wppi.net</a>
Janet Finklea	Mayor	Village of Atlanta	<a href="mailto:jrbf@nexusla.net">jrbf@nexusla.net</a>
Jeff Canerday	Mayor	Village of Calvin	<a href="mailto:canerdayjeff@yahoo.com">canerdayjeff@yahoo.com</a>
Richie Broomfield	Mayor	Village of Dodson	<a href="mailto:villageofdodson@yahoo.com">villageofdodson@yahoo.com</a>
Sheryl McDaniel	Mayor	Village of Sikes	<a href="mailto:sherylmcdaniel1970@gmail.com">sherylmcdaniel1970@gmail.com</a>
Gerald Hamms	Mayor	City of Winnfield	<a href="mailto:mayor1@cityofwinnfield.com">mayor1@cityofwinnfield.com</a>
Freddy Mercer	OEP Director	Caldwell Parish	<a href="mailto:caldwellohsep@bellsouth.net">caldwellohsep@bellsouth.net</a>

### Meeting #3: Hazard Mitigation Plan Update Mitigation Action Workshop

**Date:** January 11, 2023

**Location:** Winnfield, LA

**Purpose:** Discussion with Winn 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:**

Winn Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Cranford Jordan	Sheriff/OHSEP Director	Winn Parish Sheriff's Office/OHSEP	<a href="mailto:sheriff@winnsheff.org">sheriff@winnsheff.org</a>
Cindy Tilton	Administrative Assistant	Winn Parish OHSEP	<a href="mailto:winnohsep@winnparrish.org">winnohsep@winnparrish.org</a>
Joshua McAlister	President	Winn Parish Police Jury	<a href="mailto:pj1admin@wppi.net">pj1admin@wppi.net</a>
Karen Tyler	Secretary/Treasurer	Winn Parish Police Jury	<a href="mailto:pj1admin@wppi.net">pj1admin@wppi.net</a>
Janet Finklea	Mayor	Village of Atlanta	<a href="mailto:jrbf@nexusla.net">jrbf@nexusla.net</a>
Jeff Canerday	Mayor	Village of Calvin	<a href="mailto:canerdayjeff@yahoo.com">canerdayjeff@yahoo.com</a>
Richie Broomfield	Mayor	Village of Dodson	<a href="mailto:villageofdodson@yahoo.com">villageofdodson@yahoo.com</a>
Sheryl McDaniel	Mayor	Village of Sikes	<a href="mailto:sherylmcdaniel1970@gmail.com">sherylmcdaniel1970@gmail.com</a>
Gerald Hamms	Mayor	City of Winnfield	<a href="mailto:mayor1@cityofwinnfield.com">mayor1@cityofwinnfield.com</a>
Freddy Mercer	OEP Director	Caldwell Parish	<a href="mailto:caldwellohsep@bellsouth.net">caldwellohsep@bellsouth.net</a>

**Meeting #4: Hazard Mitigation Plan Update Planning Committee Risk Assessment Review****Date:** February 13, 2023**Location:** Winnfield, LA**Purpose:** Presentation of Risk Assessment hazards and maps to Planning Committee.**Public Invitation:** No**Meeting Invitees:**

Winn Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Cranford Jordan	Sheriff/OHSEP Director	Winn Parish Sheriff's Office/OHSEP	<a href="mailto:sheriff@winnsheriff.org">sheriff@winnsheriff.org</a>
Cindy Tilton	Administrative Assistant	Winn Parish OHSEP	<a href="mailto:winnohsep@winnparish.org">winnohsep@winnparish.org</a>
Joshua McAlister	President	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Karen Tyler	Secretary/Treasurer	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Janet Finklea	Mayor	Village of Atlanta	<a href="mailto:jrbf@nexusla.net">jrbf@nexusla.net</a>
Jeff Canerday	Mayor	Village of Calvin	<a href="mailto:canerdayjeff@yahoo.com">canerdayjeff@yahoo.com</a>
Richie Broomfield	Mayor	Village of Dodson	<a href="mailto:villageofdodson@yahoo.com">villageofdodson@yahoo.com</a>
Sheryl McDaniel	Mayor	Village of Sikes	<a href="mailto:sherylmcdaniel1970@gmail.com">sherylmcdaniel1970@gmail.com</a>
Gerald Hamms	Mayor	City of Winnfield	<a href="mailto:mayor1@cityofwinnfield.com">mayor1@cityofwinnfield.com</a>
Freddy Mercer	OEP Director	Caldwell Parish	<a href="mailto:caldwellohsep@bellsouth.net">caldwellohsep@bellsouth.net</a>

**Meeting #5: Hazard Mitigation Plan Update Public Meeting****Date:** February 13, 2023**Location:** Winnfield, LA**Purpose:** The Public Meeting allowed the public and community stakeholders to participate and provide input into the hazard mitigation planning process. Presentation also included highlights of current mitigation projects highlights, as well as public survey discussion.**Public Invitation:** Yes**Meeting Invitees:**

