

2021 LASALLE PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

UNINCORPORATED LASALLE
PARISH, JENA, OLLA, TULLOS,
URANIA, JENA BAND OF
CHOCTAW INDIANS



LASALLE PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE

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LaSalle Parish



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Unincorporated LaSalle Parish
 Town of Jena
 Town of Olla
 Town of Tullos
 Town of Urania
 Jena Band of Choctaw

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

- Unincorporated LaSalle Parish
- Town of Jena
- Town of Olla
- Town of Tullos
- Town of Urania
- Jena Band of Choctaw

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

Geography, Population and Economy

Geography

LaSalle Parish is located in east central Louisiana, approximately 18 miles northeast of Alexandria (*Figure 1-1*). The Little River, Castro Creek, and Big Saline Bayou form the western border with Winn, Grant, and Rapides Parishes. Caldwell Parish is located to the north and Catahoula Parish is located to the east. To the south is Avoyelles Parish, located along Saline Lake.



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



Figure 1-2: Incorporated Jurisdictions within LaSalle Parish



Figure 1-3: Jena Band of Choctaw Tribal Areas within LaSalle Parish (Shown in Yellow)

The topography of LaSalle Parish varies significantly from northeast to southwest. The northeastern part of the parish consists of rolling terrain covered by pine and hardwood forests approximately 325 feet above sea level. Moving to the south and southeast, the land submerges into rich cypress forests and marshes. The largest concentration of urban development is found in the central and northwestern portions of the parish.

LaSalle Parish weather is typically warm and humid. 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 LaSalle Parish in particular, the summer months are usually quite warm, with an average daily maximum temperature in July and August of 92°F. Winters are typically mild. Snowfall averages less than one inch per year. Average annual rainfall for the area is approximately 59 inches.

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



Figure 1-4: Louisiana Homeland Security Regions

Population

The population of LaSalle Parish is estimated at 14,892 (2019 estimate) with a population percent change from April 1, 2010 – July 1, 2019 of 0.01%.

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

	2010 Census	2013 Estimate	2019 Estimates	Percent Change 2010 - 2019
Total Population	14,890	14,820	14,892	0.01%
Population Density (Pop/Sq. Mi.)	23.8	-----	-----	-----
Total Households	5619	5,619	4,814	-16.72%
Persons Per Household	-----	-----	2.81	-----

Economy

The LaSalle Parish economy is deeply rooted in agriculture, forestry, and oil and gas. Chief crops include timber, corn, soybeans, sugarcane, and beef cattle. Its hard-working labor force, excellent transportation network, abundant raw materials, and land for commercial and industrial development make the area an ideal prospect for business investment. Industry data for business patterns in LaSalle Parish can be found in the table on the next page.

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

Business Description	Number of Establishments	Number of Employees	Annual Payroll (\$1,000)
Retail Trade	46	455	11,627
Manufacturing	8	209	12,662
Health Care and Social Assistance	19	836	29,460
Mining, Quarrying, Oil and Gas Extraction	31	248	14,388
Transportation and Warehousing	11	44	3,140
Construction	23	114	5,065
Administration/Support and Waste Management/Remediation Services	11	353	16,432
Real Estate and Rental and Leasing	5	13	267
Wholesale Trade	9	245	9,007
Other Services (except Public Administration)	31	337	21,362
Accommodation and Food Services	21	262	3,624
Financial and Insurance	20	141	5,874
Professional, Scientific, and Technical Services	104	175	6,643
Information	5	52	3,422
Arts, Entertainment, and Recreation	3	19	328
Agriculture, Forestry, Fishing and Hunting	11	70	3,385

Hazard Mitigation

To fully understand hazard mitigation efforts in LaSalle 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 techniques.



Figure 1-5: The Four Phases of Emergency Management and their Relation to Future Hazard Mitigation
(Source: Louisiana State Hazard Mitigation Plan 2014)

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

General Strategy

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

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

The 2021 LaSalle 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 LaSalle Parish HMP were as follows:

- Section One Introduction
- Section Two Hazard Identification and Risk Assessment
- Section Three Capability Assessment
- Section Four Mitigation Strategy
- Appendix A Planning Process
- Appendix B Plan Maintenance
- Appendix C Parish Critical 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 LaSalle Parish Hazard Mitigation Steering Committee recognized the benefits from the successful analysis and mitigation planning executed in previous plan updates, as well as improvements to be made in the 2021 update. This plan update remains coherent with those documents, retaining language and content when needed, deleting it when appropriate, and augmenting it when constructive.

2021 Plan Update

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

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

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

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

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

Table 1-3: 2021 Plan Update Crosswalk

Plan Update Crosswalk	
2016 Update	2021 Update
Section 1: Introduction	Section 1: Introduction
Section 2: Hazard Identification and Risk Assessment	Section 2: Hazard Identification and Risk Assessment
Section 3: Capability Assessment	Section 3: Capability Assessment
Section 4: Mitigation Strategy	Section 4: Mitigation Strategy
Appendix A: Planning Process	Appendix A: Planning Process
Appendix B: Plan Maintenance	Appendix B: Plan Maintenance
Appendix C: Essential Facilities	Appendix C: Critical Facilities
Appendix D: Plan Adoptions	Appendix D: Plan Adoptions
Appendix E: State Required Worksheets	Appendix E: State Required Worksheets

Despite numerous changes in this plan update, the plan remains consistent in its emphasis on the types of hazards that pose the most risk to loss of life, injury, and property in LaSalle Parish and its communities. The extent of this risk is dictated primarily by its geographic location. Most significantly, LaSalle Parish remains at high risk of water inundation from various sources, primarily flooding events. The entire parish is also at high risk of damages from high winds and wind-borne debris. 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.

LaSalle Parish, the jurisdictions, and the Indian Tribal government will continue to comply with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44 CFR 13.11(c).

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2. Hazard Identification and Parish-Wide Risk Assessment

This section assesses the various hazard risks that LaSalle 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 LaSalle 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 Last Plan	Considered Medium or High Risk in the State's HM Plan	Profiled in the 2021 Update
Drought	X		X
Flooding	X	X	X
Thunderstorms	X	X	X
Tornadoes	X	X	X
Tropical Cyclones	X	X	X
Wildfires	X		X
Winter Storms	X		X

Prevalent Hazards to the Community

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

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

- a) Drought
- b) Flooding
- c) Thunderstorms
- d) Tornadoes
- e) Tropical Cyclones
- f) Wildfires
- g) Winter Storms

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

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

The potential destructive power of tropical cyclones and floods were determined to be the most prevalent hazard to the parish. Twenty-one of the twenty-three disaster declarations LaSalle Parish has received resulted from either flooding (13) or tropical cyclones (8), which validates these as the most significant hazard. Therefore, the issues of hurricanes and flooding will serve as the main focus during the mitigation planning process. Hurricanes present risks from the potential for flooding, primarily resulting from storm surge, and high wind speeds. While storm surge is considered the hazard with the most destructive potential, the risk assessment will also assess non-storm surge flooding as well. Flooding can also occur from non-hurricane events, as flash floods are a common occurrence due to heavy rainfall.

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

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

Previous Occurrences

On the next page, *Table 2-2* summarizes federal disaster declarations for LaSalle Parish since 1965. Information includes names, dates, and types of disaster.

Table 2-2: LaSalle Parish Major Disaster Declarations.

Disaster Number	Year	Declaration
374	4/27/1973	Severe Storms, Flooding
418	2/23/1974	Severe Storms, Flooding
3011	4/12/1975	Severe Storms, Flooding
470	6/6/1975	Tornadoes, Flooding
3031	2/22/1977	Drought and Freezing
584	5/2/1979	Severe Storms, Flooding
675	1/11/1983	Severe Storms, Flooding
804	11/30/1987	Tornadoes and Flooding
829	5/20/1989	Severe Storms, Flooding
904	5/3/1991	Severe Storms, Tornadoes, and Flooding
1437	10/3/2002	Tropical Cyclone – Hurricane Lili
1603	8/29/2005	Tropical Cyclone – Hurricane Katrina
1607	9/24/2005	Tropical Cyclone – Hurricane Rita
1668	11/2/2006	Severe Storms, Flooding
1786	9/2/2008	Tropical Cyclone – Hurricane Gustav
3322	5/6/2011	Severe Storms, Flooding
4015	8/18/2011	Severe Storms, Flooding
4080	8/29/2012	Tropical Cyclone – Hurricane Isaac
4263	3/13/2016	Severe Storms, Flooding
4484	3/24/2020	COVID-19 Pandemic
3527	6/7/2020	Tropical Cyclone – Tropical Storm Cristobal
3538	8/23/2020	Tropical Cyclone – Tropical Storms Laura and Marco
4559	8/28/2020	Tropical Cyclone – Hurricane Laura

Probability of Future Hazard Events

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

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

Table 2-3: Probability of Future Hazard Reoccurrence.

Hazard	Probability					
	LaSalle Parish (Unincorporated)	Jena	Olla	Tullos	Urania	Jena Band of Choctaw
Drought	17%	17%	17%	17%	17%	17%
Flooding	32%	20%	4%	4%	4%	4%
Thunderstorms - Hail	100%	100%	100%	100%	100%	100%
Thunderstorms - Lightning	50%	50%	50%	50%	50%	50%
Thunderstorms - Winds	3%	3%	3%	3%	3%	3%
Tornadoes	60%	60%	60%	60%	60%	60%
Tropical Cyclones	39%	39%	39%	39%	39%	39%
Wildfires	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
Winter Storms	47%	47%	47%	47%	47%	47%

As shown in the above table, hailstorms have the highest chance of occurrence in the parish (100%). These are followed by tornadoes (60%), lightning (50%), winter storms (47%), tropical cyclones (39%), flooding for the unincorporated area (32%), flooding for the incorporated area of Jena (20%), drought (17%), flooding for the Jena Band of Choctaws and the incorporated areas of Olla, Tullos, and Urania (4%), and high winds (3%). Wildfires for the entire parish have an annual chance of occurrence of less than 1%.

Inventory of Assets for the Entire Parish

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

Within the entire planning area, there is an estimated value of \$1,320,148,000 in structures throughout the parish. The tables below provides the total estimated value for each type of structure by occupancy.

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

Occupancy	LaSalle Parish	Unincorporated Area	Jena	Olla
Agricultural	\$1,632,000	\$1,189,000	\$179,000	\$264,000
Commercial	\$119,156,000	\$42,613,000	\$54,106,000	\$20,994,000
Government	\$8,909,000	\$8,404,000	\$247,000	\$0
Industrial	\$34,667,000	\$16,918,000	\$14,084,000	\$3,402,000
Religion	\$23,087,000	\$12,870,000	\$4,775,000	\$4,314,000
Residential	\$1,125,404,000	\$682,009,000	\$280,868,000	\$92,268,000
Education	\$7,293,000	\$3,973,000	\$0	\$1,846,000
Total	\$1,320,148,000	\$767,976,000	\$354,259,000	\$123,088,000

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

Occupancy	Tullos	Urania	Jena Band of Choctaw
Agricultural	\$0	\$0	\$0
Commercial	\$445,000	\$872,000	\$126,000
Government	\$0	\$130,000	\$128,000
Industrial	\$22,000	\$241,000	\$0
Religion	\$0	\$1,128,000	\$0
Residential	\$28,795,000	\$41,280,000	\$184,000
Education	\$0	\$1,474,000	\$0
Total	\$29,262,000	\$45,125,000	\$438,000

Essential Facilities of the Parish

The figures on the following pages show the locations and names of the essential facilities within the parish.

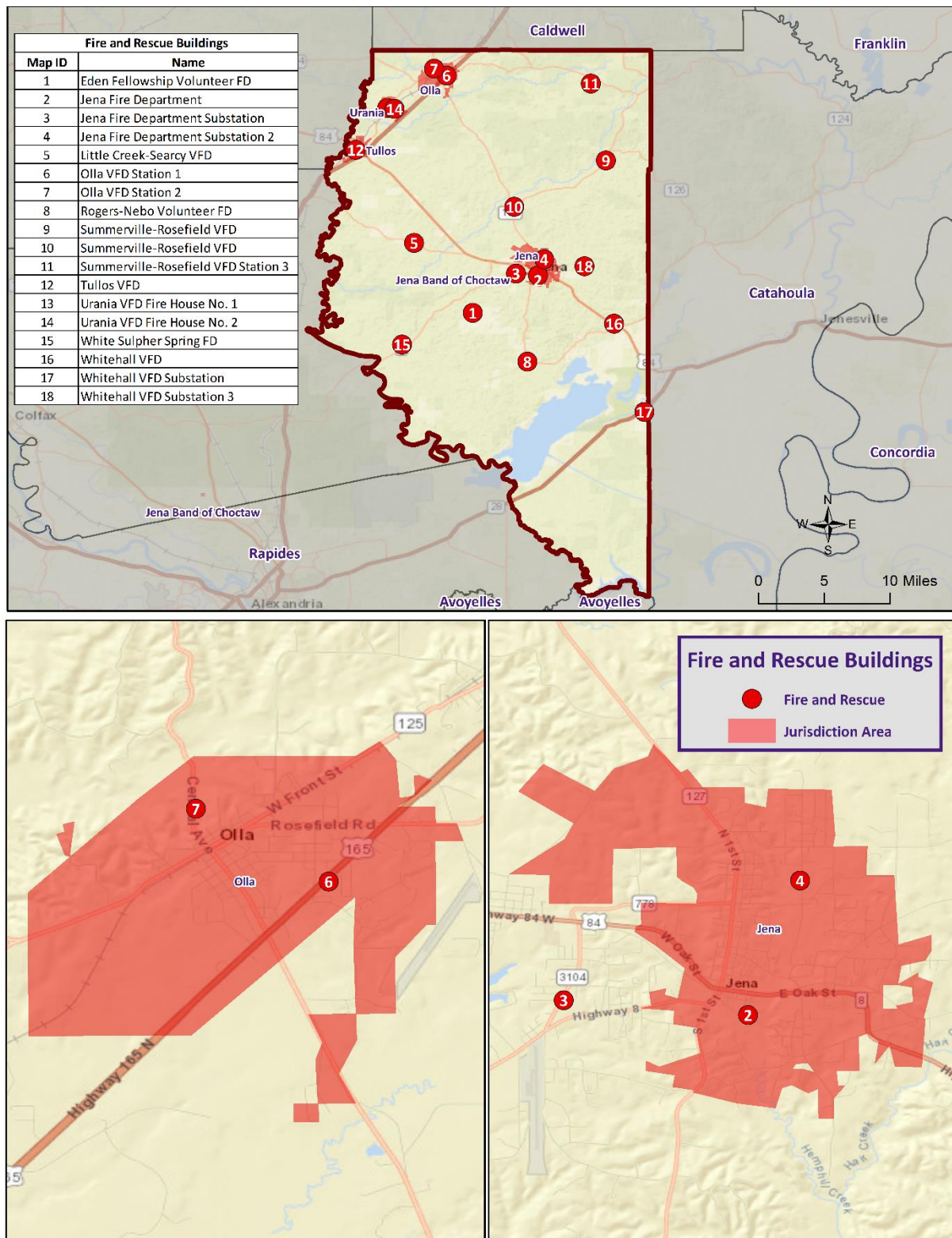
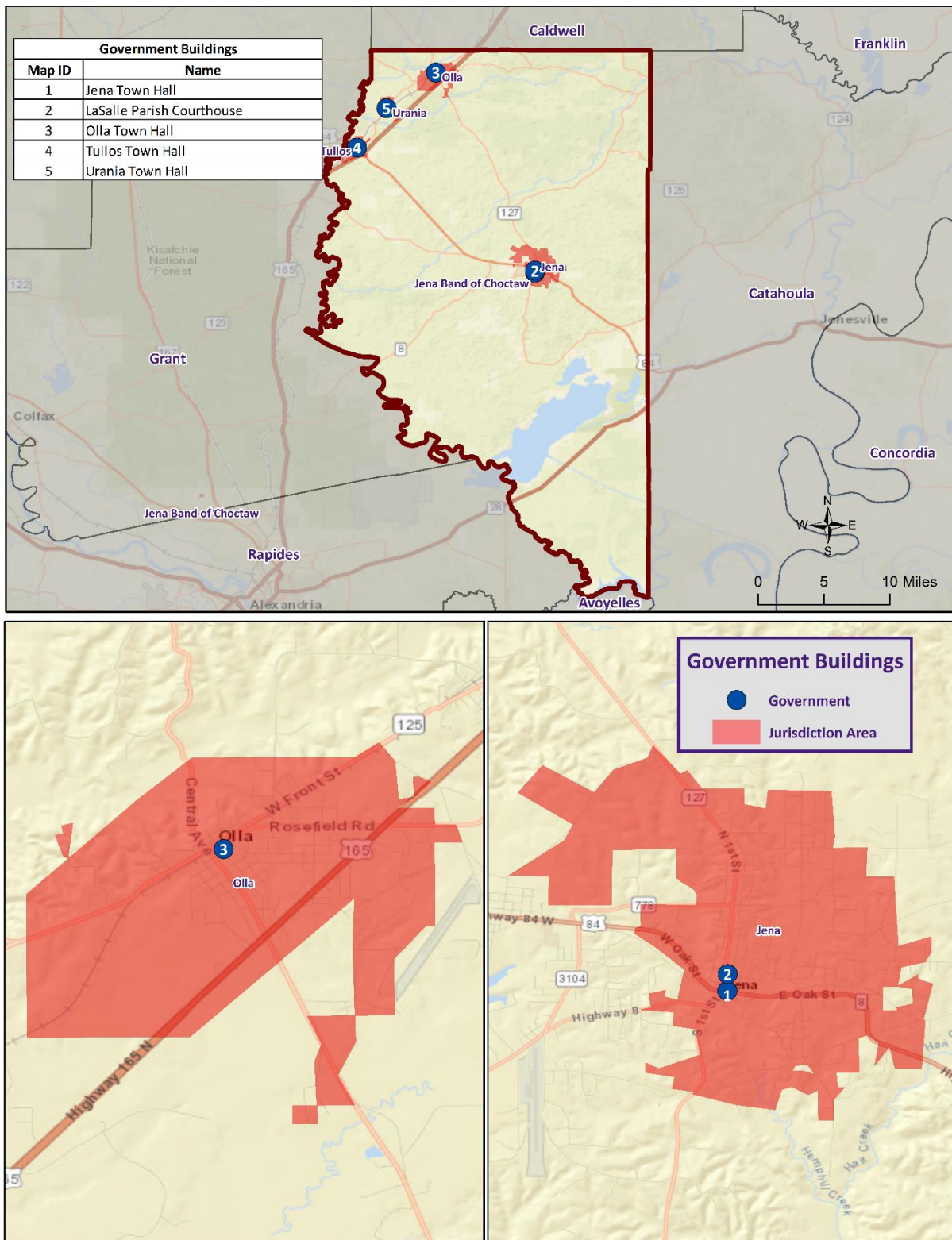


Figure 2-1: Fire and Rescue Facilities in LaSalle Parish.