Winn Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Cranford Jordan	Sheriff/OHSEP Director	Winn Parish Sheriff's Office/OHSEP	<a href="mailto:sheriff@winnsheriff.org">sheriff@winnsheriff.org</a>
Cindy Tilton	Administrative Assistant	Winn Parish OHSEP	<a href="mailto:winnohsep@winnparish.org">winnohsep@winnparish.org</a>
Joshua McAlister	President	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Karen Tyler	Secretary/Treasurer	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Janet Finklea	Mayor	Village of Atlanta	<a href="mailto:jrbf@nexusla.net">jrbf@nexusla.net</a>
Jeff Canerday	Mayor	Village of Calvin	<a href="mailto:canerdayjeff@yahoo.com">canerdayjeff@yahoo.com</a>
Richie Broomfield	Mayor	Village of Dodson	<a href="mailto:villageofdodson@yahoo.com">villageofdodson@yahoo.com</a>
Sheryl McDaniel	Mayor	Village of Sikes	<a href="mailto:sherylmcdaniel1970@gmail.com">sherylmcdaniel1970@gmail.com</a>
Gerald Hamms	Mayor	City of Winnfield	<a href="mailto:mayor1@cityofwinnfield.com">mayor1@cityofwinnfield.com</a>
Freddy Mercer	OEP Director	Caldwell Parish	<a href="mailto:caldwellohsep@bellsouth.net">caldwellohsep@bellsouth.net</a>

**Meeting Announcement:****WINN PARISH OFFICE OF HOMELAND SECURITY & EMERGENCY PREPAREDNESS****PUBLIC MEETING ANNOUNCEMENT****Winn Parish and its partners are seeking community input for the  
2023 Winn Parish Hazard Mitigation Plan update!**

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

Are you passionate about building a more resilient future for your parish? Do you have questions about the natural hazards your community is at risk to? Please join us on Monday February 13<sup>th</sup>, for a public meeting at 2:00 PM to learn more about the plan and share your input on the risks and vulnerabilities that most impact you and your community.

**Meeting Location:**

Winn Parish Library  
200 N. Saint John St.  
Winnfield, LA 71483

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

<https://www.surveymonkey.com/r/WinnHM2022>

The Parish appreciates your input.

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

### Outreach Activity #1: Public Opinion Survey

**Date:** Ongoing throughout planning process

**Location:** Web survey

**Public Invitation:** Yes

As referenced in the *Mitigation Strategy* section of this document, an online public opinion survey of Winn Parish residents was conducted between October 2022 and February 2023. The survey was designed to capture public perceptions and opinions regarding natural hazards in Winn 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 February 16, 2023, there has been one response to the Winn Parish Hazard Mitigation Public Opinion Survey. Full survey results can be found here:

[https://www.surveymonkey.com/results/SM-uNEWaRm7P6EqzK\\_2F2UwebHQ\\_3D\\_3D/](https://www.surveymonkey.com/results/SM-uNEWaRm7P6EqzK_2F2UwebHQ_3D_3D/)

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

**Date:** February 13, 2023

**Location:** Public Meeting

**Public Invitation:** Yes

An incident/issue questionnaire was provided at the public meeting in an effort to collect additional information from residents of Winn 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 Winn Parish Hazard Mitigation Plan Public Review

**Date:** Ongoing

**Location:** SDMI Hazard Mitigation Website

**Public Initiation:** Yes

After an initial review by the Winn Parish Planning Committee was completed, the 2023 Winn 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/winn>



## WINN PARISH PUBLIC MEETING

### PUBLIC ACTIVITY: INCIDENT/ISSUE QUESTIONNAIRE

#### 1. HAZARD TYPE(S):

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

#### F. OTHER:

#### 2. DESCRIBE INCIDENT OR ISSUE:

#### 3. LOCATION:

A. CITY:

B. ADDRESS OR AREA:

C. LOCALIZED OR DISPERSED:

#### 4. INTENSITY:

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

B. WIND STRENGTH

#### 5. RE-OCCURRING OR ONE- TIME

A. IF RE-OCCURRING, HOW OFTEN?

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

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

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

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## Appendix B: Plan Maintenance

### Purpose

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

### Monitoring, Evaluating, and Updating the Plan

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

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

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

### Methods for Monitoring and Evaluating the Plan and Plan Evaluation Criteria

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

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

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

- 1) Whether the action was implemented and reasons, if the action was not implemented
- 2) What were the results of the implemented action
- 3) Were the outcomes as expected, and reasons if the outcomes were not as expected
- 4) Did the results achieve the stated goals and objectives
- 5) Was the action cost-effective
- 6) What were the losses avoided after completion of the project
- 7) In case of a structural project, did it change the hazard profile

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

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

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

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

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

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

### 2023 Plan Version Plan Method and Schedule Evaluation

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

### Incorporation into Existing Planning Programs

It is and has been the responsibility of the Winn Parish Hazard Mitigation Plan Planning Committee and participating jurisdictions to determine additional implementation procedures when appropriate. This may include integrating the requirements of the Winn 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

Opportunities to integrate the requirements of this plan into other local planning mechanisms will continue to be identified through future meetings of the Winn Parish Hazard Mitigation Planning Committee and through the five-year review process described herein. The primary means for integrating mitigation strategies into other local planning mechanisms will be through the revision, update and implementation of each jurisdiction's individual plans that require specific planning and administrative tasks (e.g. risk assessment, plan amendments, ordinance revisions, capital improvement projects, etc.). While there have been no instances of the mitigation strategy being incorporated into other planning documents since the adoption of the 2016 Winn 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 Livingston Hazard Mitigation Plan into other planning documents when appropriate.

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

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

On behalf of the Village of Atlanta, Village of Calvin, Village of Dodson, Village of Sikes, and City of Winnfield, Winn Parish has the authority to incorporate the contents of the Hazard Mitigation Plan into the parish's existing regulatory mechanisms. Agreements are currently in place with jurisdictions to allow for the parish incorporation mechanisms to take place.

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

Winn Parish			
<i>Comprehensive Master Plan</i>	Updated as needed	Winn Parish Police Jury	✓
<i>Capital Improvements Plan</i>	Updated as needed	Winn Parish Police Jury	✓
<i>Economic Development Plan</i>	Updated as needed	Winn Parish Economic Development District	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Winn Parish OHSEP	✓
<i>Continuity of Operations Plan</i>	Updated as needed	Winn Parish OHSEP	✓
Village of Atlanta			
<i>Comprehensive Master Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Atlanta	✓
<i>Capital Improvements Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Atlanta	✓
<i>Economic Development Plan</i>	Updated as needed	Winn Parish Economic Development District	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Winn Parish OHSEP and Mayor of Atlanta	✓

### Village of Calvin

<i>Comprehensive Master Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Calvin	✓
<i>Capital Improvements Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Calvin	✓
<i>Economic Development Plan</i>	Updated as needed	Winn Parish Economic Development District	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Winn Parish OHSEP and Mayor of Calvin	✓

### Village of Dodson

<i>Comprehensive Master Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Dodson	✓
<i>Capital Improvements Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Dodson	✓
<i>Economic Development Plan</i>	Updated as needed	Winn Parish Economic Development District	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Winn Parish OHSEP and Mayor of Dodson	✓

### Village of Sikes

<i>Comprehensive Master Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Sikes	✓
<i>Capital Improvements Plan</i>	Updated as needed	Winn Parish Police Jury and Mayor of Sikes	✓
<i>Economic Development Plan</i>	Updated as needed	Winn Parish Economic Development District	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Winn Parish OHSEP and Mayor of Sikes	✓

### City of Winnfield

\*\*\*There are no additional plans to be integrated for the City of Winnfield\*\*\*

### 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 Winn Parish Planning Area

Winn Parish Planning Area Critical Facilities									
Type	Name	Drought	Flooding	Sinkholes	Thunderstorms	Tornadoes	Tropical Cyclones	Wildfires	Winter Weather
Government Facilities	Winn Parish Courthouse	X			X	X	X		X
	Atlanta Village Hall	X			X	X	X	X	X
	Village Office of Calvin	X			X	X	X		X
	Dodson Town Hall	X			X	X	X	X	X
	Sikes Village Hall	X			X	X	X	X	X
	Winnfield City Hall	X			X	X	X	X	X
	City of Winnfield Court Building	X			X	X	X		X
Fire & SAR	St. Maurice Fire Station	X			X	X	X	X	X
	Winn Parish Fire District 3 Ward 2	X			X	X	X		X
	Winn Parish Fire District 3 - Brewton Mill Station	X			X	X	X		X
	Winn Parish Fire District 3 - Wheeling Station	X			X	X	X		X
	Winn Parish Fire District 3 - Atlanta Station	X			X	X	X	X	X
	Winn Parish Fire District 3 - Calvin Station	X			X	X	X	X	X
	Winn Parish Fire District 3 - Cypress Creek Station	X			X	X	X		X
	Winn Parish Fire District 3 - Shady Grove Station	X			X	X	X		X
	Winn Parish Fire District 3 - Sikes Station	X			X	X	X		X
	Winn Parish Fire District 3 - Joyce Station	X			X	X	X		X
	Winn Parish Fire District 3 - Saline Lake Station	X			X	X	X	X	X
	Winnfield Central Fire Station	X			X	X	X		X

<b>Law Enforcement</b>	Winn Parish Sheriff's Office	X			X	X	X		X
	Dodson Police Department	X			X	X	X	X	X
	Winnfield Police Department	X			X	X	X		X
	Winn Parish Correctional Center	X			X	X	X		X
<b>Public Health</b>	Winn Parish Health Unit	X			X	X	X		X
	Winn Parish Medical Center	X			X	X	X		X
	Winn Community Health Center	X			X	X	X	X	X
<b>Education</b>	Atlanta High School (PreK-12th)	X			X	X	X	X	X
	Calvin High School (PreK-12th)	X			X	X	X	X	X
	Dodson High School (PreK-12th)	X			X	X	X		X
	Winnfield Primary School (1st-4th)	X			X	X	X		X
	Winnfield Middle School (5th-8th)	X			X	X	X	X	X
	Winnfield Senior High (9th-12th)	X			X	X	X		X
	Winn Parish Library - Atlanta	X			X	X	X	X	X
	Winn Parish Library - Calvin	X			X	X	X	X	X
	Winn Parish Library - Dodson	X			X	X	X		X
	Winn Parish Library - Sikes	X			X	X	X	X	X
	Winn Parish Library - Winnfield	X			X	X	X	X	X

## Appendix D: Plan Adoption

## Winn Parish

  
**State of Louisiana**  
Parish of Winn  
In the Name and By the Authority of The Police  
Jury of Winn Parish

On motion by Mr. Author Robinson and second by Mr. Kirk Miles, the Winn Parish Police Jury adopted the following Resolution.

**RESOLUTION #007 of 2023**

**WHEREAS**, the Winn Parish Police Jury recognizes the threat that natural hazards pose to people and property within Winn Parish; and

**WHEREAS**, the Parish of Winn has prepared a multi-hazard mitigation plan, hereby known as 2023 Winn Parish Jurisdiction Hazard Mitigation Plan on February 28, 2023 in accordance with the Disaster Mitigation Act of 2000; and

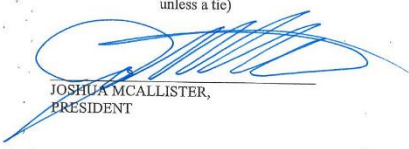
**WHEREAS**, the 2023 Winn Parish Jurisdiction Hazard Mitigation Plan on February 28, 2023 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Winn Parish from the impacts of future hazards and disasters; and

**WHEREAS**, adoption by the Winn Parish Police Jury demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2023 Winn Parish Jurisdiction Hazard Mitigation Plan on February 28, 2023


**THEREFORE BE IT RESOLVED THAT**, the Winn Parish Police Jury adopts the 2023 Winn Parish Jurisdiction Hazard Mitigation Plan on February 28, 2023.