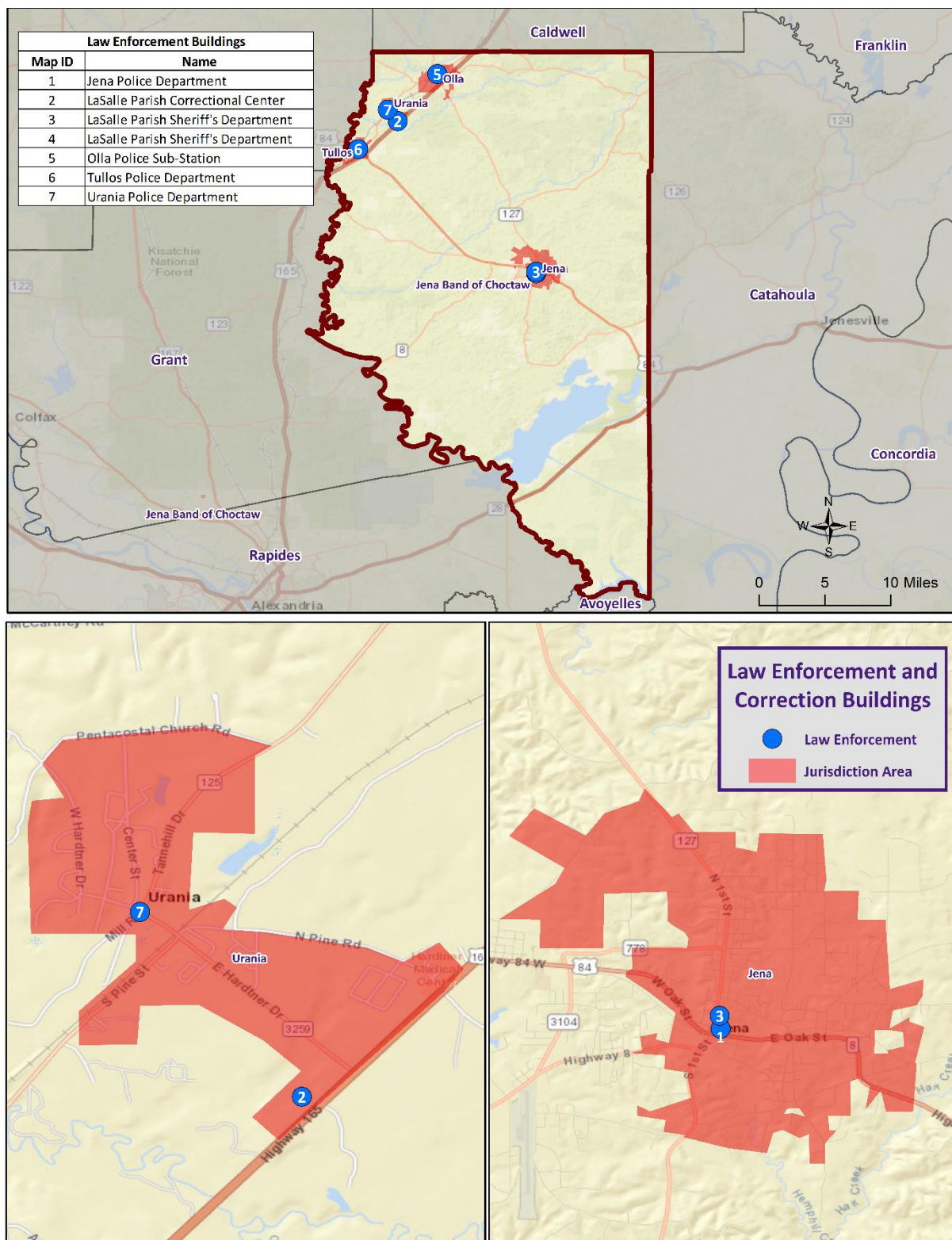


Figure 2-3: Law Enforcement in LaSalle Parish.

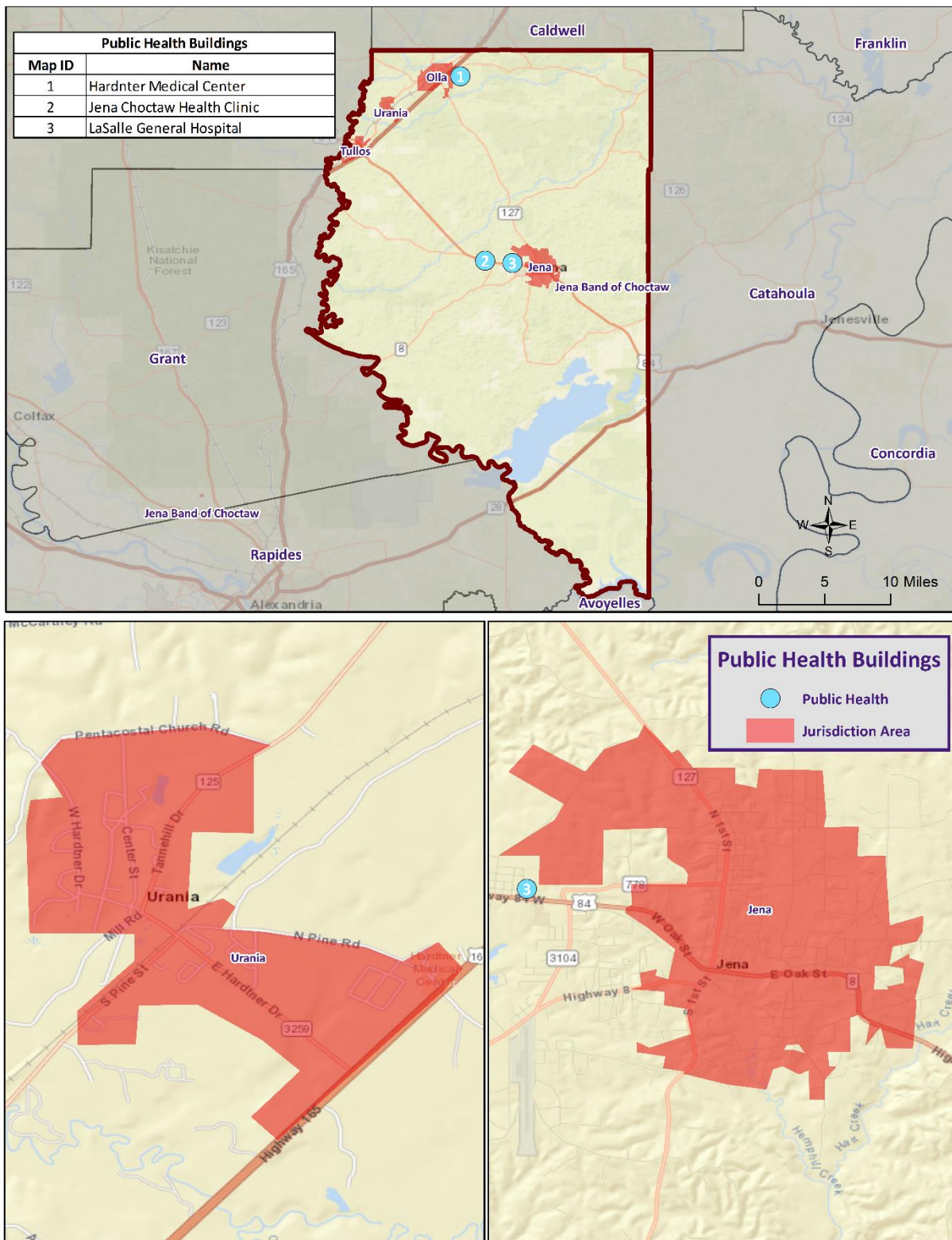


Figure 2-4: Public Health Facilities in LaSalle Parish.

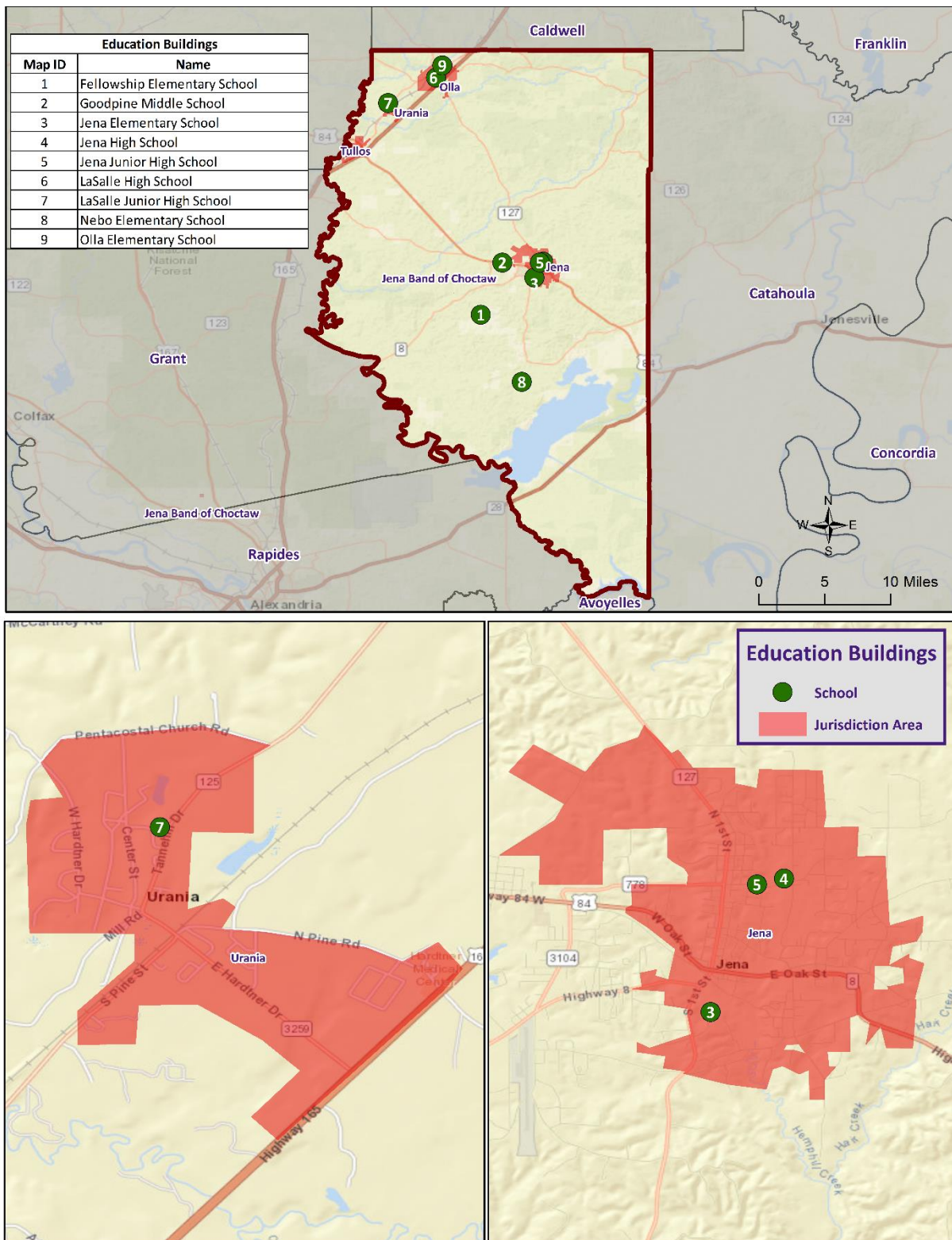


Figure 2-5: Educational Facilities in LaSalle Parish.

Future Development Trends

LaSalle Parish experienced a growth in population and housing between the years of 2000 and 2019, increasing in population from 14,282 with 6,271 housing units in the year 2000 to a population of 14,892 with 6,764 housing units in the year 2019. The unincorporated area of LaSalle Parish experienced the largest population growth within the parish growing from a populace of 8,409 in 2010 to 8,428 in 2019 (0.2% overall growth) which is then followed by the incorporated area of Jena. The incorporated areas of Olla, Tullos, and Urania all experienced a decline in population during this same time period.

Tullos experienced the largest growth of housing units from 2010 to 2019 growing from 191 in 2010 to 234 in 2019. The incorporated area of Olla experienced the second largest growth in housing units during this time period with a 1.4% annual growth rate followed by the incorporated area of Jena 0.9% annual growth rate. The incorporated area of Tullos and the unincorporated area of LaSalle Parish all experienced a decline in housing units during this same time period. The future population and number of buildings can be estimated using U.S. Census Bureau housing and population data. No data is available from the Census Bureau's Population Estimates Program for Jena Band of Choctaw, therefore no details regarding development trends for the tribal area are included in the plan. The following tables show population and housing unit estimates from 2000 to 2019:

Table 2-6: Population Growth Rate for LaSalle Parish.

Total Population	LaSalle Parish	Unincorporated Area	Jena	Olla	Tullos	Urania
1-Apr-00	14,282	8,775	2,971	1,417	419	700
1-Apr-10	14,890	8,409	3,398	1,385	385	1,313
1-Jul-19	14,892	8,428	3,397	1,375	391	1,301
Population Growth between 2000 – 2010	4.3%	-4.2%	14.4%	-2.3%	-8.1%	87.6%
Average Annual Growth Rate between 2000 – 2010	0.4%	-0.4%	1.4%	-0.2%	-0.8%	8.8%
Population Growth between 2010 – 2019	0.0%	0.2%	0.0%	-0.7%	1.6%	-0.9%
Average Annual Growth Rate between 2010 – 2019	0.00%	0.03%	0.00%	-0.08%	0.17%	-0.10%

*No data is available from the Census Bureau's Population Estimates Program for Jena Band of Choctaw

Table 2-7: Housing Growth Rate for LaSalle Parish.

Total Housing Units	LaSalle Parish	Unincorporated Area	Jena	Olla	Tullos	Urania
1-Apr-00	6,271	3,812	1,264	681	203	311
1-Apr-10	6,560	4,034	1,375	644	191	316
1-Jul-19	6,764	4,009	1,489	728	234	304
Housing Growth between 2000 – 2010	4.6%	5.8%	8.8%	-5.4%	-5.9%	1.6%
Average Annual Growth Rate between 2000 – 2010	0.5%	0.6%	0.9%	-0.5%	-0.6%	0.2%
Housing Growth between 2010 – 2019	3.1%	-0.6%	8.3%	13.0%	22.5%	-3.8%
Average Annual Growth Rate between 2010 – 2019	0.3%	-0.1%	0.9%	1.4%	2.5%	-0.4%

*No data is available from the Census Bureau's Population Estimates Program for Jena Band of Choctaw

Future Hazard Impacts

Hazard impacts were estimated for five years and ten years in the future (2025 and 2030). Yearly population and housing growth rates were applied to parish inventory assets for composite flood and tropical cyclones. Based on a review of available information, it is assumed that population and housing units will grow within LaSalle Parish from the present until 2030. A summary of estimated future impacts is shown in the table below. Dollar values are expressed in future costs and assume an annual rate of inflation of 1.02%. All jurisdictions in the parish and the Jena Band of Choctaw are included in these estimates if population and structures within these areas are located in the hazard area. Currently, there are no new developments involving critical facilities within the jurisdictions or the Jena Band of Choctaw Tribal area. There have been no changes in development to impact the communities' and tribal areas vulnerability since the last update.

Table 2-8: Estimated Future Impacts, 2018-2030.

(Source: Hazus, US Census Bureau)

Hazard / Impact	Total in Parish (2019)	Hazard Area (2018)	Hazard Area (2025)	Hazard Area (2030)
Flood Damage				
Structures	6,764	4,464	4,542	4,637
Value of Structures	\$1,338,221,524	\$880,134,545	\$942,054,461	\$1,022,135,195
# of People	14,892	9,804	9,853	9,912
Tropical Cyclone Damage				
Structures	6,764	6,787	6,905	7,050
Value of Structures	\$1,338,221,524	\$1,338,221,524	\$1,432,369,134	\$1,554,129,792
# of People	14,892	14,907	14,982	15,072

Both population and housing numbers have remained relatively steady throughout the parish since the last update to the LaSalle Parish Hazard Mitigation Plan. With that in mind, LaSalle 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 LaSalle Parish. Strict enforcement of building codes for all new development is an additional step taken by the parish in its effort to decrease its vulnerability and increase the resiliency of the parish against natural hazards. The small amount of development that has occurred since 2016 has not in any knowing way altered the jurisdiction's vulnerability to natural hazards.

Assessing Vulnerability Overview

The purpose of assessing vulnerability is to quantify and/or qualify exposure and determine how various threats and hazards impact life, property, the environment, and critical operations in LaSalle 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 LaSalle 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 LaSalle Parish. A summary of the PRI is found in the table on the next page. The conclusions drawn from the qualitative and quantitative assessments are fitted into three categories based on High, Moderate, or Low designations. Hazards identified as high risk have risk factors of 2.5 or greater. Risk Factors ranging from 2.0 to 2.4 are deemed moderate risk hazards. Hazards with Risk Factors less than 2.0 are considered low risk.

Table 2-9: 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 2-10: 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 2-11: Risk Assessment for LaSalle Parish.

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Drought	3	2	4	2	3	2.8
Flooding	3	4	3	4	3	3.4
Thunderstorms - Hail	4	2	3	3	1	2.7
Thunderstorms - Lightning	3	2	2	3	1	2.25
Thunderstorms - Wind	1	2	3	3	1	1.95
Tornadoes	3	3	2	4	3	2.95
Tropical Cyclones	3	4	4	1	4	3.3
Wildfires	1	3	3	1	2	2.05
Winter Storms	3	3	4	1	2	2.75

Land Use

The LaSalle Parish Land Use table is provided below. Residential, commercial, and industrial areas account for only 6% of the parish's land use. Forested land at 217,404 acres is the largest category accounting for 57% of land in the parish. The parish also consists of wetlands (28%), water areas (5%), and agricultural areas (3%).

Table 2-12: LaSalle Parish Land Use.

(Source: USGS Land Use Map)

Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	13,001	3%
Wetlands	106,285	28%
Forest Land (Not including forested wetlands)	217,404	57%
Urban/Development	20,930	6%
Water	20,656	5%

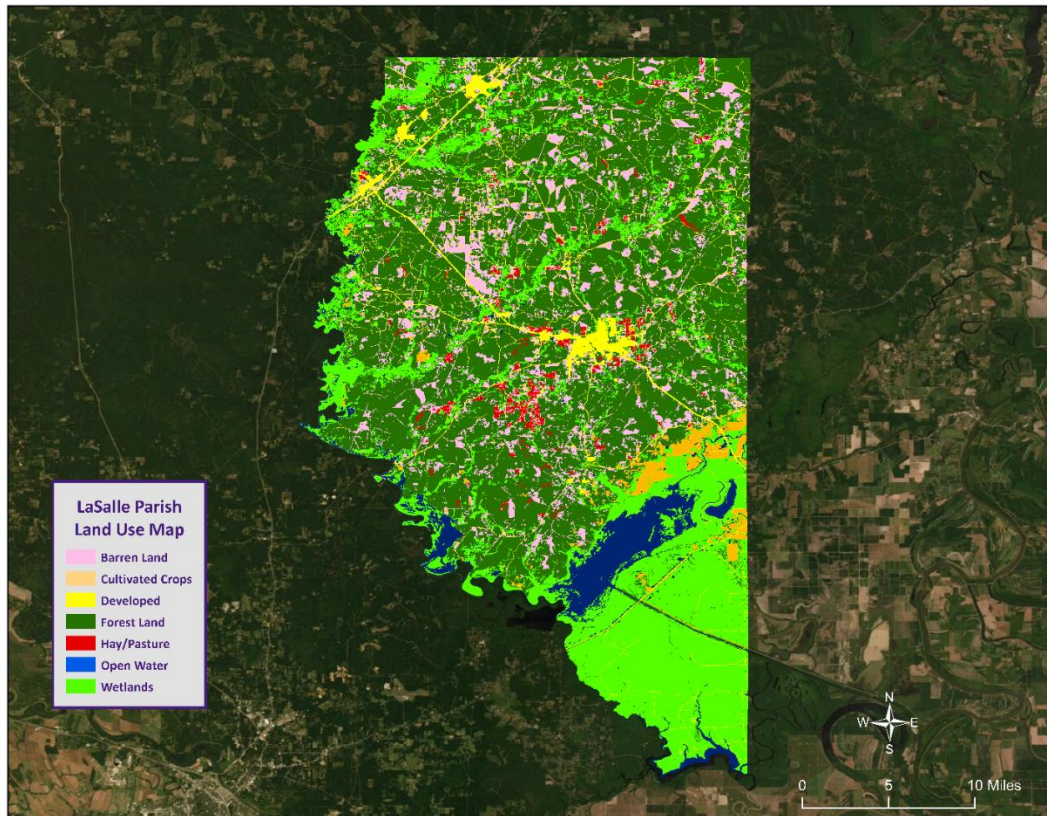


Figure 2-6: LaSalle Parish Land Use Map.
(Source: USGS Land Use Map)

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 2-13* 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 2-13: Palmer Drought Severity Index Classification and Range

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

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

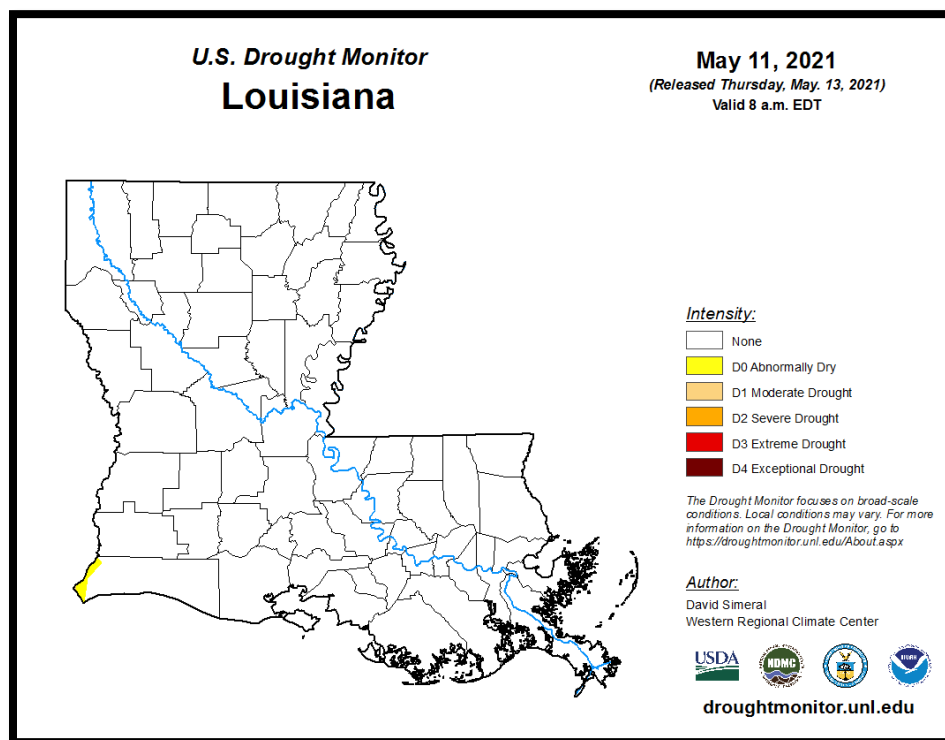


Figure 2-7: United States Drought Monitor for the State of Louisiana and its Parishes.
(Source: The National Drought Mitigation Center)

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 LaSalle Parish is on the agricultural community. The worst-case drought scenario for LaSalle Parish would be an extreme drought (D3).