**THIS RESOLUTION** was adopted on this the 17<sup>th</sup> day of April 2023 with the vote recorded as follows:

Yeas: 4      Nays: 0      Absent: 2      Abstained: 1 (president does not vote unless a tie)

  
JOSHUA MCALLISTER,  
PRESIDENT

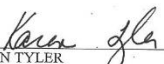
**ATTEST:**

  
KAREN TYLER  
SECRETARY/TREASURER

I, Karen Tyler, Secretary/Treasurer of the Winn Parish Police Jury, do hereby certify that the above and foregoing is true and correct copy of a resolution adopted by the Winn Parish Police Jury, meeting in regular session on Monday, April 17, 2023 at which meeting a quorum was present and voting.

GIVEN UNDER MY OFFICIAL SIGNATURE AND SEAL of office, on this 17 Day of April, 2023.

SEAL

  
KAREN TYLER  
SECRETARY/TREASURER

## Village of Atlanta

VILLAGE OF ATLANTA

LOUISIANA

RESOLUTION NO. 5

A RESOLUTION OF THE VILLAGE OF ATLANTA

WINN PARISH HAZARD MITIGATION PLAN 2023

WHEREAS the VILLAGE OF ATLANTA TOWN COUNCIL recognize the threat that natural hazards pose to people and property within the VILLAGE OF ATLANTA; and

WHEREAS the VILLAGE OF ATLANTA has prepared a multi-hazard mitigation plan, hereby known as the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023, identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the VILLAGE OF ATLANTA from the impacts of future hazards and disasters; and

WHEREAS adoption by the VILLAGE OF ATLANTA TOWN COUNCIL demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023.

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

Section 1. In accordance with the LAWRASON ACT, THE VILLAGE OF ATLANTA adopts the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023.

ADOPTED by a vote of <sup>(2)</sup>two in favor and <sup>(zero)</sup>0 against, and <sup>1</sup>major abstaining, this 11<sup>th</sup> day of May, 2023

By: Janet Finklea  
(Janet Finklea, Mayor)

ATTEST:

By: Janet G. Carey  
( )

## Village of Calvin

VILLAGE OF CALVIN

LOUISIANA

RESOLUTION NO. 007-2023

A RESOLUTION OF THE VILLAGE OF CALVIN

WINN PARISH HAZARD MITIGATION PLAN 2023

WHEREAS the VILLAGE OF CALVIN TOWN COUNCIL recognizes the threat that natural hazards pose to people and property within VILLAGE OF CALVIN; and

WHEREAS the VILLAGE OF CALVIN has prepared a multi-hazard mitigation plan, hereby known as WINN PARISH HAZARD MITIGATION PLAN 2023 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS 2023 HAZARD MITIGATION PLAN identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in VILLAGE OF CALVIN from the impacts of future hazards and disasters; and

WHEREAS adoption by the VILLAGE OF CALVIN TOWN COUNCIL demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the WINN PARISH HAZARD MITIGATION PLAN 2023  
NOW THEREFORE, BE IT RESOLVED BY THE VILLAGE OF CALVIN, LOUISIANA, THAT:

Section 1. In accordance with LAWRASON, THE VILLAGE OF CALVIN adopts the WINN PARISH HAZARD MITIGATION PLAN 2023.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, this 17<sup>th</sup> day of April, 2023.

By: Jeff Cawerday  
(print name)

ATTEST:  
By: Emily Garrett  
(print name)

APPROVED AS TO FORM:  
By: Jeff Cawerday Mayor  
(print name)

## Village of Dodson

VILLAGE OF DODSON

LOUISIANA

A RESOLUTION OF VILLAGE OF

HAZARD MITIGATION PLAN APRIL 4, 2023

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

WHEREAS the Village of Dodson has prepared a multi-hazard mitigation plan, hereby known as HAZARD MITIGATION PLAN APRIL 4, 2023 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS HAZARD MITIGATION PLAN APRIL 4, 2023 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Village of Dodson from the impacts of future hazards and disasters; and

WHEREAS adoption by the Village of Dodson Town Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the HAZARD MITIGATION PLAN APRIL 4, 2023.

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


Section 1. In accordance with the Lawrason Act, The Village of Dodson Town Council adopts the HAZARD MITIGATION PLAN APRIL 4, 2023.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, this 4<sup>th</sup> day of April, 2023.

By: 

Richie Broomfield, Mayor

ATTEST:

By: 

Jessica Frieu, Clerk



## Village of Sikes

VILLAGE OF SIKES

LOUISIANA

RESOLUTION NO. 2023-3

A RESOLUTION OF THE VILLAGE OF SIKES

WINN PARISH HAZARD MITIGATION PLAN 2023

WHEREAS the VILLAGE OF SIKES TOWN COUNCIL recognize the threat that natural hazards pose to people and property within the VILLAGE OF SIKES; and

WHEREAS the VILLAGE OF SIKES has prepared a multi-hazard mitigation plan, hereby known as the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023, identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the VILLAGE OF SIKES from the impacts of future hazards and disasters; and

WHEREAS adoption by the VILLAGE OF SIKES TOWN COUNCIL demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023.