Previous Occurrences / Extent

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

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

Date	Extents	Drought Magnitude	Estimated Damages
November to December 2016	Severe drought conditions (D2) expanded across portions of North Louisiana during November 2016, as monthly temperatures remained two to four degrees above normal and below normal rainfall continued. Widespread monthly rainfall amounts of only one to three inches fell across much of North Louisiana, although isolated higher amounts exceeding five inches did fall across portions of Central Caddo, Bossier, Webster, and Western Claiborne Parishes which did help to alleviate drought conditions. However, extreme (D3) drought conditions did develop by the third week of November across the southern and eastern sections of Northcentral Louisiana given the prolonged lack of rainfall since September.	D2-D3	\$0
January to February 2018	Severe (D2) drought conditions developed shortly after the start of the new year across much of Grant and LaSalle Parishes, in response to significant dryness that developed during the Fall of 2017. Only 7-8 inches of rain fell across these areas from September 1st to December 31st, which was 12-14 inches below normal, and was only a quarter to a third of normal. This not only resulted in significant topsoil moisture deficits, but also resulted in much below normal stream flows across the Little River bordering Eastern Grant and Western LaSalle Parishes. January rainfall amounts totaled between 3 and 5 inches, with 1-2 inches of this falling on January 27th. However, these cumulative monthly totals were only near to slightly below normal. While these rains eased topsoil moisture dryness, it did little to alleviate the severe drought conditions in place to end the month.	D2	\$0

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 17% for LaSalle Parish.

Estimated Potential Losses

According to the NCEI Storm Events Database, there have been five drought events which have impacted LaSalle Parish which resulted in limited to no damage to crops in the parish. When examining the drought hazard, the main impact will primarily be on the crops. The following table presents an analysis of agricultural exposure which are susceptible to droughts by type for LaSalle Parish.

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

Agricultural Exposure by Type for Drought				
Forestry	Hay	Mayhaws	Southern Peas	Watermelon
40,156,133	\$115,000	\$261,443	\$14,899	\$54,133

There have been no reported injuries or deaths as a direct result of drought in LaSalle 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 LaSalle Parish, all types of flooding events have historically been observed except for coastal flooding. For purposes of this assessment, ponding, flash flood, and urban flooding are considered to be flooding as a result of storm water from heavy precipitation thunderstorms.

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

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

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

expressions of flood probability. As such, the ASFPM also expresses the 100-year flood event as having a 25% chance of occurring over the life of a 30-year mortgage.

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

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

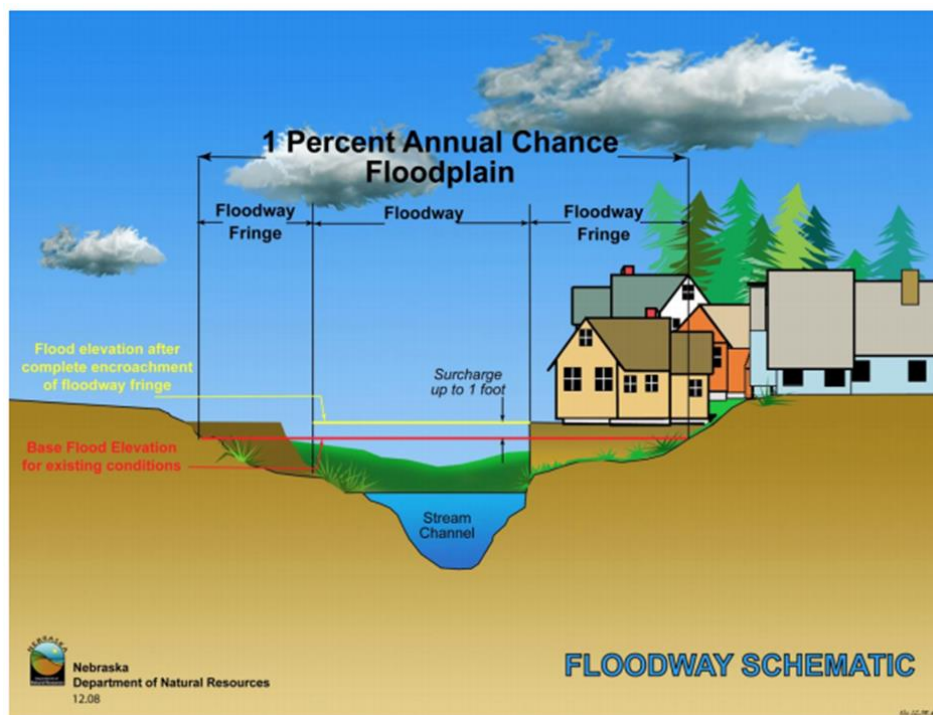


Figure 2-8: Schematic of 100-year Floodplain. The Special Flood Hazard Area (SFHA) extends to the end of the floodway fringe.

(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.

Per the repetitive loss data sheet for 2021, there are no repetitive loss structures within the boundaries of LaSalle Parish. *Figure 2-9* would show the approximate location of the structures if they were present within the parish, while *Figure 2-10* would show where the highest concentration of repetitive loss structures are located.

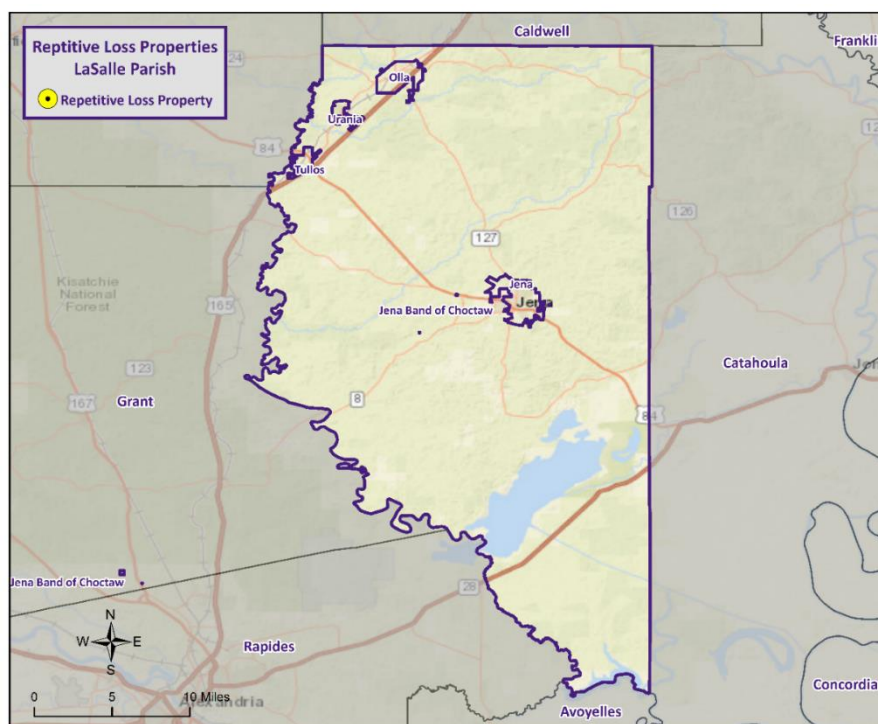


Figure 2-9: Repetitive Loss Properties in LaSalle Parish.

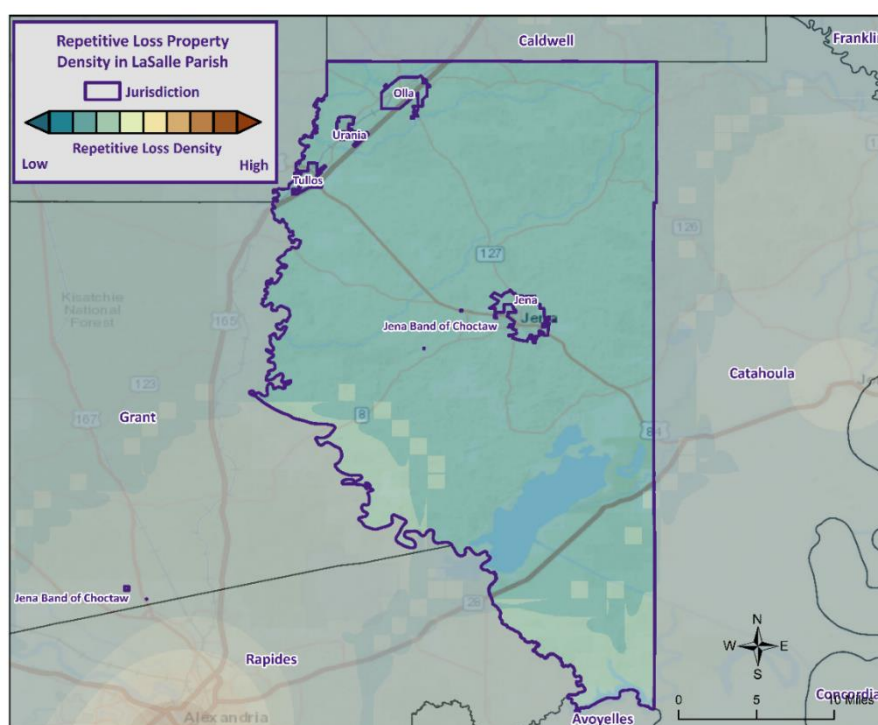


Figure 2-10: Repetitive Loss Property Densities in LaSalle Parish.

National Flood Insurance Program

Flood insurance statistics indicate that LaSalle Parish has 66 flood insurance policies with the NFIP, with total annual premiums of \$52,798. LaSalle Parish and the jurisdictions of Jena, Olla, and Urania are all participants in the NFIP. The Jena Band of Choctaw and the incorporated area of Tullos do not participate in the NFIP. While the jurisdiction of Tullos has preliminary flood maps, they haven't been formally adopted. The jurisdiction is very limited when it comes to personnel, funding, and resources needed to administer the NFIP program. The jurisdiction has determined that participation in the NFIP has little or no large benefit or impact for the residents or the town's economy. LaSalle 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 LaSalle Parish and its jurisdictions is provided in the tables to follow.

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

Location	No. of Insured Structures	Total Insurance Coverage Value	Annual Premiums Paid	Insurance Claims Filed Since 1978	Total Loss Payments
LaSalle Parish	59	\$9,278,100	\$44,766	170	\$1,521,476
Jena	4	\$1,311,000	\$5,913	8	\$540,570
Olla	3	\$900,000	\$2,119	0	\$0
Tullos	0	\$0	\$0	0	\$0
Urania	0	\$0	\$0	0	\$0
Jena Band of Choctaw	0	\$0	\$0	0	\$0
Total	66	\$11,489,100	\$52,798	178	\$2,062,046

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

CID	Community Name	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Date Joined the NFIP	Tribal
220112	La Salle Parish	5/6/1977	11/1/1985	11/1/85 (M)	11/1/1985	No
220334	Jena, Town of	12/24/1976	3/1/1987	3/1/87 (L)	3/1/1987	No
220343	Olla, Town of	11/12/1976	11/1/1985	11/1/85 (M)	8/8/1979	No
220397#	Urania, Town of	4/3/1979	-	4/3/1979	6/5/2013	No

According to the Community Rating System (CRS) list of eligible communities dated October 1, 2020, LaSalle Parish and the jurisdictions of Jena, Olla, Tullos, Urania, and Jena Band of Choctaw do not participate in the CRS program.

Threat to People

Just as with property damage, depth and velocity are major factors in determining the threat posed to people by flooding. It takes very little depth or velocity for flood waters to become dangerous. A car will float in less than two feet of moving water, and can be swept downstream into deeper waters, trapping

passengers within the vehicle. Victims of floods have often put themselves in perilous situations by entering flood waters that they believe to be safe, or by ignoring travel advisories.

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

Flooding in LaSalle 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 LaSalle 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.

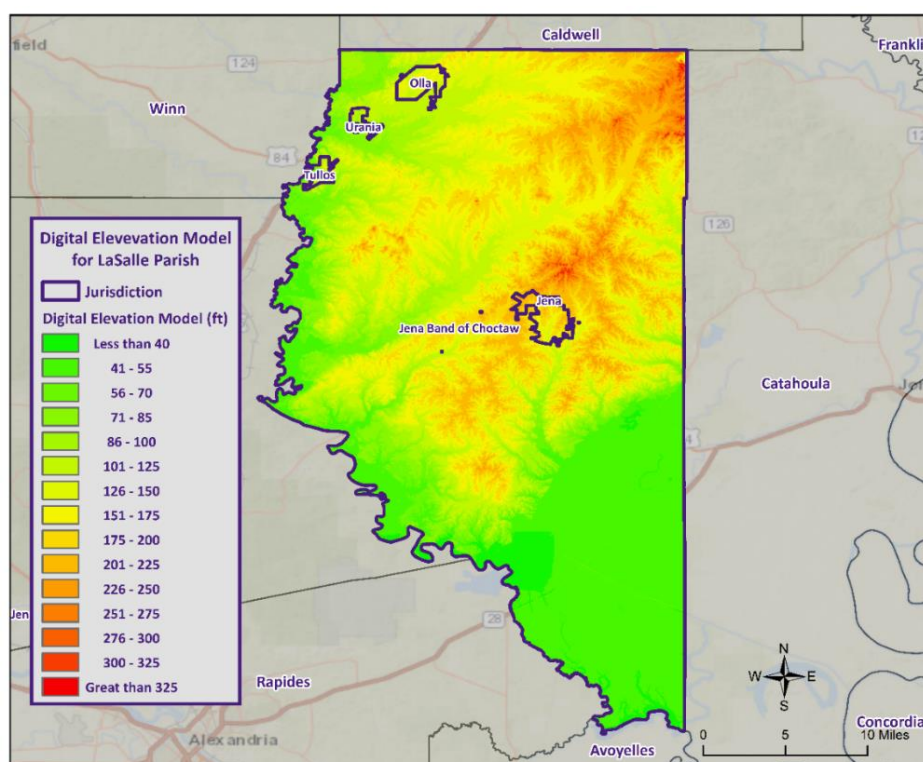


Figure 2-11: Elevation throughout LaSalle Parish.

The digital elevation model (DEM) in the figure above for LaSalle 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 40 feet (NAVD88) to approximately 325 feet (NAVD88). The highest elevations in the parish are approximately 325 feet (NAVD88), located in the unincorporated areas of the parish. These higher elevations are sporadic throughout the parish and are not common for the majority of the area. The other incorporated areas range in elevation from 92 to 162 feet (NAVD88), with the incorporated area of Jena averaging 92 feet (NAVD88), the incorporated area of Tullos averaging 125 feet (NAVD88), and the Jena Band of Choctaw areas averaging approximately 150 feet (NAVD88). The lowest elevations of the parish are located in the unincorporated areas of LaSalle Parish.

Location

LaSalle Parish has experienced significant flooding in its history and can expect more in the future. Many parts of the parish are located in the 100-year floodplain. Heavy rains have caused flooding in the unincorporated communities of Zenoria near Little River, the Pritchard area northeast of Catahoula Lake bounded on the east by Little River and Old River to the north, and the Catahoula Lake vicinity between Louisiana Highway 28 and Little River. Flooding along major transportation routes has occurred along U.S. Highway 84, Louisiana Highway 28, Pritchard Loop, and the parish road near Old River.

Based on previous flood events, the worst-case scenarios are based on several different types of flooding events. Storm water excesses and riverine flooding primarily affect the low-lying areas of the parish, and flood depths of up to three feet can be expected in the unincorporated areas of the parish. The incorporated areas of Jena, Olla, Tullos, Urania, and the Jena Band of Choctaw can expect flood depths from one to three feet.

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

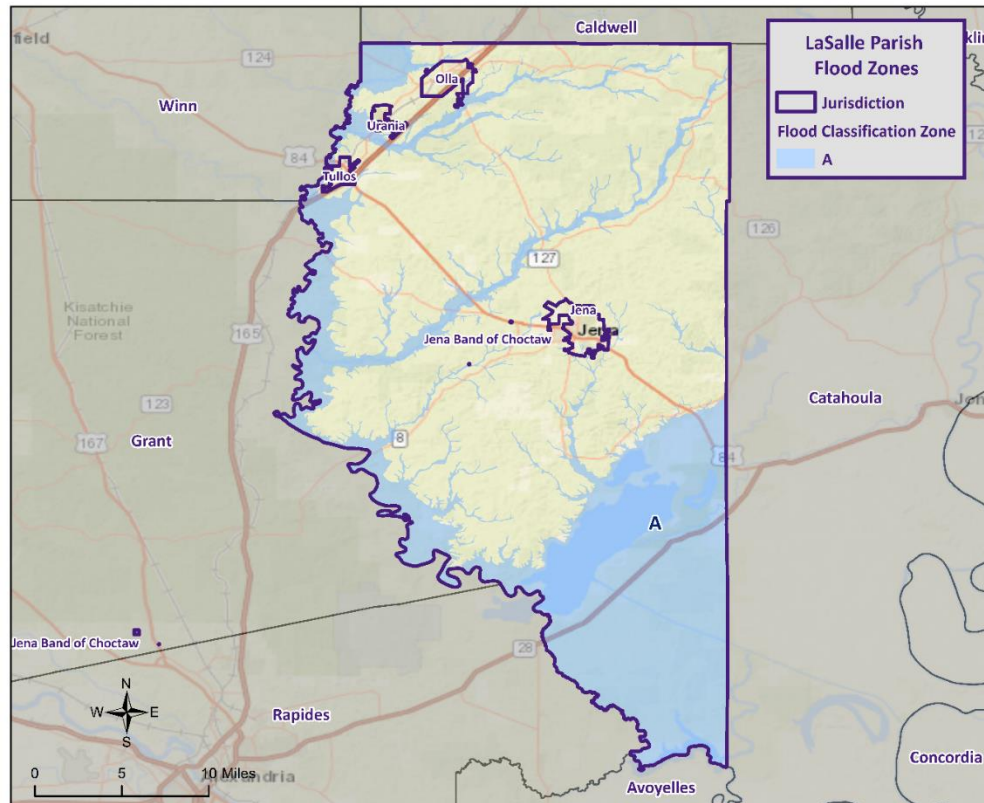


Figure 2-12: LaSalle Parish Areas within the Flood Zones.

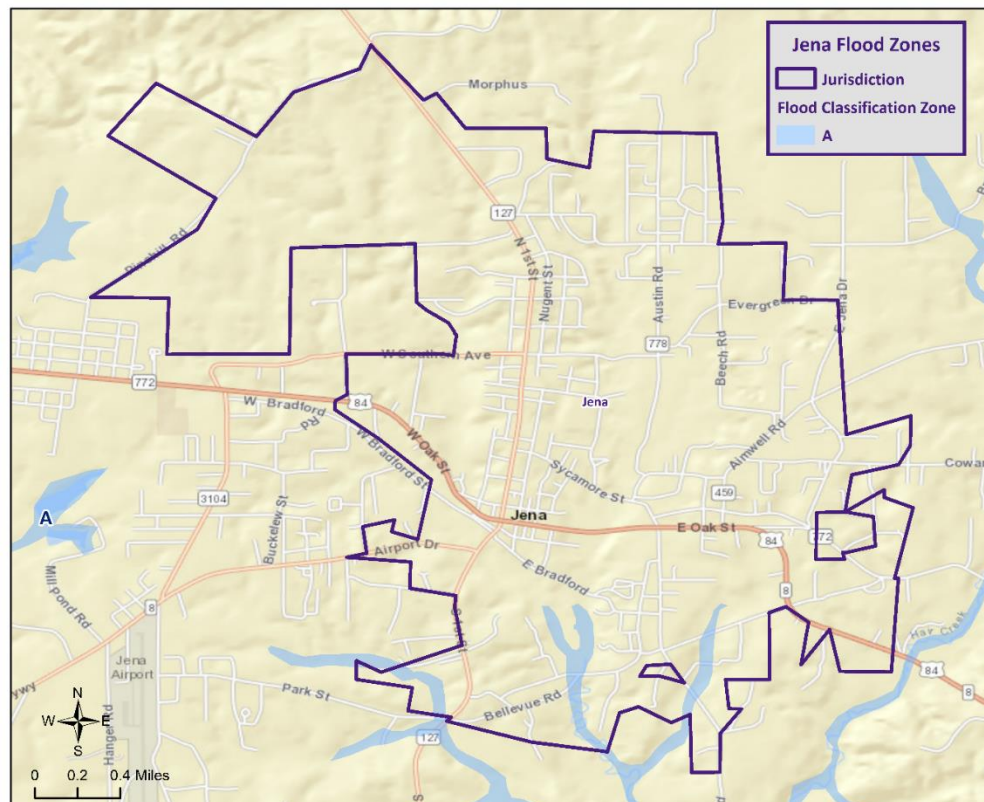


Figure 2-13: Jena Areas within the Flood Zones.

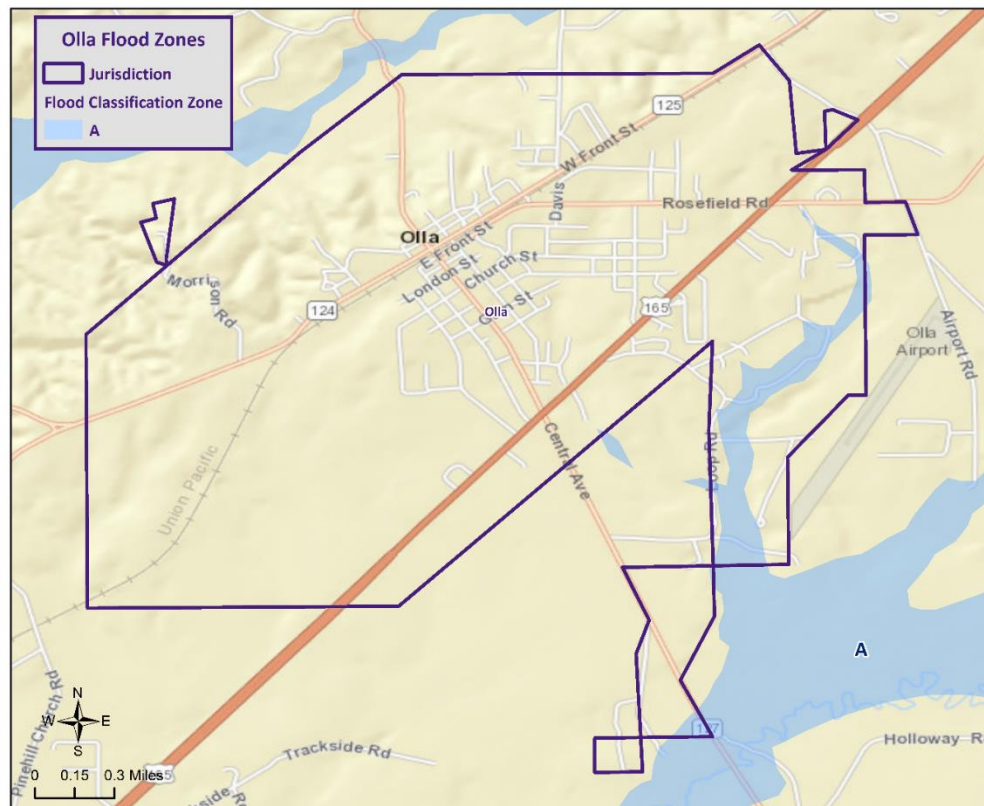


Figure 2-14: Olla Areas within the Flood Zones.

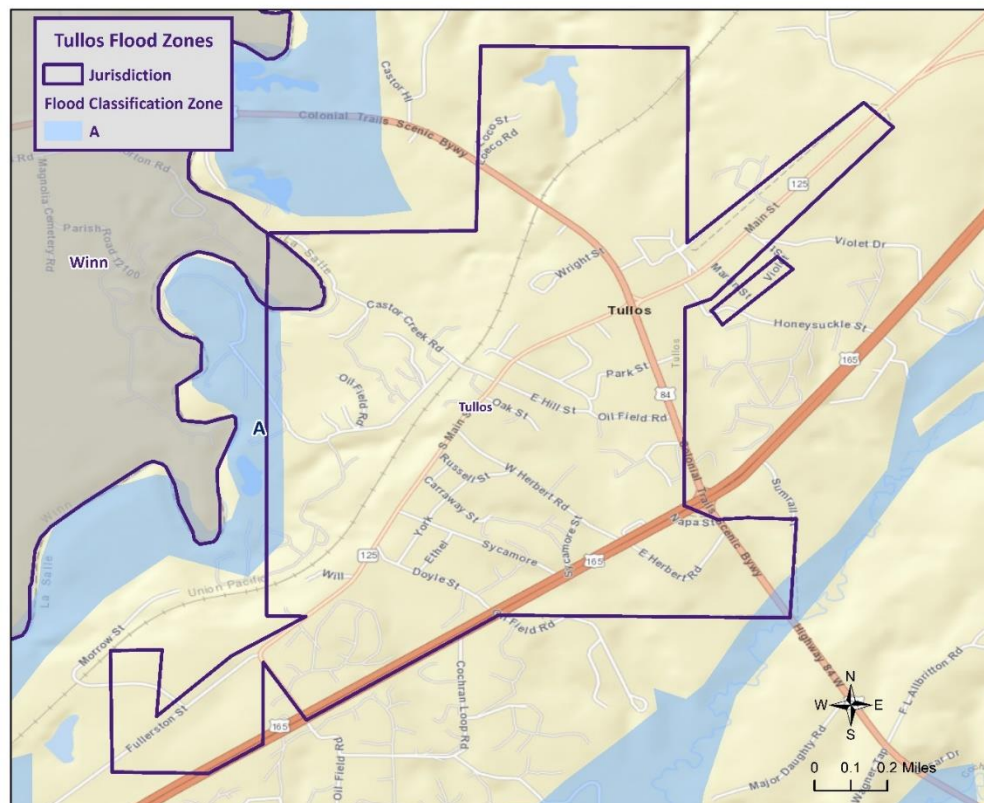


Figure 2-15: Tullos Areas within the Flood Zones.

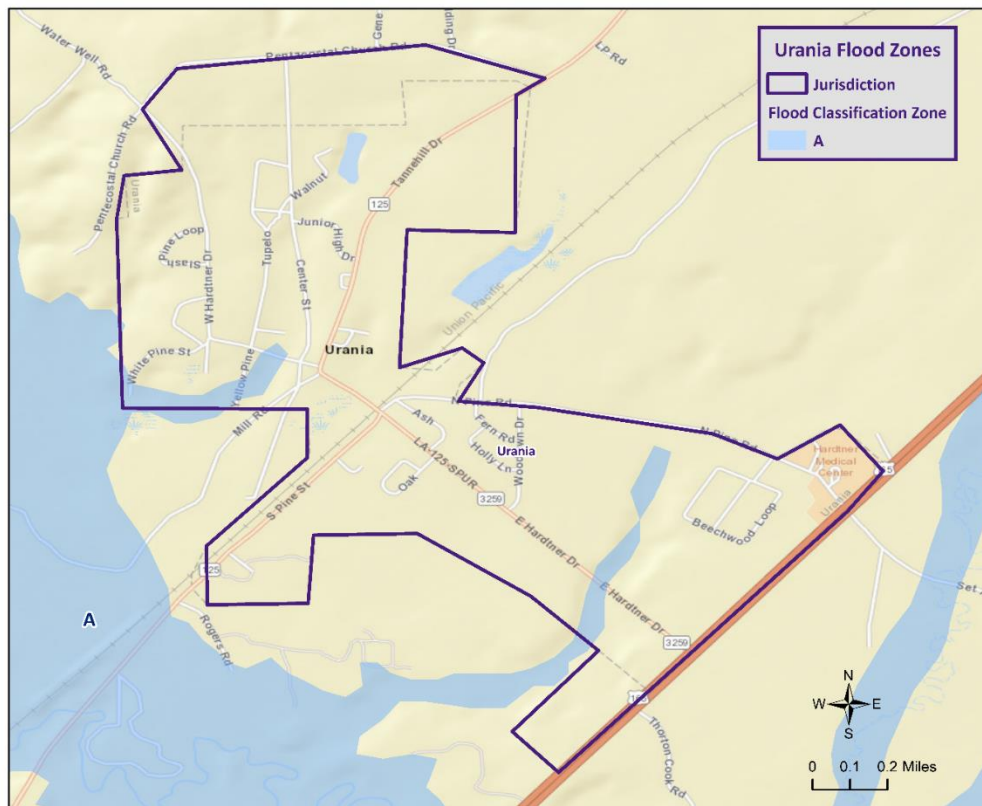


Figure 2-16: Urania Areas within the Flood Zones.



Figure 2-17: Jena Band of Choctaw Areas within the Flood Zones.

Previous Occurrences / Extents

Historically, there have been 24 flooding events that have caused significant flooding in LaSalle Parish and its jurisdictions between 1990 and 2020. Below is a brief synopsis of the flooding event which occurred since the last LaSalle Parish HMP Update in 2016.

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

Date	Extents	Type of Flooding	Estimated Damages	Location
April 2, 2017	Numerous roads were flooded and closed throughout LaSalle Parish.	Flash Flood	\$0	ROGERS
February 21, 2018	Highway 165 south of Tullos was flooded.	Flash Flood	\$0	TULLOS
March 29, 2018	High water covered numerous secondary roadways across La Salle Parish.	Flash Flood	\$0	ZENORIA
January 3, 2019	Moderate flooding developed along the Little River near Rochelle in Central Louisiana during the first week of January, as widespread rainfall amounts of six to in excess of nine inches fell over the basin during December 2018. The Little River rose above the 32 foot flood stage at 430 am on January 1st, and surpassed the 35 foot moderate flood stage at 1030 pm on the 3rd. The river crested at 39.4 feet at 8 am on January 6th, before gradually falling back below the moderate flood stage at 1 pm on the 8th. The flooding resulted in portions of Ebenezer Tab Road in the Zenoria community becoming inundated, with the high water along Highway 500 between Zenoria and the Grant Parish line. In addition, the flooding resulted in considerable lowland flooding of hunting camps near the river south of Zenoria.	Flood	\$0	ZENORIA
October 9, 2020	Highway 503 near the intersection of Zeagler Cutoff Road was flooded.	Flash Flood	\$0	SUMMERVILLE
October 9, 2020	High water on Taylor Chapel Road near Tobacco Road.	Flash Flood	\$0	SUMMERVILLE
October 9, 2020	High water covered Spring Creek Road.	Flash Flood	\$0	JENA
October 10, 2020	A high water rescue was needed after a home was flooded in Jena. Several other homes were evacuated from their homes due to rising flood waters.	Flash Flood	\$0	JENA

Frequency / Probability

The NCEI Storm Events Database identified 24 flooding events within the LaSalle Parish planning area since 1990. The table below shows the probability and return frequency for each jurisdiction.

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

Jurisdiction	Annual Probability	Return Frequency
LaSalle Parish (Unincorporated)	32%	1 event every 3 to 4 years
Jena	20%	1 event every 5 years
Olla	4%	1 event every 25 years
Tullos	4%	1 event every 25 years
Urania	4%	1 event every 25 years
Jena Band of Choctaw	4%	1 event every 25 years

Based on historical record, the overall flooding probability for the entire LaSalle Parish Planning area is 80% with 24 events occurring over a 30-year period.

Estimated Potential Losses

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

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

Jurisdiction	Estimated Total Losses from 100-Year Flood Event
LaSalle Parish (Unincorporated Area)	\$42,801,000
Jena	\$629,000
Olla	\$292,000
Tullos	\$23,000
Urania	\$67,000
Jena Band of Choctaw	\$0
Total	\$43,812,000

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

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

LaSalle Parish (Unincorporated)	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$40,000
Commercial	\$3,594,000
Government	\$131,000
Industrial	\$1,405,000
Religious / Non-Profit	\$721,000
Residential	\$36,696,000
Schools	\$214,000
Total	\$42,801,000

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

Jena	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$16,000
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$613,000
Schools	\$0
Total	\$629,000

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

Olla	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$10,000
Commercial	\$23,000
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$259,000
Schools	\$0
Total	\$292,000

Table 2-24: Estimated 100-year Flood Losses for Tullos by Sector.
(Source: Hazus)

Tullos	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$23,000
Schools	\$0
Total	\$23,000

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

Urania	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$67,000
Schools	\$0
Total	\$67,000

Threat to People

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

Table 2-26: 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
LaSalle Parish (Unincorporated)	8,249	7,902	95.8%
Jena	3,398	1,017	29.9%
Olla	1,385	510	36.8%
Tullos	385	57	14.8%
Urania	1,313	307	23.4%
Jena Band of Choctaw	160	0	0.0%
Total	14,890	9,793	65.8%

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

*Table 2-27: Vulnerable Populations Susceptible to a 100-year Flood Event in LaSalle Parish.
(Source: Hazus)*

LaSalle Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	7,902	95.8%
Persons Under 5 Years	508	6.4%
Persons Under 18 Years	1,870	23.7%
Persons 65 Years and Over	1,169	14.8%
White	6,734	85.2%
Minority	1,168	14.8%

*Table 2-28: Vulnerable Populations Susceptible to a 100-year Flood Event in Jena.
(Source: Hazus)*

Jena		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,017	29.9%
Persons Under 5 Years	55	5.4%
Persons Under 18 Years	212	20.9%
Persons 65 Years and Over	169	16.6%
White	856	84.1%
Minority	161	15.9%

*Table 2-29: Vulnerable Populations Susceptible to a 100-year Flood Event in Olla.
(Source: Hazus)*

Olla		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	510	36.8%
Persons Under 5 Years	49	9.6%
Persons Under 18 Years	141	27.7%
Persons 65 Years and Over	83	16.3%
White	490	96.0%
Minority	20	4.0%

Table 2-30: Vulnerable Populations Susceptible to a 100-year Flood Event in Tullos.
(Source: Hazus)

Tullos		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	57	14.8%
Persons Under 5 Years	4	6.5%
Persons Under 18 Years	12	21.6%
Persons 65 Years and Over	9	15.1%
White	54	94.6%
Minority	3	5.5%

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

Urania		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	307	23.4%
Persons Under 5 Years	10	3.3%
Persons Under 18 Years	40	13.0%
Persons 65 Years and Over	28	9.1%
White	210	68.3%
Minority	97	31.7%

Vulnerability

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

Thunderstorms

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

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

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

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

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

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

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

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

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

Hazard Description

Hailstorms

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

Table 2-32: 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 2-33: 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 2-34*.

Table 2-34: High Winds Categorized by Source, Frequency, and Duration.
(Source: *Making Critical Facilities Safe from High Wind, FEMA*)

High Winds Categories			
High Wind Type	Description	Relative Frequency in Louisiana	Relative Maximum Duration in Louisiana
Straight-line Winds	Wind blowing in straight line; usually associated with intense low-pressure area	High	Few-minutes – 1 day
Downslope Winds	Wind blowing down the slope of a mountain; associated with temperature and pressure gradients	N/A	N/A
Thunderstorm Winds	Wind blowing due to thunderstorms, and thus associated with temperature and pressure gradients	High (especially in the spring and summer)	~Few minutes – several hours
Downbursts	Sudden wind blowing down due to downdraft in a thunderstorm; spreads out horizontally at the ground, possibly forming horizontal vortex rings around the downdraft	Medium-to-High (~5% of all thunderstorms)	~15 – 20 minutes
Northeaster (nor'easter) Winds	Wind blowing due to cyclonic storm off the east coast of North America; associated with temperature and pressure gradients between the Atlantic and land	N/A	N/A
Hurricane Winds	Wind blowing in spirals, converging with increasing speed toward eye; associated with temperature and pressure gradients between the Atlantic and Gulf and land	Low-to-Medium	Several days
Tornado Winds	Violently rotating column of air from base of a thunderstorm to the ground with rapidly decreasing winds at greater distances from center; associated with extreme temperature gradient	Low-to-Medium	Few minutes – few hours

The only high winds of present concern are thunderstorm winds and downbursts. Straight-line winds are common but are a relatively insignificant hazard (on land) compared to other high winds. Downslope winds are common but relatively insignificant in the mountainous areas of Louisiana where they occur. Nor'easters are cyclonic events that have at most a peripheral effect on Louisiana, and none associated with high winds. Winds associated with hurricanes and tornadoes will be considered in their respective sections.

Table 2-35 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 2-35: 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 2-36: 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 LaSalle Parish and its jurisdictions are equally at risk for hailstorms. The worst-case scenario for hailstorms is hail up to a 2.75" diameter.

Previous Occurrences / Extents

Historically, there have been 48 hail incidents in LaSalle Parish. Hailstorm diameters have ranged from 0.75 inches to 2.75 inches per the National Climatic Data Center since 1990. The most frequently recorded hail sizes have been 0.75-inch in diameter. There have been two significant hailstorm events in LaSalle Parish since the 2016 LaSalle Parish HMP update. The table on the next page contains a brief synopsis of those events.

*Table 2-37: Previous Occurrences for Hailstorm Events since the 2016 Hazard Mitigation Plan Update.
(Source: NCEI Storm Events Database)*

Date	Hail Size (inches)	Property Damage	Crop Damage
January 21, 2017	1	\$0	\$0
April 6, 2019	1	\$0	\$0

Frequency

Hailstorms occur frequently within LaSalle Parish with an annual chance of occurrence calculated at 100% based on the records for the past 30 years (1990 - 2020). *Figure 2-18* displays the density of hailstorm events in LaSalle Parish, while *Figure 2-19* provides an overview of hailstorm size based on location.

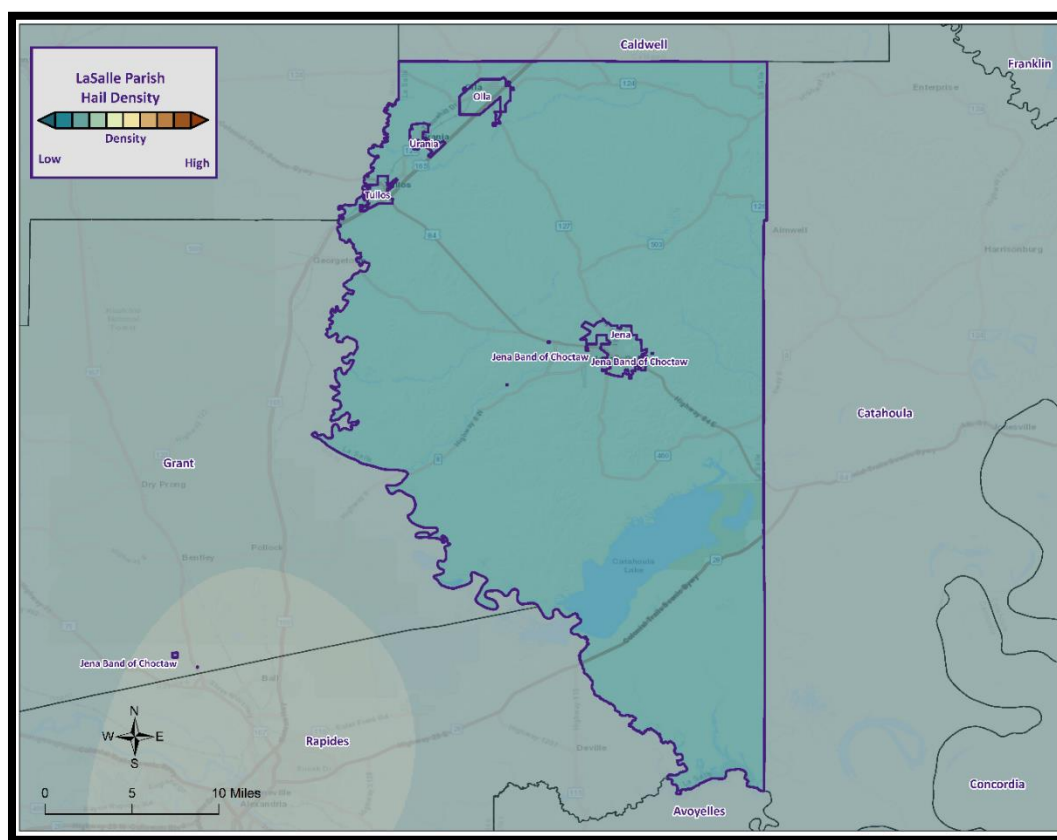


Figure 2-18: Density of Hailstorms by Diameter from 1950-2020.