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

Section 1. In accordance with the LAWRASON ACT, THE VILLAGE OF SIKES adopts the 2023 Winn Parish Multi-Jurisdictional Hazard Mitigation Plan dated February 28, 2023.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, this 16th day of May, 2023.

By: Sheryl McDaniel

(Sheryl McDaniel, Mayor)

ATTEST:

By: Becky Shell  
( Clerk )

## City of Winnfield

City of Winnfield

LOUISIANA

RESOLUTION NO. 3

A RESOLUTION OF THE CITY OF WINNFIELD

WINN PARISH HAZARDS MITIGATION PLAN 2023

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

WHEREAS the City of Winnfield has prepared a multi-hazard mitigation plan, hereby known as Winn Parish Hazards Mitigation Plan 2023 in accordance with the Disaster Mitigation Act of 2000; and

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

WHEREAS adoption by the City of Winnfield demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Winn Parish Hazards Mitigation Plan 2023.

NOW THEREFORE, BE IT RESOLVED BY THE City of Winnfield LOUISIANA, THAT:

Section 1. In accordance with the Lawrason Act the City of Winnfield adopts the Winn Parish Hazards Mitigation Plan 2023.

ADOPTED by a vote of 4 in favor and \_\_\_\_\_ against, and \_\_\_\_\_ abstaining, this 11th day of April, 2023.

By:  \_\_\_\_\_

Mayor Gerald Hamms

ATTEST:

By:  \_\_\_\_\_

Katina Smith  
City 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

Winn Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Cranford Jordan	Sheriff/OHSEP Director	Winn Parish Sheriff's Office/OHSEP	<a href="mailto:sheriff@winnsheriff.org">sheriff@winnsheriff.org</a>
Cindy Tilton	Administrative Assistant	Winn Parish OHSEP	<a href="mailto:winnohsep@winnparrish.org">winnohsep@winnparrish.org</a>
Joshua McAlister	President	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Karen Tyler	Secretary/Treasurer	Winn Parish Police Jury	<a href="mailto:pj1admin@wppj.net">pj1admin@wppj.net</a>
Janet Finklea	Mayor	Village of Atlanta	<a href="mailto:jrbf@nexusla.net">jrbf@nexusla.net</a>
Jeff Canerday	Mayor	Village of Calvin	<a href="mailto:canerdayjeff@yahoo.com">canerdayjeff@yahoo.com</a>
Richie Broomfield	Mayor	Village of Dodson	<a href="mailto:villageofdodson@yahoo.com">villageofdodson@yahoo.com</a>
Sheryl McDaniel	Mayor	Village of Sikes	<a href="mailto:sherylmcdaniel1970@gmail.com">sherylmcdaniel1970@gmail.com</a>
Gerald Hamms	Mayor	City of Winnfield	<a href="mailto:mayor1@cityofwinnfield.com">mayor1@cityofwinnfield.com</a>
Freddy Mercer	OEP Director	Caldwell Parish	<a href="mailto:caldwellohsep@bellsouth.net">caldwellohsep@bellsouth.net</a>

## Capability Assessment

### Unincorporated Winn Parish

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

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	Yes	
Grant Writer	No	
Other	No	
Technical	Yes/No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
Hazard Data & Information	Yes	
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	Electrical permits
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	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

## Village of Atlanta

Capability Assessment Worksheet - Atlanta		
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	Covered under Parish plan
Capital Improvements Plan	Yes	Covered under Parish
Economic Development Plan	Yes	Covered under Parish
Local Emergency Operations Plan	Yes	Covered under Parish
Continuity of Operations Plan	No	
Transportation Plan	No	No public transportation
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes/No	Comments
Building Code	Yes	Covered under Parish
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	No	Fire District #3
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes/No	Comments
Zoning Ordinance	No	
Subdivision Ordinance	No	
Floodplain Ordinance	Yes	Covered under Parish
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	Yes	Covered under Parish
Acquisition of land for open space and public recreation uses	No	
Other	No	

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	Yes/No	Comments
Planning Commission	Yes	Covered under Parish plan
Mitigation Planning Committee	Yes	Covered under Parish
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Covered under Parish
Staff	Yes/No	Comments
Chief Building Official	Yes	Covered under Parish
Floodplain Administrator	Yes	Covered under Parish
Emergency Manager	Yes	Covered under Parish
Community Planner	No	
Civil Engineer	Yes	Covered under Parish
GIS Coordinator	Yes	Covered under Parish
Grant Writer	No	
Other	No	
Technical	Yes/No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Covered under Parish
Hazard Data & Information	Yes	Covered under Parish
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	Under Parish
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.	Yes	Parish-wide
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

## Village of Calvin

Capability Assessment Worksheet - Calvin		
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	Covered under Parish Plan
Capital Improvements Plan	Yes	Covered under Parish Plan
Economic Development Plan	Yes	Covered under Parish Plan
Local Emergency Operations Plan	Yes	Covered under Parish Plan
Continuity of Operations Plan	No	
Transportation Plan	No	No Public Transportation
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes/No	Comments
Building Code	Yes	Covered under Parish
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	Fire District #3
Site plan review requirements	Yes	
Land Use Planning and Ordinances	Yes/No	Comments
Zoning Ordinance	No	
Subdivision Ordinance	No	
Floodplain Ordinance	Yes	Covered under Parish
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	Yes	Covered under Parish
Acquisition of land for open space and public recreation uses	No	
Other	N/A	