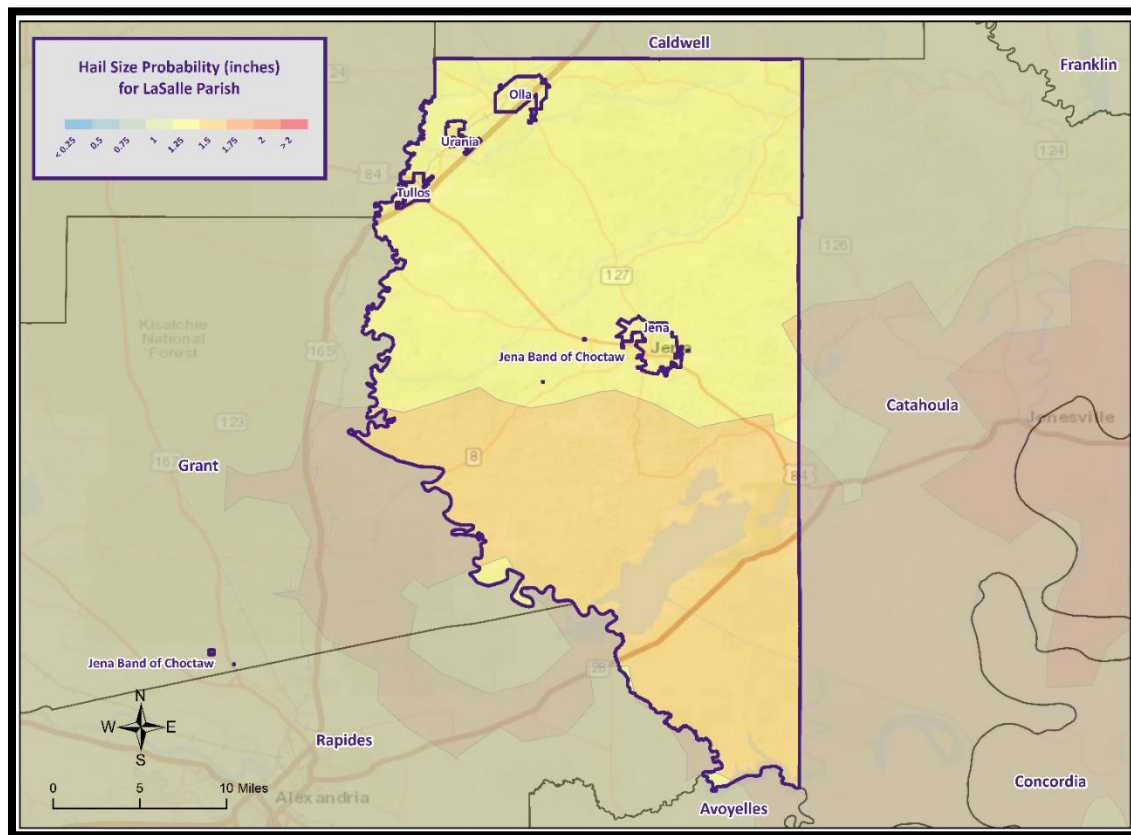


Figure 2-19: Hail Size Probability in Inches for LaSalle Parish.

Estimated Potential Losses

Since 1990, there have been 48 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 \$5,000. To estimate the potential losses of a hailstorm event on an annual basis, the total damages recorded for wind events was divided by the total number of years of available wind data in the NCEI Storm Events Database (1990 - 2020). This provides an annual estimated potential loss of \$167 and \$104 per event. The following table provides an estimate of potential property losses for LaSalle Parish:

Table 2-38: Estimated Annual Losses LaSalle Parish and its Jurisdictions Resulting from Hailstorms.

Estimated Potential Annual Losses from Hailstorms					
Unincorporated Area	Jena	Olla	Tullos	Urania	Jena Band of Choctaw
\$92	\$38	\$16	\$4	\$15	\$2

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

Vulnerability

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

High Winds

Location

Because high winds are a meteorological phenomenon that can occur anywhere, the entire planning area for LaSalle Parish is equally at risk from high winds. The worst-case scenario for thunderstorm high wind is wind speeds of approximately 63 mph.

Previous Occurrences / Extents

Historically, there has been one thunderstorm high wind event in LaSalle Parish. The high wind event had a maximum windspeed of 63 mph per the National Climatic Data Center since 1990. There have been no high wind speeds events which impacted the LaSalle Parish Planning area since the 2016 LaSalle Parish HMP update.

Frequency

High winds are a fairly uncommon occurrence within LaSalle Parish and its jurisdictions with an annual chance of occurrence calculated at 3% based on the records for the past 30 years (1990 - 2020). *Figure 2-20* displays the thunderstorm wind speed probability for LaSalle Parish and its jurisdictions.

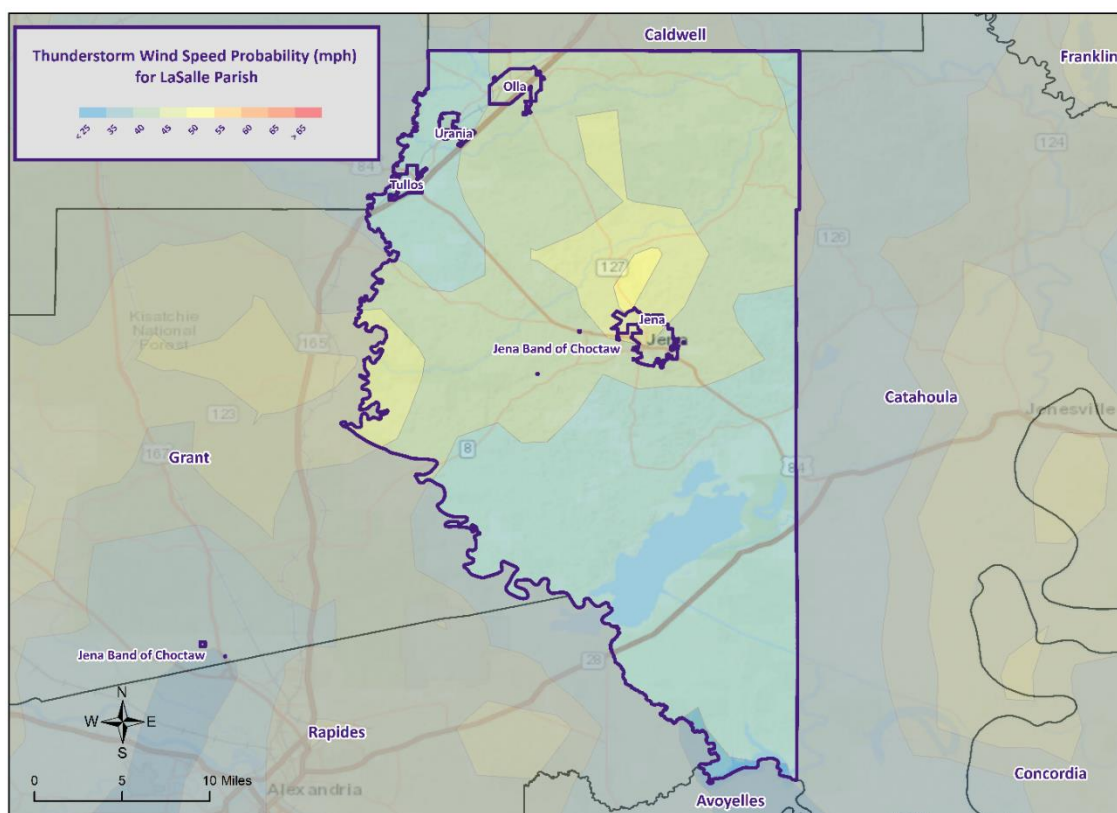


Figure 2-20: Thunderstorm High Wind Speed Probability in Miles Per Hour for LaSalle Parish.

Estimated Potential Losses

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

Table 2-39: Estimated Annual Property Losses in LaSalle Parish resulting from Wind Damage.

Estimated Potential Annual Losses from High Winds					
Unincorporated Area	Jena	Olla	Tullos	Urania	Jena Band of Choctaw
\$18	\$8	\$3	\$1	\$3	< \$1

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

Vulnerability

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

Lightning

Location

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

Previous Occurrences / Extent

Historically, there has been one lightning event in LaSalle Parish and its jurisdictions between the years 1990 and 2020. Since the last HMP update, there has been no significant lightning events within the boundaries of LaSalle Parish.

Frequency

Lightning can strike anywhere and is produced by every thunderstorm, so the chance of lightning occurring in LaSalle 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. LaSalle Parish experienced 15 significant lightning events between the years 1990 and 2020 resulting in a 50% annual chance of occurrence.

Estimated Potential Losses

Since 1990, there has been one significant lightning event that has resulted in property damages according to NCEI Storm Events Database. The total property damages associated with this storm has totaled approximately \$1,000. To estimate the potential losses of a lightning event on an annual basis, the total damages recorded for lightning events was divided by the total number of years of available lightning data

in the NCEI Storm Events Database (1990-2020). This provides an annual estimated potential loss of \$33 and \$1,000 per event. The following tables provide an estimate of potential property losses for LaSalle Parish:

Table 2-40: Estimated Annual Property Losses in LaSalle Parish resulting from Lightning Damage.

Estimated Potential Annual Losses from Lightning					
Unincorporated Area	Jena	Olla	Tullos	Urania	Jena Band of Choctaw
\$18	\$8	\$3	\$1	\$3	< \$1

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

Vulnerability

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

Tornadoes

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

Since February 1, 2007, the Enhanced Fujita (EF) Scale has been used to classify tornado intensity. The EF Scale classifies tornadoes based on their damage pattern rather than wind speed; wind speed is then derived and estimated. This contrasts with the Saffir-Simpson scale used for hurricane classification, which is based on measured wind speed. *Table 2-41* 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 2-41: 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 2-42: Fujita and Enhanced Fujita Tornado Damage Scale.

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

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

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

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

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

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

Location

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

Previous Occurrences / Extent

The NCEI Storm Events Database reports a total of 18 tornadoes or waterspouts occurring within the boundaries of LaSalle Parish since 1990 ranging in extent from F0 to F4 under the Fujita Scale and EF0 to EF2 on the Enhanced Fujita Scale. LaSalle 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 LaSalle Parish was a F3 tornado which occurred on May 19, 1983. The tornado touched down near the town of Urania proceeding to the town of Olla before dissipating near the town of Kelly in Caldwell Parish. The F3 tornado caused damage to approximately 70% of the buildings in its path. Additionally, nearly 800 homes in the town of Olla sustained major damage with 25 being destroyed. The F3 tornado was responsible for over \$25 million in damage. The tornado responsible for the most injuries and fatalities occurred on December 23, 2004 when an F3 tornado injured 20 people.

Since the 2016 HMP Update, seven tornadoes have occurred within the boundaries of LaSalle Parish. Below is a list and brief description of the impact for the events.

Table 2-43: Historical Tornadoes in LaSalle Parish with Locations since the 2016 Update.

Date	Impacts	Property Damage	Location	Magnitude
January 21, 2017	0.16 mile path with a width of 100 yards. An EF-1 tornado with maximum estimated winds between 86-95 mph touched down just west of Parish Road 3104 near the intersection of Highway 8 on the west side of Jena, snapping and uprooting several trees and tearing the roof and a portion of the wall off of a wooden outbuilding. The tornado also ripped some shingles off of a church across the street with debris breaking a few windows from the church as well. The tornado also ripped a canopy off of a gas station on Highway 8, tossing it 40-50 yards down the road. The worst of the structural damage came to a Conoco office building on Highway 8, where much of the front brick facade collapsed. Several windows from this office building were shattered as well. The tornado continued southeast behind the office building where it heavily damaged a couple of metal storage buildings. Several trees were also snapped downstream from these storage buildings before the tornado lifted north of Park Street.	\$90,000	MIDWAY	EF0
April 2, 2017	5.55 mile path with a width of 1636 yards. An EF-2 tornado with maximum winds estimated between 115-125 mph touched down along White Sulphur Springs Road, primarily snapping and uprooting trees. However, several outbuildings lost siding or portions of their roofs, and several homes along Hurricane Creek Road and Searcy Eden Road had roof damage. The EF-2 damage was found in two locations...the first being along White Sulphur Springs Road where power poles were snapped in two. The second area was where an oil derrick toppled along Highway 8. The metal was severely bent, and a concrete anchor block was pulled out of the ground. A second and very rusty oil derrick not only collapsed, but crumbled as well.	\$100,000	WHITE SULPHUR SPGS	EF2
April 2, 2017	13.66 mile path with a width of 2252 yards. An EF-2 tornado with maximum estimated winds between 125-135 mph touched down south southwest of the Rogers community along Walker Ferry Road, snapping and uprooting trees as well as power poles along Highway 127. As this tornadic supercell moved to the north northeast, it cut a clear path through the forest to the Belah community, snapping and uprooting the mature trees and bending the young trees. The Belah community suffered widespread	\$1,000,000	ROGERS	EF2

Date	Impacts	Property Damage	Location	Magnitude
	damage, with snapped and uprooted trees as well as snapped power poles. Several cars and homes were damaged by falling trees as well as flying debris. Several homes as well as the local school had roof damage. The EF-2 damage not only occurred in the Belah community, where several power poles were snapped in either two or three pieces, but also in Trout, where a boat business collapsed in on itself. Between the Belah community and Trout, the tornado cut another clear path through the forest, snapping and uprooting more trees. This tornado appeared to have lifted just north of Highway 84 in Trout.			
April 2, 2017	1.09 mile path with a width of 440 yards. This EF-2 tornado, with maximum estimated winds of 125-135 mph, touched down from the same tornadic supercell that produced the EF-2 tornado that hit the Rogers, Belah, and Trout communities. This tornado touched down just west of Highway 127, before tracking north northeast, snapping and uprooting numerous trees. There was widespread damage just east of Highway 127 to Highway 503 and Jack Lee Road. Several homes sustained damage due to flying debris and falling trees, including at least one mobile home that was nearly destroyed by falling trees. One well constructed home lost its supports for the carport, collapsing the carport on top of two vehicles. Another well-built home which sat atop of a pier and beam structure lifted and shifted nearly 10 feet off of the pier and beam structure. A third well-built home along Jack Lee Road lost its roof, with only four brick walls remaining. The snapped power poles and the damage to the well-built homes justified the EF-2 rating. Some roads remained impassable at the time of the survey.	\$600,000	SUMMERVILLE	EF2
April 2, 2017	3.25 mile path with a width of 880 yards. This EF-2 tornado, with maximum estimated winds between 110-120 mph touched down along Rock Hill Hunting Road, snapping numerous trees. As it moved northeast along Highway 459, it snapped power poles as well as numerous trees. An extensive number of trees were snapped or uprooted along Grady and Lolita Roads. Several home suffered roof damage, and a few outbuildings were damaged or destroyed. A mobile home lost its awning along Grady Road. This tornado continued into Catahoula Parish, where additional damage was found in and northeast of the Aimwell community.	\$225,000	JENA	EF2

Date	Impacts	Property Damage	Location	Magnitude
October 31, 2018	14.67 mile path with a width of 200 yards. The La Salle Parish Office of Homeland Security and Emergency Preparedness estimates that 82 homes were damaged, eleven mobile homes were destroyed, as well as damage to two business and one public building. The Trout Post Office received minor damage as well as Ganey Equipment and a Methodist Church.	\$500,000	WHITE SULPHUR SPGS	EF2
April 25, 2019	8.77 mile path with a width of 700 yards. An EF-2 tornado with maximum estimated winds near 125 mph touched down near the intersection of June Lane and Searcy Eden Road, where it uprooted and snapped some trees and then proceeded northeast. The tornado paralleled Searcy Eden Road to LA Highway 500, where it uprooted and snapped several trees along its path. Just before reaching LA Highway 500, the tornado strengthened to its strongest where it tore off the right half of the roof of a well-constructed home and completely destroyed its carport. The tornado weakened slightly as it crossed LA Highway 500 where it uprooted and snapped numerous trees, some of which fell on a number of mobile homes. The tornado continued northeast where it crossed Highway 84 uprooting several more trees. It then weakened further while it paralleled Zimmer Creek Road and Parish Road 285. Additional tree damage was noted across these areas, but was more widely scattered in nature. The tornado crossed LA Highway 127 just south of the community of Summerville where it uprooted a few more trees, including one that fell onto the Summerville Baptist Church before it lifted just south of LA Highway 503 east of Summerville. The church steeple was also blown off. One home was destroyed by the tornado and seven homes suffered minor damage. In addition, four mobile homes were destroyed and three mobile homes suffered minor damage.	\$350,000	EDEN	EFO

Frequency / Probability

Tornadoes occur frequently within LaSalle Parish and its jurisdictions with an annual chance of occurrence calculated at 60% based on the records for the past 30 years (1990 - 2020). On the next page, *Figure 2-21* displays the density of tornado touchdowns in LaSalle Parish and neighboring parishes.

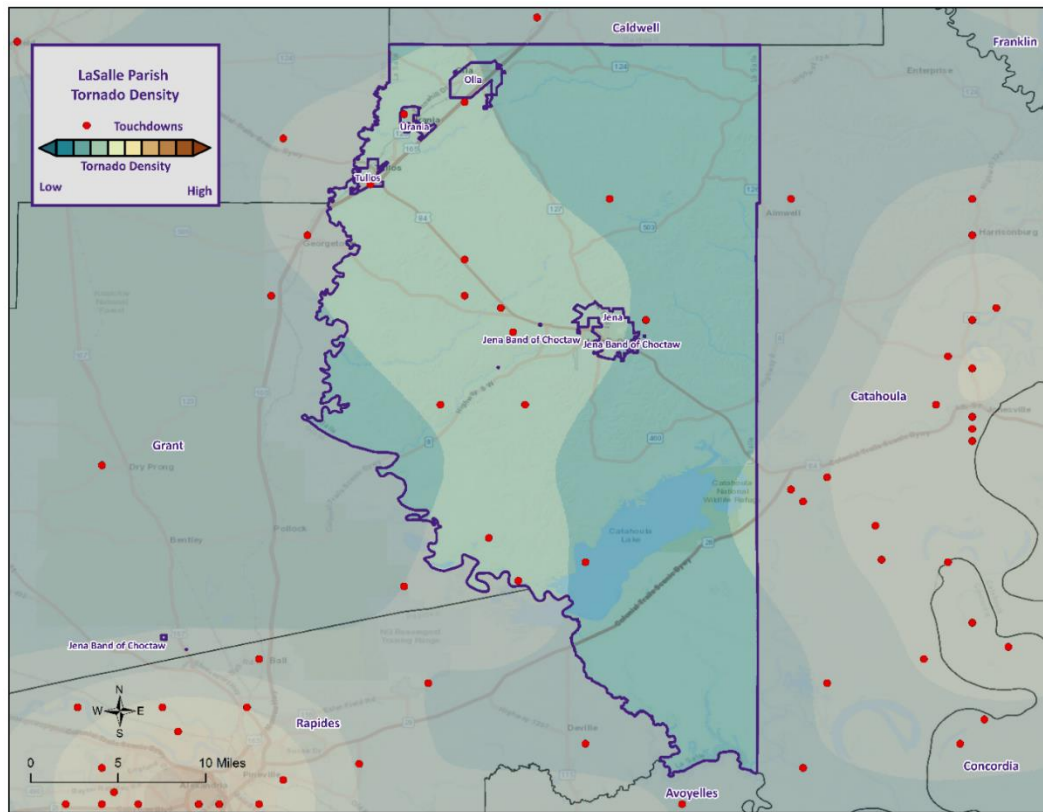


Figure 2-21: Location and Density of Tornadoes to Touchdown in LaSalle Parish.
(Source: NOAA/SPC Severe Weather Database)

Estimated Potential Losses

According to the NCEI Storm Events Database, there have been 18 tornadoes that have caused some level of property damage. The total damage from the actual claims for property is approximately \$9,755,000 with an average cost of \$541,944 per tornado event. When annualizing the total cost over the 30-year record, total annual losses based on tornadoes are estimated to be \$325,167. The following table provides an annual estimate of potential losses for LaSalle Parish.

Table 2-44 Estimated Annual Losses for Tornadoes in LaSalle Parish.

Estimated Potential Annual Losses from Tornadoes					
Unincorporated Area	Jena	Olla	Tullos	Urania	Jena Band of Choctaw
\$180,141	\$74,205	\$30,246	\$8,408	\$28,673	\$3,494

On the next page, *Table 2-45* presents an analysis of building exposure that are susceptible to tornadoes by general occupancy type for LaSalle Parish along with the percentage of building stock that are mobile homes.

Table 2-45: Building Exposure by General Occupancy Type for Tornadoes in LaSalle Parish.
(Source: Hazus)

Building Exposure by General Occupancy Type for Tornadoes (\$1,000)							
Residential	Commercial	Industrial	Agricultural	Religion	Government	Education	Mobile Homes (%)
1,125,404	119,156	34,667	1,632	23,087	8,909	7,293	19.5%

The Parish has suffered through a total of 18 events in which tornadoes or waterspouts have accounted for 20 injuries and one fatality during this 30-year period.

In accessing the overall risk to population, the most vulnerable population throughout the parish are those residing in manufacturing housing. Approximately 19.5% of all housing in LaSalle Parish consists of manufactured housing. The location and density of manufactured houses can be seen in *Figure 2-22*.

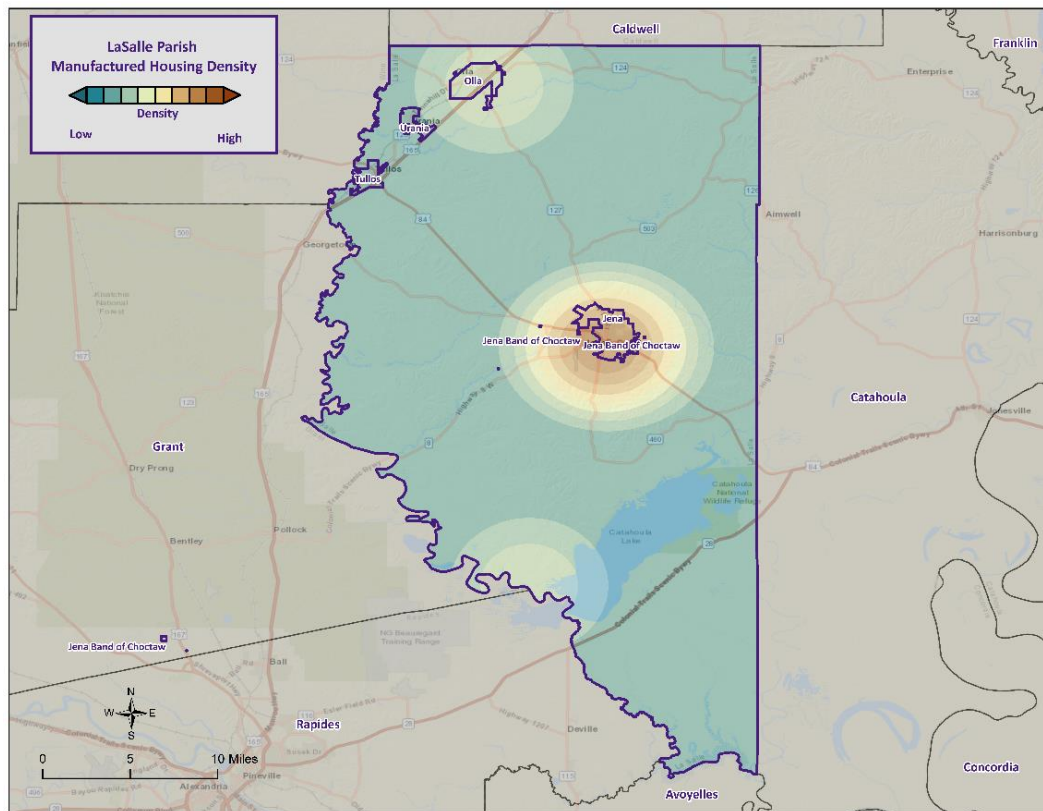


Figure 2-22: Location and Approximate Number of Units in Manufactured Housing Locations throughout LaSalle Parish.

Vulnerability

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

Tropical Cyclones

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

Table 2-46: 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 entire 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 LaSalle Parish planning area. The worst-case scenario for a tropical cyclone event in LaSalle Parish is a Category 1 Hurricane.

Previous Occurrences / Extents

LaSalle Parish has experienced 7 major tropical cyclone events since 2002. Hurricane Rita has been by far the worst hurricane to impact LaSalle Parish in recorded history. The table on the next page provides a list of tropical cyclones which have impacted LaSalle Parish since 2002.

Table 2-47: Historical Tropical Cyclone Events in LaSalle Parish from 2002 – 2020.

Date	Name	Storm Type at Time of Impact
2005	Rita	Hurricane
2008	Gustav	Tropical Storm
2008	Ike	Tropical Storm
2011	Lee	Tropical Storm
2012	Isaac	Tropical Storm
2020	Laura	Tropical Storm
2020	Delta	Tropical Storm

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

Tropical Storm Laura (2020)

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

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

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

With little change in strength, Laura made landfall at Cameron, Louisiana around 1 AM CDT August 27th, with sustained winds of 150 mph (130 knots) and a minimum central pressure of 938 millibars (27.70 inches of mercury). Laura was the strongest hurricane to strike Southwest Louisiana since records began in 1851. Laura slowly weakened after landfall but maintained major hurricane status throughout its passage across Cameron, Calcasieu, and southern Beauregard Parishes, and category 2 status across northern Beauregard and Vernon parishes as daybreak approached on August 27th. Laura finally weakened below hurricane strength by Noon as it was crossing I-20 in North Louisiana. With this being the strongest hurricane to affect Southwest Louisiana, wind damage to buildings and trees was major to catastrophic across Cameron and Calcasieu parishes, with considerable damage across Beauregard and Vernon parishes where the core of the hurricane passed.

The National Weather Service in Lake Charles, Louisiana recorded a station record highest peak wind gust of 116 knots (133 mph) at 1:42 AM CDT before the Automated Surface Observing System (ASOS) wind equipment failed. However, the ASOS barometer sensor that was safely within the NWS building (which

received very little damage) recorded a station record minimum sea level pressure of 956 millibars (28.23 inches of mercury) at 2:20 AM CDT when the eye of Hurricane Laura passed nearly overhead.

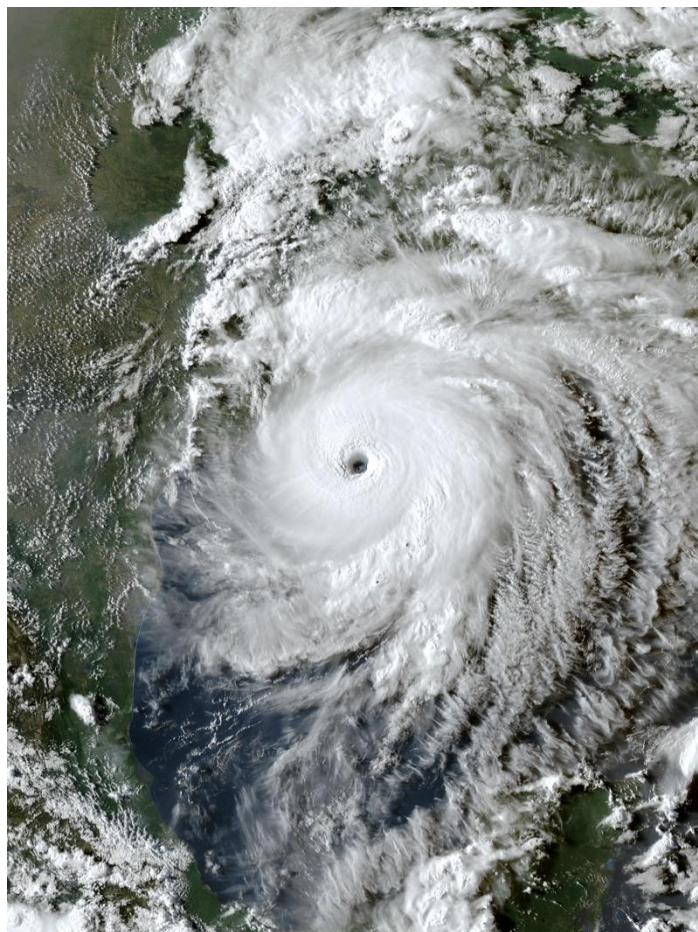


Figure 2-23: Hurricane Laura in the Gulf Coast Area.

(Source: NOAA)

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

In LaSalle Parish, damage surveys observed sporadic to scattered tree damage throughout the parish with a few incidents of structural damage which was not caused by downed trees. The Jena High School Gymnasium lost a significant portion of its roofing material and there was some damage to signs in front of the school. The awning covering a portion of the parking lot of a local Jena business was destroyed. Tree fall generally ranged from the northwest to northeast as the center of circulation passed a little to the west of LaSalle Parish. Storm survey estimated sustained winds between 50 to 60 mph with peak wind gusts in the 60 to 70 mph range.

Tropical Storm Delta (2020)

Hurricane Delta was the record-tying fourth named storm of 2020 to strike Louisiana, as well as the record-breaking tenth named storm to strike the United States in that year. The twenty-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.

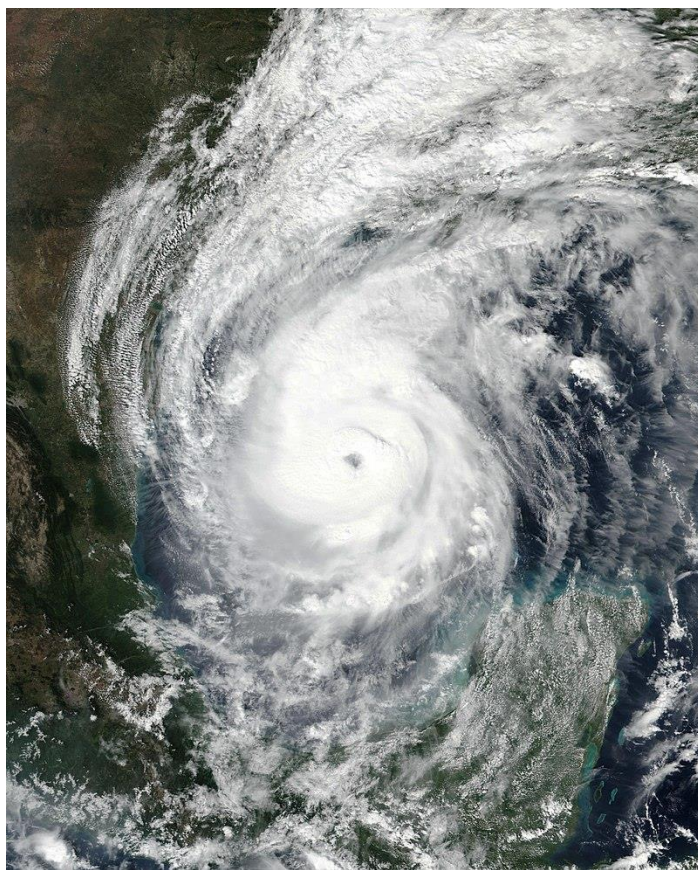


Figure 2-24: Hurricane Delta in the Gulf Coast Area.

(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 LaSalle Parish, Delta downed several trees and powerlines. Two minor injuries were reported when a vehicle struck a downed tree in Jena. Power outages were experienced by over 80% of the parish residents. Flooding was reported near Jena on Highway 503, Tobacco Road, and on Spring Creek Road. A high-water rescue was performed after water flooded a home in Jena. Several other homes were evacuated due to rising flood waters.



Figure 2-25: Hurricane Delta in the Gulf Coast Area.
(Source: NOAA)

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

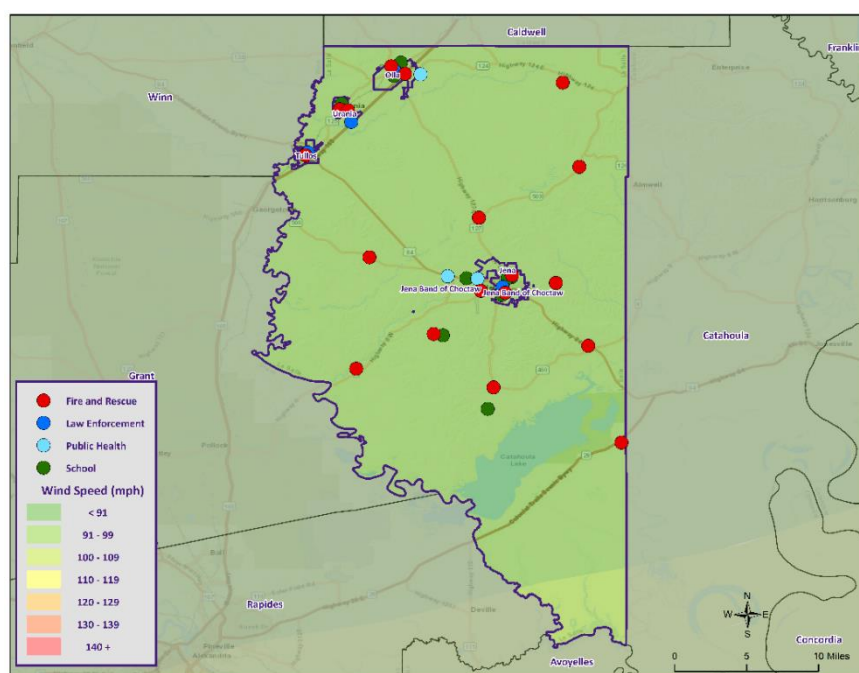


Figure 2-26: Winds Zones for LaSalle Parish in Relation to Critical Facilities

Frequency / Probability

Tropical cyclones are large natural hazard events that regularly impact LaSalle Parish. The annual chance of occurrence for a tropical cyclone is estimated at 39% for LaSalle Parish with 7 events occurring within 18 years (2002 to 2020). The tropical cyclone season for the Atlantic Basin is from June 1st through November 30th, with most of the major hurricanes (Saffir-Simpson Categories 3, 4, & 5) occurring between the months of August and October. Based on geographical location alone LaSalle 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 below shows the total economic losses that would result from this occurrence.

*Table 2-48: Total Estimated Losses for a 100-Year Hurricane Event
(Source: Hazus)*

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event
LaSalle Parish (Unincorporated)	\$1,329,690
Jena	\$547,388
Olla	\$223,096
Tullos	\$61,933
Urania	\$211,563
Jena Band of Choctaw	\$25,711
Total	\$2,399,380

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

*Table 2-49: Ratio of Total Losses to Total Estimated Value of Assets for LaSalle Parish
(Source: Hazus)*

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event	Total Estimated Value of Assets	Ratio of Estimated Losses to Total Value
LaSalle Parish (Unincorporated)	\$1,329,690	\$767,976,000	0.2%
Jena	\$547,388	\$354,259,000	0.2%
Olla	\$223,096	\$123,088,000	0.2%
Tullos	\$61,933	\$29,262,000	0.2%
Urania	\$211,563	\$45,125,000	0.5%
Jena Band of Choctaw	\$25,711	\$438,000	5.9%

Based on the Hazus Hurricane Model, estimated total losses for LaSalle Parish and its jurisdictions ranged from 0.2% to 5.9% of the total estimated value of all assets.

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

*Table 2-50: Estimated Losses in Unincorporated LaSalle Parish for a 100-Year Hurricane Event
(Source: Hanus)*

LaSalle Parish (Unincorporated)	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$113
Commercial	\$7,001
Government	\$604
Industrial	\$1,960
Religious / Non-Profit	\$1,374
Residential	\$1,318,041
Schools	\$597
Total	\$1,329,690

*Table 2-51: Estimated Losses in Jena for a 100-Year Hurricane Event
(Source: Hanus)*

Jena	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$38
Commercial	\$2,884
Government	\$205
Industrial	\$792
Religious / Non-Profit	\$531
Residential	\$542,939
Schools	\$0
Total	\$547,388

*Table 2-52: Estimated Losses in Olla for a 100-Year Hurricane Event
(Source: Hanus)*

Olla	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$16
Commercial	\$1,175
Government	\$0
Industrial	\$323
Religious / Non-Profit	\$216
Residential	\$221,298
Schools	\$68
Total	\$223,096

Table 2-53: Estimated Losses in Tullos for a 100-Year Hurricane Event
(Source: Hazus)

Tullos	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$327
Government	\$0
Industrial	\$90
Religious / Non-Profit	\$0
Residential	\$61,516
Schools	\$0
Total	\$61,933

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

Urania	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$1,114
Government	\$79
Industrial	\$306
Religious / Non-Profit	\$205
Residential	\$209,794
Schools	\$64
Total	\$211,563

Table 2-55: Estimated Losses in Jena Band of Choctaw for a 100-Year Hurricane Event
(Source: Hazus)

Jena Band of Choctaw	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$136
Government	\$10
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$25,565
Schools	\$0
Total	\$25,711

Threat to People

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

Table 2-56: Number of People Susceptible to a 100-Year Hurricane Event in LaSalle Parish

(Source: Hazus)

Number of People Exposed to Hurricane Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
LaSalle Parish (Unincorporated)	8,249	8,249	100%
Jena	3,398	3,398	100%
Olla	1,385	1,385	100%
Tullos	385	385	100%
Urania	1,313	1,313	100%
Jena Band of Choctaw	160	160	100%
Total	14,890	14,890	100%

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

Table 2-57: Vulnerable Populations in Unincorporated LaSalle Parish for a 100-Year Hurricane Event

(Source: Hazus)

LaSalle Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	8,249	100.0%
Persons Under 5 Years	530	6.4%
Persons Under 18 Years	1,953	23.7%
Persons 65 Years and Over	1,221	14.8%
White	7,030	85.2%
Minority	1,219	14.8%

Table 2-58: Vulnerable Populations in Jena for a 100-Year Hurricane Event

(Source: Hazus)

Jena		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	3,398	100.0%
Persons Under 5 Years	185	5.4%
Persons Under 18 Years	710	20.9%
Persons 65 Years and Over	563	16.6%
White	2,859	84.1%
Minority	539	15.9%

*Table 2-59: Vulnerable Populations in Olla for a 100-Year Hurricane Event
(Source: Hazus)*

Olla		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,385	100.0%
Persons Under 5 Years	133	9.6%
Persons Under 18 Years	383	27.7%
Persons 65 Years and Over	225	16.3%
White	1,330	96.0%
Minority	55	4.0%

*Table 2-60: Vulnerable Populations in Tullos for a 100-Year Hurricane Event
(Source: Hazus)*

Tullos		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	385	100.0%
Persons Under 5 Years	25	6.5%
Persons Under 18 Years	83	21.6%
Persons 65 Years and Over	58	15.1%
White	364	94.6%
Minority	21	5.5%

*Table 2-61: Vulnerable Populations in Urania for a 100-Year Hurricane Event
(Source: Hazus)*

Urania		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,313	100.0%
Persons Under 5 Years	43	3.3%
Persons Under 18 Years	171	13.0%
Persons 65 Years and Over	119	9.1%
White	897	68.3%
Minority	416	31.7%

*Table 2-62: Vulnerable Populations in Jena Band of Choctaw for a 100-Year Hurricane Event
(Source: Hazus)*

Jena Band of Choctaw		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	160	100.0%
Persons Under 5 Years	68	42.5%
Persons Under 18 Years	0	0.0%
Persons 65 Years and Over	9	5.6%
White	0	0.0%
Minority	160	100.0%

Vulnerability

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

Wildfires

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

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

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

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

Table 2-63: 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 LaSalle Parish is a level 5; Jena, Olla, and the Jena Band of Choctaw a level 3, and Tulos and Urania a level 2 on the fire intensity scale. The following figure displays the areas of wildland-urban interface and intermix in LaSalle Parish and its jurisdictions.

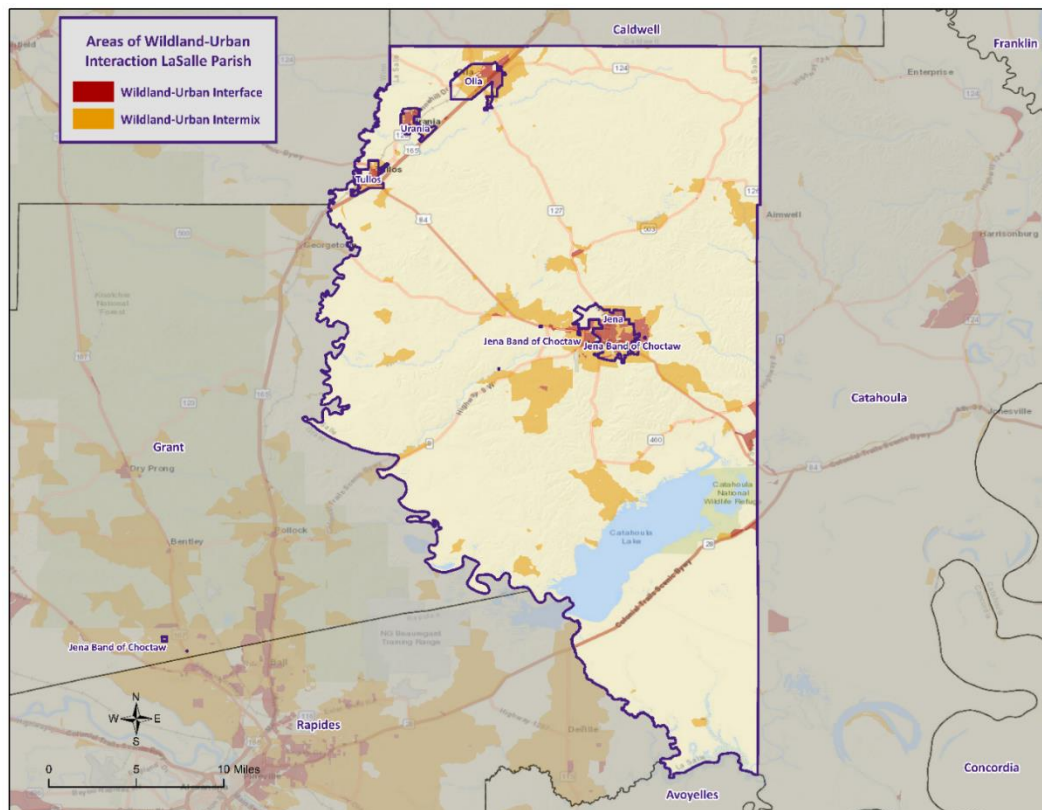


Figure 2-27: Wildland-Urban Interaction in LaSalle Parish.