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	Covered under Parish
Mitigation Planning Committee	Yes	Covered under Parish
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Covered under Parish
Staff	Yes/No	Comments
Chief Building Official	Yes	Covered under Parish
Floodplain Administrator	Yes	Covered under Parish
Emergency Manager	Yes	Covered under Parish
Community Planner	No	
Civil Engineer	Yes	Covered under Parish
GIS Coordinator	Yes	Covered under Parish
Grant Writer	No	
Other	N/A	
Technical	Yes/No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Covered under Parish
Hazard Data & Information	Yes	Covered under Parish
Grant Writing	No	
Hazus Analysis	No	
Other	N/A	

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	Yes/No	Comments
Capital Improvements project funding	Yes	Under Parish
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.	Yes	Parishwide
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	N/A	
Other	N/A	

## Village of Dodson

Capability Assessment Worksheet - Dodson		
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	Covered under Parish Plan
Capital Improvements Plan	Yes	Covered under Parish Plan
Economic Development Plan	Yes	Covered under Parish Plan
Local Emergency Operations Plan	Yes	Covered under Parish Plan
Continuity of Operations Plan	No	
Transportation Plan	No	No public transportation
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes/No	Comments
Building Code	Yes	Covered under Parish
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	Fire District 3
Site plan review requirements	Yes	
Land Use Planning and Ordinances	Yes/No	Comments
Zoning Ordinance	No	
Subdivision Ordinance	No	
Floodplain Ordinance	Yes	Covered under Parish Plan
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	Yes	Covered under Parish Plan
Acquisition of land for open space and public recreation uses	No	
Other	N/A	

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	Covered under Parish
Mitigation Planning Committee	Yes	Covered under Parish
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Covered under Parish
Staff	Yes/No	Comments
Chief Building Official	Yes	Covered under Parish
Floodplain Administrator	Yes	Covered under Parish
Emergency Manager	Yes	Covered under Parish
Community Planner	No	
Civil Engineer	Yes	Covered under Parish
GIS Coordinator	Yes	Covered under Parish
Grant Writer	No	
Other	N/A	
Technical	Yes/No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Covered under Parish
Hazard Data & Information	Yes	Covered under Parish
Grant Writing	No	
Hazus Analysis	No	
Other	N/A	

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	Yes/No	Comments
Capital Improvements project funding	Yes	Under Parish
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.	Yes	Parishwide
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	N/A	
Other	N/A	

## Village of Sikes

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

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	Yes/No	Comments
Planning Commission	Yes	Covered under Parish
Mitigation Planning Committee	Yes	Covered under Parish
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Covered under Parish
Staff	Yes/No	Comments
Chief Building Official	Yes	Covered under Parish
Floodplain Administrator	Yes	Covered under Parish
Emergency Manager	Yes	Covered under Parish
Community Planner	No	
Civil Engineer	Yes	Covered under Parish
GIS Coordinator	Yes	Covered under Parish
Grant Writer	No	
Other	No	
Technical	Yes/No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Covered under Parish
Hazard Data & Information	Yes	Covered under Parish
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	Covered under Parish
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.	Yes	Parishwide
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	



## City of Winnfield

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

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

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

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

## Building Inventory

Winn Parish and Jurisdiction Owned Building Information								
Unincorporated Winn Parish								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
St. Maurice Fire Station	Fire Search and Rescue	578 2nd Street	St. Maurice	31.75762444	-92.95478431			Metal
Winn Parish Fire Department	Fire Search and Rescue	10187 South Main Street	Tullos	31.85500806	-92.42760469			Metal
Winn Parish Fire District 3 - Brewton Mill Station	Fire Search and Rescue	Hwy 501	Brewton Mill	32.11190536	-92.8430802			Metal
Winn Parish Fire District 3 - Wheeling Station	Fire Search and Rescue	Hwy 34	Wheeling	31.74696505	-92.837589			Metal
Winn Parish Courthouse	Government	119 W. Main Street	Winnfield	31.926205	-92.6392317	7,000,000	1962	Reinforced Masonry
Winn Parish Courthouse Annex	Government	201 W. Main Street	Winnfield			750,000	renovated 2014	Reinforced Masonry
Winn Parish Health Unit	Health/Government	301 W. Main Street	Winnfield	31.9265644	-92.6410263	1,875,000	1949 renovated 2009	Reinforced Masonry
Village of Atlanta								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Atlanta High School	Education	118 School Road	Atlanta	31.80664193	-92.73285555	5,167,175	1940	Concrete
Atlanta Middle School	Education	118 School Road	Atlanta	31.80700847	-92.73331891	5,167,175	1940	Concrete
Atlanta Elementary School	Education	None	Atlanta	31.80631343	-92.73323592	5167175	1940	Concrete
Winn Parish Fire District 3 - Atlanta Station	Fire Search and Rescue	176 Collier St.	Atlanta	31.80514011	-92.73444402	\$45,000	2001	Metal
Atlanta Parish Library	Education	110 School Road	Atlanta	31.8059889	-92.7337916	\$150,000	1980s	Concrete
Atlanta Town Hall	Civil Government	178 Collier St.	Atlanta	31.80514823	-92.73447267	80,000	1983	Metal
Village of Calvin								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Calvin High School	Education	223 2nd Street	Calvin	31.9677478	-92.7755199	4,902,050	1950	Concrete
Calvin Middle School	Education	223 2nd Street	Calvin	31.9677478	-92.7755199	4,902,050	1950	Concrete
Calvin Elementary School	Education	223 2nd Street	Calvin	31.9677478	-92.7755199	4902050	1950	Concrete