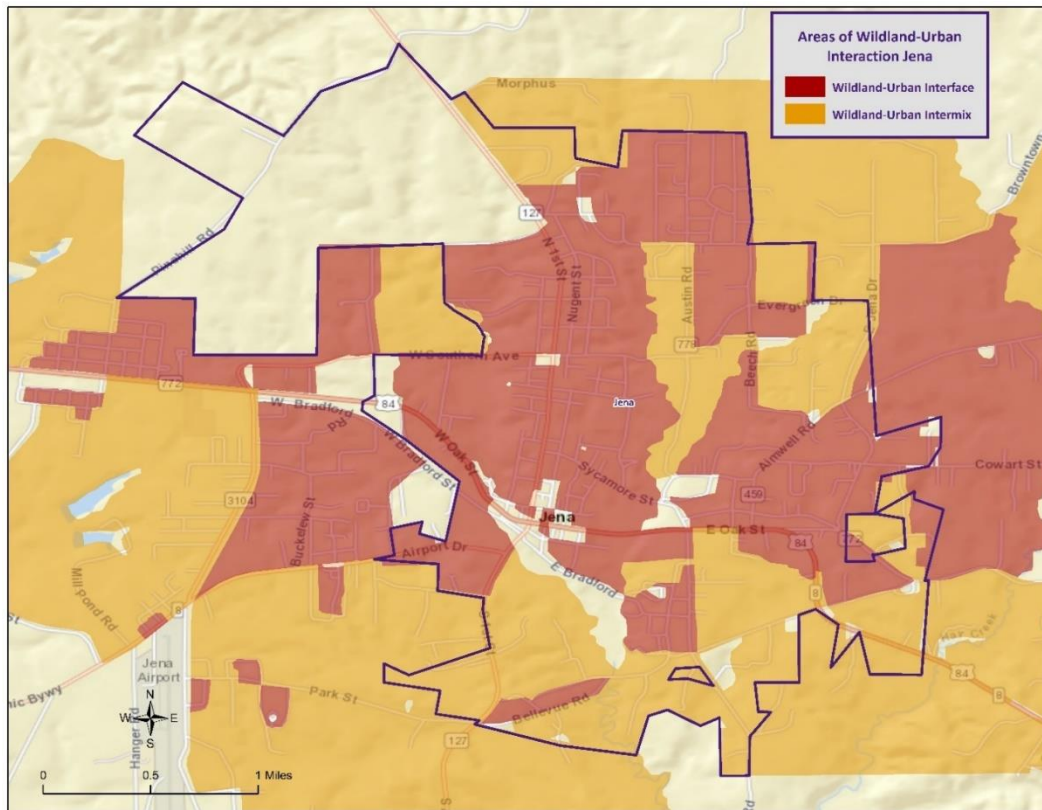


Figure 2-28: Wildland-Urban Interaction in Jena.

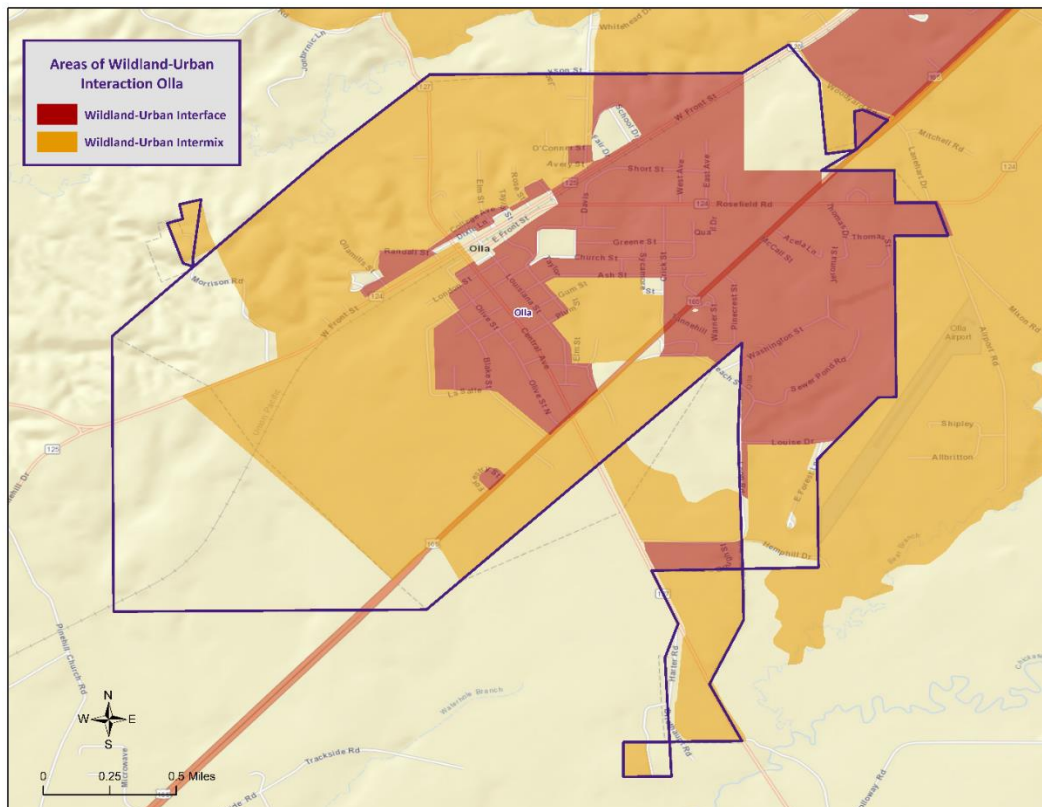


Figure 2-29: Wildland-Urban Interaction in Olla.

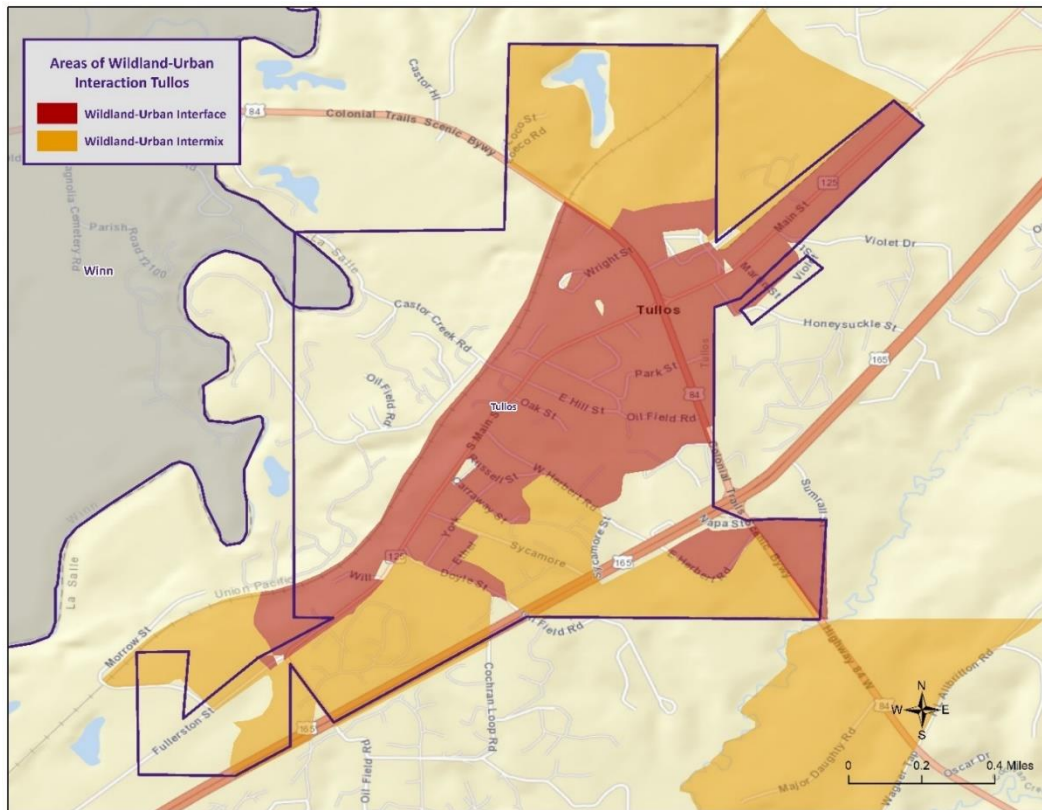


Figure 2-30: Wildland-Urban Interaction in Tullios.

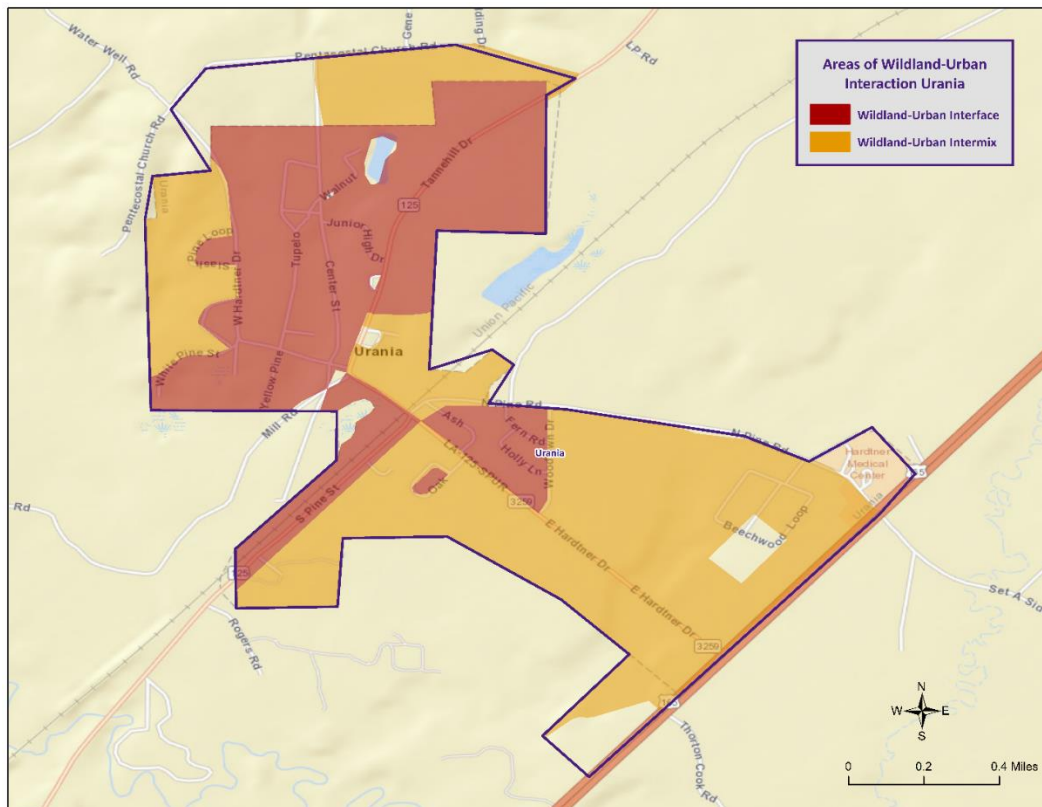


Figure 2-31: Wildland-Urban Interaction in Urania.

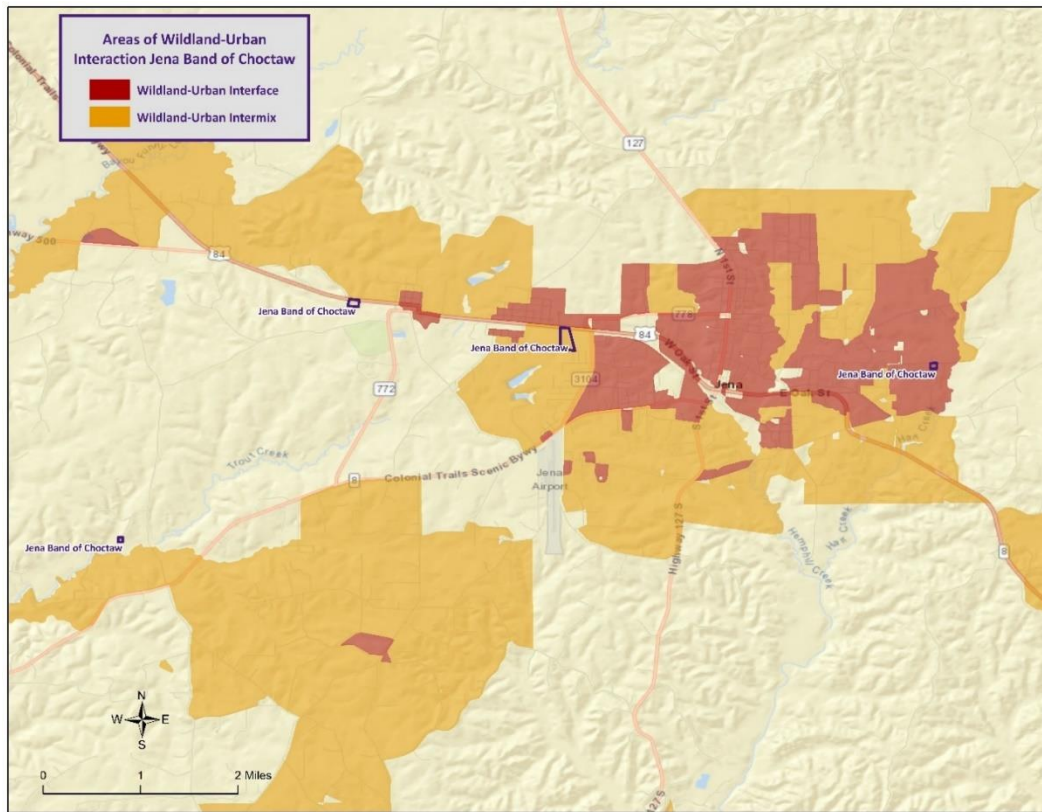


Figure 2-32: Wildland-Urban Interaction in Jena Band of Choctaw.

Previous Occurrences / Extents

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

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

Table 2-64: Potential Wildfire Intensity Levels for LaSalle Parish.

(Source: Southern Wildfire Assessment Portal)

Jurisdiction	Fire Intensity
LaSalle Parish (Unincorporated)	Highest Intensity Level 4
Jena	Moderate Intensity Level 3
Olla	Moderate Intensity Level 3
Tullos	Low Intensity Level 2
Urania	Low Intensity Level 2
Jena Band of Choctaw	Moderate Intensity Level 3

Frequency / Probability

Based on historical records, there have been no significant wildfire events within the boundaries of Urania and the jurisdictions of Jena, Olla, Tullos, Urania, and Jena Band of Choctaw; 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 LaSalle 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 2-65: Total Building Exposure by Wildland-Urban Interaction Areas.

(Source: Hazus)

Jurisdiction	Estimated Total Building Exposure
LaSalle Parish (Unincorporated)	\$660,263,000
Jena	\$345,952,000
Olla	\$117,392,000
Tullos	\$30,976,000
Urania	\$45,345,000
Jena Band of Choctaw	\$340,000
Total	\$1,200,268,000

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

Table 2-66: Estimated Exposure for Unincorporated LaSalle Parish by Sector.

(Source: Hazus)

LaSalle Parish (Unincorporated)	Estimated Total Building Exposure by Sector
Agricultural	\$770,000
Commercial	\$30,123,000
Government	\$7,537,000
Industrial	\$10,602,000
Religious / Non-Profit	\$9,069,000
Residential	\$599,245,000
Schools	\$2,917,000
Total	\$660,263,000

Table 2-67: Estimated Exposure for Jena by Sector.

Jena	Estimated Total Building Exposure by Sector
Agricultural	\$179,000
Commercial	\$53,695,000
Government	\$247,000
Industrial	\$13,854,000
Religious / Non-Profit	\$4,775,000
Residential	\$273,202,000
Schools	\$0
Total	\$345,952,000

*Table 2-68: Estimated Exposure in Olla by Sector.**(Source: Hazus)*

Olla	Estimated Total Building Exposure by Sector
Agricultural	\$264,000
Commercial	\$16,603,000
Government	\$0
Industrial	\$3,141,000
Religious / Non-Profit	\$3,270,000
Residential	\$92,268,000
Schools	\$1,846,000
Total	\$117,392,000

*Table 2-69: Estimated Exposure in Tullos by Sector.**(Source: Hazus)*

Tullos	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$445,000
Government	\$0
Industrial	\$22,000
Religious / Non-Profit	\$0
Residential	\$30,509,000
Schools	\$0
Total	\$30,976,000

Table 2-70: Estimated Exposure in Urania by Sector.

(Source: Hazus)

Urania	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$872,000
Government	\$130,000
Industrial	\$1,128,000
Religious / Non-Profit	\$461,000
Residential	\$41,280,000
Schools	\$1,474,000
Total	\$45,345,000

Table 2-71: Estimated Exposure in Jena Band of Choctaw by Sector.

(Source: Hazus)

Jena Band of Choctaw	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$94,000
Government	\$101,000
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$145,000
Schools	\$0
Total	\$340,000

Threat to People

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

Table 2-72: 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
LaSalle Parish (Unincorporated)	8,249	7,995	96.9%
Jena	3,398	2,941	86.6%
Olla	1,385	1,385	100.0%
Tullos	385	385	100.0%
Urania	1,313	609	46.4%
Jena Band of Choctaw	160	147	91.9%
Total	14,890	13,462	90.4%

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 2-73: Population in Unincorporated LaSalle Parish Located within a Wildland-Urban Interaction Area.

(Source: 2010 Census Data)

LaSalle Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	7,995	96.9%
Persons Under 5 Years	514	6.4%
Persons Under 18 Years	1,892	23.7%
Persons 65 Years and Over	1,183	14.8%
White	6,813	85.2%
Minority	1,182	14.8%

Table 2-74: Population in Jena Located within a Wildland-Urban Interaction Area.

(Source: 2010 Census Data)

Jena		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	2,941	86.6%
Persons Under 5 Years	160	5.4%
Persons Under 18 Years	614	20.9%
Persons 65 Years and Over	487	16.6%
White	2,475	84.1%
Minority	466	15.9%

Table 2-75: Population in Olla Located within a Wildland-Urban Interaction Area.

(Source: 2010 Census Data)

Olla		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,385	100.0%
Persons Under 5 Years	133	9.6%
Persons Under 18 Years	383	27.7%
Persons 65 Years and Over	225	16.3%
White	1,330	96.0%
Minority	55	4.0%

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

Tullos		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	385	100.0%
Persons Under 5 Years	25	6.5%
Persons Under 18 Years	83	21.6%
Persons 65 Years and Over	58	15.1%
White	364	94.6%
Minority	21	5.5%

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

Urania		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	609	46.4%
Persons Under 5 Years	20	3.3%
Persons Under 18 Years	79	13.0%
Persons 65 Years and Over	55	9.1%
White	416	68.3%
Minority	193	31.7%

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

Jena Band of Choctaw		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	147	91.9%
Persons Under 5 Years	62	42.5%
Persons 55 Years and Over	8	5.6%

Vulnerability

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

Winter Weather

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

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

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

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

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

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

Table 2-79: 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 LaSalle Parish as all of the adjacent parishes, the entire planning area for LaSalle Parish is equally at risk for winter storms.

Previous Occurrences / Extents

The NCEI Storm Events Database reports 14 winter weather events occurring within the boundaries of LaSalle Parish between the years 1990 and 2020. Below is a brief synopsis of the winter weather events which occurred since the last LaSalle Parish HMP Update in 2016.