Winn Parish Fire District 3 - Calvin Station	Fire Search and Resure	420 Poole Street	Calvin	31.96556	-92.7766816	\$140,000	2001	Metal
Village Office of Calvin (Town Hall)	Civil Government	455 Elliott Avenue	Calvin	31.9652221	-92.7766809	\$40,000	2015	Metal
Winn Parish Library	Education	255 2nd Street	Calvin	31.966887	-92.7761317	\$150,000	1980	Concrete
Village of Dodson								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Vacant School	Education	Nearby: 501-505 McDade Street	Dodson	32.0816257	-92.66493286	88,560	1965	Concrete
Winn Parish Fire District 3 - Cypress Creek Station	Fire Search and Rescue	Nearby: 1882-2594 Louisiana 505	Dodson	32.08435107	-92.76069128	10,950	1980	Metal
Dodson Town Hall	Civil Government	205 Gresham	Dodson	32.07750333	-92.65901513	20175	1970	Metal
Dodson High School	Education	305 South 6th Street	Dodson	32.0767491	-92.6575577	9456018	1963	Concrete
Dodson Middle School	Education	305 South 6th Street	Dodson	32.0767491	-92.6575577	9456018	1963	Concrete
Dodson Elementary School	Education	305 South 6th Street	Dodson	32.0767491	-92.6575577	9456018	1963	Concrete
Dodson Parish Library	Education	206 E. Gresham St.	Dodson	32.0768884	-92.6577527	\$150,000	1980	Concrete
Village of Sikes								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Vacant School	Education	Nearby: 5th Avenue	Sikes	32.07987153	-92.48930978			
Winn Parish Fire District 3 - Shady Grove Station	Fire Search and Rescue	3115 Hwy 127	Sikes	32.00386241	-92.37829991	\$150,000	2001	Metal
Winn Parish Fire District 3 - Sikes Station	Fire Search and Rescue	Nearby: Front Street	Sikes	32.0797003	-92.48713661	\$150,000	2001	Metal
Sikes Parish Library	Education	125 Fifth Ave.	Sikes			\$150,000	1980	Concrete
City of Winnfield								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Winnfield Senior High School	Education	Hwy 167	Winnfield	31.94663372	-92.65508783	13285582	1964	Concrete
Winnfield Primary School	Education	401 South Saint John Street	Winnfield	31.92414779	-92.64134405	5614255	1988	Concrete
Dodson High School	Education	304 East Court Street	Winnfield	32.07645008	-92.65776924	9456018	1963	Concrete
Winnfield Kindergarten School	Education	1010 West Boundary Avenue	Winnfield	31.92778799	-92.62504545	2779370	1968	Concrete
Winnfield Middle School	Education	685 Thomas Mill Road	Winnfield	31.9468713	-92.65856747	7899300	1978	Concrete

Calvin High School	Education	None	Winnfield	31.968009	-92.77531813	4902050	1950	Concrete
Winn Parish Fire Department	Fire Search and Rescue	8920 Louisiana 501	Winnfield	31.96564564	-92.77670578	32550	1970	Metal
Winn Parish Fire Department	Fire Search and Rescue	306 South Abel Street	Winnfield	31.94467537	-92.59119779	15450	1965	Metal
Winn Parish Fire Department	Fire Search and Rescue	Nearby: Kisatchie National Forest	Winnfield	31.86151601	-92.8825309	21600	1965	Metal
Winnfield Central Fire Station	Fire Search and Rescue	Abel St.	Winnfield	31.92427068	-92.63904832	86940	1957	Concrete
City of Winnfield Police Station	Law Enforcement	Nearby: 401-499 South Jones Street	Winnfield	31.92330552	-92.63909555	63300	2002	Metal
Winn Correctional Facility	Prisons and Correctional Facilities	Nearby: Kisatchie National Forest	Winnfield	31.85012419	-92.78005317	4817340	1950	Concrete
Winn Parish Office of Family Support	Civil Government	E. Lafayette St.	Winnfield	31.92452905	-92.62728159	68715	1960	Concrete
Winn Parish Courthouse	Civil Government	119 West Main Street #103	Winnfield	31.92622355	-92.63909687	330345	1950	Concrete
Winnfield Animal Shelter	Civil Government	508 S Beville St	Winnfield	31.92146086	-92.63843459	20175	1960	Metal
City of Winnfield Utilities Office	Civil Government	102 South Beville Street	Winnfield	31.92637705	-92.63774318	51840	1950	Concrete
Winn Parish Special Services Office	Civil Government	Nearby: 305 East Court Street	Winnfield	31.92606113	-92.63622128	40500	1960	Concrete
Winn Parish School Board	Civil Government	Winn Parish School Board	Winnfield	31.92539308	-92.63626683	1266740	1980	Concrete
Winn Parish Kistachie Work Center	Civil Government	5930 U.S. 167	Winnfield	31.89752133	-92.78371261	123120	1965	Concrete
Winnfield Maintenance Unit	Civil Government	5963 Hwy 167	Winnfield	31.94694989	-92.65245843	112575	1970	Metal
City of Winnfield Court Building	Civil Government	424 West Court Street	Winnfield	31.92384841	-92.63896069	16950	2002	Metal
Winnfield City Court Clerk of Court	Civil Government	119 West Main Street #103	Winnfield	31.92659999	-92.64536045	37530	1980	Concrete
Winn Parish Road Department	Civil Government	5963 U.S. 167	Winnfield	31.94674477	-92.65007042	34875	1980	Metal
Winn Parish Medical Center	Primary Care Facilities	301 Par Road 245	Winnfield	31.92464337	-92.64549574	425075	1990	Concrete
Winn Community Health Center	Primary Care Facilities	431 West Lafayette Street	Winnfield	31.9245814	-92.64458772	248500	1990	Concrete
Winnfield Specialty Hospital	Primary Care Facilities	915 1st Street	Winnfield	31.93242589	-92.63183414	711375	1990	Concrete

## Vulnerable Populations

Vulnerable Populations Worksheet					
Winn Parish Planning Area					
All Hospitals (Private or Public)	Street	City	Zip Code	Latitude	Longitude
Winn Parish Medical Center	301 Par Road 245	Winnfield	71483	31.92464337	-92.64549574
Winn Community Health Center	431 West Lafayette Street	Winnfield	71483	31.9245814	-92.64458772
Winnfield Specialty Hospital	915 1st Street	Winnfield	71483	31.93242589	-92.63183414
Nursing Homes (Private or Public)	Street	City	Zip Code	Latitude	Longitude
Autumn Leaves Nursing & Rehabilitation Center	Nearby: 118 Buck Carter Road	Winnfield	71483	31.91270622	-92.66375895
Winnfield Nursing and Rehabilitation Center	Nearby: 901-1099 1st Street	Winnfield	71483	31.93236245	-92.63105693
Mobile Home Parks	Street	City	Zip Code	Latitude	Longitude
Midway Marina RV Park	318 Hwy 477	St. Maurice	71457	31.75474959	-92.96807228
River Bend RV Campground	113 River Bend Road	Winnfield	71483	31.9384949	-92.6038402
Unknown	Hwy 34	Atlanta	71404	31.80598227	-92.73763279
Dodson Country RV Park	Nearby: 106 6th Street	Dodson	71422	32.0795204	-92.65780076
Hillbilly Holler RV Park	58 2nd Street	Dodson	71422	32.07957593	-92.66179589
Unknown	Nearby: 299 Mimosa Drive	Winnfield	71483	31.90586269	-92.63689219
Boars Nest RV Park	Nearby: 101-125 Oklahoma Street	Winnfield	71483	31.94050072	-92.59735971
Saline Lake RV Park	Stumps Camp Road	Winnfield	71483	31.89003846	-92.89533546
Back of the Moon	Nearby: 212 Virginia Street	Winnfield	71483	31.93451567	-92.59332329
Boars Nest RV Park	Nearby: 145-199 Stacy Smith Road	Winnfield	71483	31.93336947	-92.58546807

## National Flood Insurance Program (NFIP)

National Flood Insurance Program (NFIP)						
	Winn Parish	Atlanta	Calvin	Dodson	Sikes	Winnfield
<b>Insurance Summary</b>						
How many NFIP policies are in the community? What is the total premium and coverage?	# of Policies: 34; Total Premiums: \$18,994; Total Coverage: \$6,130,800	Community does not participate	# of Policies: -0-; Total Premiums: \$-0-; Total Coverage: \$-0-	Community does not participate	Community does not participate	# of Policies: 8; Total Premiums: \$4,932; Total Coverage: \$2,178,100
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	# of paid claims: 108; Total amount of paid claims: \$1,834,540; Substantial Damage: 37	Community does not participate	# of paid claims: 3; Total amount of paid claims: \$55,874; Substantial Damage: 3	Community does not participate	Community does not participate	# of paid claims: 31; Total amount of paid claims: \$435,938; Substantial Damage: 8
How many structures are exposed to flood risk with in the community?		Community does not participate		Community does not participate	Community does not participate	
Describe any areas of flood risk with limited NFIP policy coverage.		Community does not participate		Community does not participate	Community does not participate	
<b>Staff Resources</b>						
Is the Community FPA or NFIP Coordinator certified?	No	No		No	No	
Is flood plain management an auxiliary function?	Yes	Yes		N/A	Yes	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)		Community does not participate		Community does not participate	Community does not participate	
What are the barriers to running an effective NFIP program in the community, if any?		Community does not participate		Community does not participate	Community does not participate	
<b>Compliance History</b>						
Is the community in good standing with the NFIP?	Yes	Community does not participate	Yes	Community does not participate	Community does not participate	Yes
Are there any outstanding compliance issues(i.e., current violations)?	No	Community does not participate	No	Community does not participate	Community does not participate	No



When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact(CAC)?	<b>CAV:</b> 2/21/2003; <b>CAC:</b> 11/9/2016	Community does not participate	<b>CAV:</b> 3/2/2010; <b>CAC:</b> 3/28/2008	Community does not participate	Community does not participate	<b>CAV:</b> 11/19/2013; <b>CAC:</b> 10/19/2006
Is a CAV or CAC scheduled or needed? If so when?	No	Community does not participate	No	Community does not participate	Community does not participate	No
<b>Regulation</b>						
When did the community enter the NFIP?	<b>E</b> = 7/24/1989; <b>R</b> = 7/24/1989	Community does not participate	<b>E</b> = 9/29/1976; <b>R</b> = 7/1/1987	Community does not participate	Community does not participate	<b>E</b> = 8/4/1975; <b>R</b> = 7/1/1987
Are the FIRMs digital or paper?	Digital	Paper	Digital	Community does not participate	Community does not participate	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Meets	Community does not participate	Meets	Community does not participate	Community does not participate	Meets
<b>Community Rating System (CRS)</b>						
Does the community participate in CRS?	No	No	No	No	No	No
What is the community's CRS Class Ranking?	N/A	N/A	N/A	N/A	N/A	N/A
Does the plan include CRS planning requirements?		N/A		N/A	N/A	