Table 2-80: Previous Occurrences for Winter Storm Events

Date	Synopsis	Property Damage	Crop Damage
January 6, 2017	An arctic air mass began to spill southward across East Texas and North Louisiana during the evening hours on January 5th, ahead of a shortwave trough that translated east through the Rockies and across Oklahoma/the Red River Valley during the morning hours on January 6th. Warmer air overrunning the arctic front across portions of Deep East Texas and much of Northcentral Louisiana resulting in areas of light sleet, mixing with freezing rain and light snow during the morning and afternoon of the 6th. Surface temperatures remained near or slightly below freezing, which resulted in freezing rain accumulations of around a tenth of an inch, with sleet accumulations of around a quarter inch or less. This resulted in the development of icing on bridges and overpasses across the southern and eastern sections of Northcentral Louisiana, resulting in hazardous travel conditions mainly south and east of a Converse, to Goldonna, to Jonesboro and West Monroe line.	\$0	\$0

December 8, 2017	A deep, cold yet modified arctic airmass was in place across the Southern Plains and Lower Mississippi Valley during evening hours of December 7th through the mid morning hours of December 8th. A deep longwave upper level trough was observed across the Texas Hill Country into the Southern and Central Plains with a strong upper level jet streak in the base of this trough from Northern Mexico into Southeast Texas and Southern Louisiana. Strong upward forcing ahead of this trough resulted in precipitation falling across much of Deep East Texas into portions of West Central and East Central Louisiana, much of this in the form of snow. Snowfall ranged from trace amounts to one to three inches across portions of the Lower Toledo Bend and Sam Rayburn Country of Deep East Texas into portions of East Central Louisiana. Much higher snow totals were reported across Central and Southeast Texas into Southern Louisiana where snow was reported as far as Coastal Louisiana into the Atchafalaya Basin of Southern and Southeast Louisiana. There were no reports of any weather related incidents as a result of the snowfall. Here are the reported snowfall totals across portions of Northcentral Louisiana: In Sabine Parish, Negreet and Converse both recorded 0.5 inches. In Natchitoches Parish, Provencal recorded 0.5 inches, and Natchitoches 0.1 inches. In Winn Parish, Winnfield recorded 0.5 inches. In Grant Parish, Pollock recorded 2.5 inches, with 1.0 inches having fallen in Colfax, Bentley, and Dry Prong. In LaSalle Parish, 3.0 inches was recorded in Jena, with 2.0 inches falling in Trout and Olla. In Caldwell Parish, 1.0 inches was recorded in Grayson and Columbia, with 0.5 inches falling at Columbia Lock and Dam.	\$0	\$0
January 16, 2018	A trough of low pressure spread east across the Southern Plains during the evening hours of January 15th, with a arctic air mass quickly spilling south into the Ark-La-Tex during the late afternoon through the evening hours behind a strong cold front. Scattered areas of light rain developed along and just behind the front over much of East Texas and Northcentral Louisiana during the evening hours, with the rain quickly mixing with sleet and changing over to snow during the early morning hours on the 16th. While the mixed wintry precipitation melted during the beginning of the event, temperatures fell quickly into the mid 20s by or shortly after daybreak on the 16th, resulting in some black ice developing on some primary and secondary roadways, bridges and overpasses, with snowfall accumulations of a half inch to an inch and a half, with isolated higher amounts atop of the ice. This caused some travel impacts across these areas of Northcentral Louisiana, before the snow ended by mid-afternoon and temperatures warmed enough to melt the snow and ice across the more traveled roadways. Here are some of the snowfall reports across Northcentral Louisiana from this event: In Desoto Parish, Stonewall recorded 1.1 inches of snow, and Mansfield 1.0 inches. In Sabine Parish, 9 miles west southwest of Many recorded 0.1 inches. In Natchitoches Parish, Downtown Natchitoches recorded 1.0 inches, Melrose 1.0 inches, Ashland 1.0 inches, Grand Ecore 1.0 inches, and 3 miles southwest of Marthaville 1.0 inches. In Red River Parish, 1 mile south of Coushatta recorded 1.0 inches of snow. In Bienville Parish, Arcadia recorded 0.2 inches of snow. In Lincoln Parish, 1 mile north of Ruston recorded 2.0 inches of snow, and Ruston 1.3 inches. In Jackson Parish, Jonesboro recorded 2.0 inches of snow, and Chatham 1.5 inches. In Winn Parish, 9 miles southwest of Calvin recorded 2.0 inches. In Grant Parish, Colfax recorded 0.5 inches of snow. In LaSalle Parish, Jena recorded 0.5 inches of snow. In Caldwell Parish, Columbia	\$0	\$0

	recorded 1.0 inches of snow. In Ouachita Parish, West Monroe recorded 3.0 inches of snow, 2 miles northwest of Monroe 2.0 inches, The University of Louisiana Monroe campus 1.8 inches, Swartz 1.3 inches, and 2 miles north northeast of Claiborne 1.0 inches.		
February 8, 2019	An arctic cold front progressed southeast across the Ark-La-Tex during the daytime hours on February 7th, with temperatures falling from the 70s on the 7th, into the 20s and lower 30s by the morning of February 8th. Extensive mid and high clouds moved back into the region during the daytime hours on the 8th, and thickened up ahead of a shortwave trough that progressed east across Central and East Texas during the afternoon and evening. Large scale forcing and overrunning of warmer air atop the cold, dry, arctic air in place ahead of this trough resulted in areas of sleet initially developing by midday and through the afternoon over East Texas and Northwest Louisiana. Afternoon temperatures over these areas were above freezing as they climbed into the mid 30s to near 40 degrees, such that no ice accumulations occurred initially. However, the warmer air overrunning the cold air mass resulted in a mix of light rain and sleet from the mid-afternoon through the evening. Temperatures cooled to near freezing during the evening through the overnight hours across much of East Texas and North Louisiana along and south of the Interstate 20 corridor as the rain/sleet mix continued, resulting in the light rain changing over to light freezing rain and sleet. Minor ice accumulations were observed (less than one-tenth of an inch), mainly over elevated objects including bridges and overpasses, trees and other vegetation across North Louisiana, which resulted in the closure of Interstate 49 through Shreveport between Interstate 20 and Bert Kouns Industrial Loop, as well as the Interstate 49 interchange along Interstate 220 in North Shreveport. What ice accumulations were observed quickly melted by mid-morning on February 9th as temperatures climbed back above freezing.	\$0	\$0

Frequency / Probability

Based on historical records, there have been 14 significant winter weather events within the boundaries of LaSalle Parish and the jurisdictions of Jena, Olla, Tullos, Urania, and the Jena Band of Choctaw; therefore, the annual chance of occurrence for winter weather is estimated at 47%.

Estimated Potential Losses

Since 1990, there have been 14 winter weather events that have resulted in property damages according to NCEI Storm Events Database. The total property damages associated with those storms have totaled approximately \$5,000. To estimate the potential losses of a winter weather event on an annual basis, the total damages recorded for winter weather was divided by the total number of years of available winter weather in the NCEI Storm Events Database (1990 - 2020). This provides an annual estimated potential loss of \$167 and \$357 per event. The table on the next page provides an estimate of potential property losses for LaSalle Parish.

Table 2-81: Estimated Annual Losses LaSalle Parish and its Jurisdictions Resulting from Winter Weather.

Estimated Annual Potential Losses from Winter Weather					
Unincorporated Area	Jena	Olla	Tullos	Urania	Jena Band of Choctaw
\$92	\$38	\$16	\$4	\$15	\$2

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

Vulnerability

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

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3. Capability Assessment

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

Through this assessment, LaSalle Parish Police Jury 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 LaSalle 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.							
	LaSalle Unincorporated	Town of Jena	Town of Olla	Town of Tullos	Town of Uruania	Jena Band of Chodotaw	Comments
Plans	Yes / No						
Comprehensive / Master Plan	No	Yes	No	No	No	Yes	
Capital Improvements Plan	Yes	No	No	No	No	Yes	
Economic Development Plan	Yes	No	No	No	No	Yes	
Local Emergency Operations Plan	Yes	Yes	No	No	No	Yes	
Continuity of Operations Plan	No	Yes	No	No	No	Yes	
Transportation Plan	Yes	Yes	No	No	No	Yes	
Stormwater Management Plan	No	Yes	No	No	No	Yes	
Community Wildfire Protection Plan	Yes	Yes	No	No	No	Yes	
Other plans (redevelopment, recovery, coastal zone management)	Yes	Yes	No	No	No	No	
Building Code, Permitting and Inspections	Yes / No						
Building Code	Yes	Yes	No	No	No	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	Yes	No	No	No	No	
Fire Department ISO/PIAL rating	Yes	Yes	Yes	No	No	No	
Site plan review requirements	Yes	Yes	No	No	No	Yes	
Land Use Planning and Ordinances	Yes / No						
Zoning Ordinance	Yes	No	No	No	No	No	
Subdivision Ordinance	Yes	No	No	No	No	No	
Floodplain Ordinance	Yes	Yes	Yes	Yes	Yes	No	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	No	No	No	No	No	
Flood Insurance Rate Maps	No	Yes	No	No	No	Yes	
Acquisition of land for open space and public recreation uses	Yes	No	No	No	No	No	
Other	No	No	No	No	No	No	

Since the last Hazard Mitigation Plan Update, there have not been any changes in Hazard Management laws, policies, programs, capabilities, or funding capabilities of the Tribal government of Jena Band of Choctaw.

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

Building Codes, Permitting, Land Use Planning and Ordinances

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

As of the 2021 update, LaSalle 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 LaSalle 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 LaSalle Parish Police Jury meets regularly to consider any proposed ordinance changes, and to take final actions on proposed changes.

While assessing their capabilities, the tribe evaluated current plans, programs, regulations and capabilities which already support or could support pre- and post-disaster hazard mitigation and development. Many of the ongoing plans and policies hold significant promise for hazard mitigation. While there have not been any changes since the last update, the identified plans, programs, regulations and capabilities are valuable instruments in pre- and post-disaster mitigation as they facilitate the implementation of mitigation activities within the tribal area.

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

Table 3-2: Administration and Technical Capabilities

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

Since the last Hazard Mitigation Plan Update, there have not been any changes in Hazard Management laws, policies, programs, capabilities, or funding capabilities of the Tribal government of Jena Band of Choctaw.

Financial capabilities are the resources that LaSalle 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 LaSalle 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.							
	LaSalle Unincorporated	Town of Jena	Town of Olla	Town of Tullios	Town of Uriaia	Jena Band of Choctaw	Comments
Funding Resource	Yes / No						
Capital Improvements project funding	Yes	Yes	No	No	No	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	No	No	No	Yes	
Fees for water, sewer, gas, or electric services	No	Yes	No	No	No	No	
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	No	No	Yes	Yes	
Other Funding Programs	No	No	No	No	Yes	No	

The Jena Band of Choctaw identified the above funding resources for use in hazard mitigation projects. The tribal area typically relies primarily on the FEMA Hazard Mitigation Grant Program to fund all hazard

mitigation activities and projects within the tribal area. Another avenue of funding source would be through the State, GOHSEP as a sub-recipient; The Tribe also has some set aside funds from business revenue to assist with minor projects of mitigation. There are additional sources that could be applied for such as FEMA's FMA, BRIC, PA, and FMAG programs, as well as HUD, Housing and Urban Development—rehabilitation program, BIA—Emergency Management, USET—United Southern and Eastern Tribes. However, there have been no mitigation projects completed within the last five years. The mitigation actions with a status of “Ongoing” found in *Jena Band of Choctaw Mitigation Actions* section of Section 4 have been funded by no source other than HGMP money. Since the last Hazard Mitigation Plan Update, there have not been any changes in Hazard Management Laws, policies, programs, capabilities or funding capabilities of the Tribal government of Jena Band of Choctaw Indians.

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

Table 3-4: Education and Outreach Capabilities

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

Since the last Hazard Mitigation Plan Update, there have not been any changes in Hazard Management laws, policies, programs, capabilities, or funding capabilities of the Tribal government of Jena Band of Choctaw.

As reflected with the above existing regulatory mechanisms, programs and resources within the parish, the jurisdictions within the LaSalle Parish planning area remain committed to expanding and improving on the existing capabilities within the parish. Communities will work together along with the LaSalle Parish Police Jury 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 LaSalle Parish.

Flood Insurance and Community Rating System

Participation in the CRS strengthens local capabilities by lowering flood insurance premiums for jurisdictions that exceed NFIP minimum requirements. As noted in the CRS Eligible Communities List effective April 1, 2021, neither LaSalle Parish nor any of its jurisdictions participate in the Community Rating System.

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

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

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

CLASS	DISCOUNT	CLASS	DISCOUNT
1	45%	6	20%
2	40%	7	15%
3	35%	8	10%
4	30%	9	5%
5	25%	10	—
SFHA (Zones A, AE, A1-A30, V, V1-V30, AO, and AH): Discount varies depending on class.			
SFHA (Zones A99, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO): 10% discount for Classes 1-6; 5% discount for Classes 7-9.*			
Non-SFHA (Zones B, C, X, D): 10% discount for Classes 1-6; 5% discount for Classes 7-9.			

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

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

Tammany Parish. Of the top fifty Louisiana communities, in terms of total flood insurance policies held by residents, 27 participate in the CRS. The remaining 23 communities present an outreach opportunity for encouraging participation in the CRS.

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

protection can result in a loss of CRS credit points and a resulting increase in flood insurance rates to residents.

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

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

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.

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

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*.

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4. Mitigation Strategy

Introduction

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

Officials from all jurisdictions within the planning area confirmed the goals, objectives, actions and projects over the period of the hazard mitigation plan update process. The mitigation actions and projects in this 2021 HMP update are a product of analysis and review of the LaSalle Parish Hazard Mitigation Plan Steering Committee under the coordination of the LaSalle 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 April 2021 – June 2021.

An online public opinion survey of LaSalle Parish residents was conducted between April 2021 and June 2021. The survey was designed to capture public perceptions and opinions regarding natural hazards in the LaSalle 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. The survey could be found at the following URL: <https://www.surveymonkey.com/r/LaSalleHM2021>

This activity was created in an effort to confirm that the goals and action items developed by the LaSalle Parish Hazard Mitigation Plan Steering 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 full LaSalle Parish survey results can be found at the following link:

<https://www.surveymonkey.com/results/SM-GQWFMHB99/>

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

The goals are as follows:

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

The Mitigation Action Plan focuses on actions to be taken by LaSalle 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 LaSalle Parish Hazard Mitigation Plan, large portions of both North and South Louisiana were impacted by separate flooding events whose ramifications are still being felt by the population. Because of this event, LaSalle Parish and its jurisdictions reprioritized its efforts to become more aggressive in seeking funding for flood mitigation efforts, particularly related to drainage. Additionally, after the unprecedented hurricane season of 2020 in which a record five names storms made landfall in Louisiana, the parish also placed a priority on procuring and installing generators at critical facilities to ensure the continuity of essential parish operations. Pressure was placed on political leaders throughout the parish and jurisdictions to ensure that money and resources were sought and made available to mitigate against such events in the future.

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

2021 Mitigation Actions and Update on Previous Plan Actions

The LaSalle Parish Hazard Mitigation Plan Steering Committee identified new actions that would reduce and/or prevent future damage within the LaSalle 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 LaSalle Parish with a solid mitigation strategy through which risk and losses will be reduced throughout the parish and its communities.

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

- **Local Plans and Regulations** – These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.
- **Structure and Infrastructure Projects** – These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area, and also includes projects to construct manmade structures to reduce the impact of hazards.
- **Natural System Protection** – These actions minimize the damage and losses and also preserve or restore the functions of natural systems.
- **Education and Awareness Programs** – These actions inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.

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

Unincorporated LaSalle Parish Mitigation Actions

Previous Action Update

Lasalle Parish - Unincorporated							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
L1: Drainage Improvement Projects	Implementation of drainage improvement/flood mitigation projects to 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.	Parish Budget	As funding is available	LaSalle Parish OHSEP, Parish Engineer and/or Director - Parish Department of Public Works	Flooding, Tropical Cyclones	1, 3, 4	In Progress
L2: Mobile Morgue Trailers	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers.	DHH Grants	As funding is available	LaSalle Parish, Parish Emergency Manager / Hospital Administrator	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	4	Carried Over/Not Started (See LaSalle Parish Action 1)
L3: Generator Installation	Procurement and installation of generators and transfer switches at essential facilities and governmental buildings to ensure continued operations during and after events.	Parish Budget	As funding is available	LaSalle Parish, OHLS/EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones	4	In Progress
L4: Construction of Safe Rooms	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (see LaSalle Parish Action 2)
L5: Communications Systems	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.	State Budget	As funding is available	LaSalle Parish Sheriff	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	In Progress

L6: Mitigation Outreach and Education	Increase public awareness of hazards and hazardous areas. Actions may include distribution of public awareness information regarding all hazards and potential mitigation measures; implementation of educational program for children and merchants; Integrate "Disaster Resistance Education" into the public school curriculum, providing public education on the importance of maintaining the ditches, promotion of the purchase of flood insurance for public. Sponsor a "Multi-Hazard Awareness Week", to educate the public on all hazards.	Parish Budget, Grant Funding	As funding is available	LaSalle Parish OHSEP Director, School Board Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	In Progress
L7: Adoption of International Building Codes and Regulation of New Development.	Adopt the current International Building Codes by ordinance, which would result in additional techniques to harden structures. Develop and pass out ordinances to help regulate new development in the Parish to implement drainage standards, develop codes that will require new subdivision developments to install underground utilities, which would help reduce the chances of power outages.	Parish Budget	As funding is available	LaSalle Parish Police Jury - Police Jury President	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	4	In Progress
L8: Building Retrofit Projects	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.	Hazard Mitigation Grant Program	As funding is available	LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 4	Carried Over/Not Started (See LaSalle Parish Action 3)

L9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding	Parish Budget	As funding is available	LaSalle Parish OHSEP Director, Parish Floodplain Manager	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See LaSalle Parish Action 4)
L10: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Thunderstorms	1, 4	Carried Over/Not Started (See LaSalle Parish Action 5)
L11: Water Conservation Measures	Adopt ordinance requiring water-saving measures in time of drought.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Drought	4	Carried Over/Not Started (See LaSalle Parish Action 6)
L12: Generators and Safe Rooms	Add back up power supply/generators and construct safe rooms at the Continuity of Operations (COOP), the Jena Band of Choctaw Recreation facility, the Whitehall Fire Station, Plum Street Water Well #3, Lower Water Well, the LaSalle Parish Courthouse, the Hardtner Medical Center, and the Urania Sewage Treatment Plant.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Carried Over/Not Started (See LaSalle Parish Action 7) – Separate action for safe room exists (LaSalle New Action 2) so this action will be amended to focus on generators.
L13: Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	Parish Budget	As funding is available	LaSalle Parish OHSEP Director, Parish Floodplain Manager	Thunderstorms, Tropical Cyclones, Flooding	1,3, 4	In Progress
L14: Auto Call Out System	Auto call out system for the Sheriff's Department.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Deleted - Duplicate

L15: Public Awareness	Increase public awareness of hazards and hazardous areas. Distribute public awareness information regarding flood hazards, SFHA's, and potential mitigation measures using the local newspaper, utility bill inserts, inserts in the phone book, and parish hazards awareness website, and an educational program for school age children or "how to" classes in retrofitting by local merchants. Integrate "Disaster Resistance Education" into the public school curriculum. Provide public education on the importance of maintaining the ditches. Implement a public notification system, such as sirens or a call down system with a backup communication system.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,2	In Progress
L16: Multi-Hazard Awareness Week	Sponsor a "Multi-Hazard Awareness Week", to educate the public on tornadoes, severe storms, and hurricanes (sheltering in place, evacuation, emergency preparedness, and structural retrofitting), flooding (evacuation, emergency preparedness, retrofitting, and flood insurance), thunderstorms and lightning (emergency preparedness).	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,2	Completed
L17: International Building Codes	Adopt the current International Building Codes by ordinance, which would result in additional techniques to harden structures.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Winter Weather, Thunderstorms, Tropical Cyclones, Flooding	1,3	Deleted - Duplicate

L18: Regulating New Developments	Develop and pass out ordinances to help regulate new development in the Parish, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate and requiring freeboard above the Base Flood Evaluation (BFE) in flood prone areas. Develop codes that will require new subdivision developments to install underground utilities, which would help reduce the chances of power outages.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Winter Weather, Thunderstorms, Tropical Cyclones, Flooding	1,3, 4	In Progress
L19: Retrofitting	Retrofit municipal building and critical facilities using hardening measures including, but not limited to, saferooms.	Parish Budget	As funding is available	LaSalle Parish OHSEP Director	Tornadoes	1,3	Deleted - Duplicate

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 1	Mobile Morgue Trailers
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Available Federal Funds
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities
PRIORITY	Medium
Action Description	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers in the event of a mass casualty incident caused by natural disasters. The current morgue does not have the capability to house what might be needed for a long term, large scale event.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Increases local capabilities for morgue capacity, eliminating the need for state or federal support
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 2	Construction of Safe Rooms
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability
Type of Mitigation Action	Local Planning and Regulation, 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	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 3	Building Retrofit Projects
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Hazard Mitigation Grant Program
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after hazard events. Benefits: Reduces damage from various hazards, and helps assure that the public buildings can be used, occupied and operable during or after events while sustaining minimal damage.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk of critical facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 4	Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates risk of repetitive and severe repetitive loss structures.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 5	Lightning Mitigation
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Decreases the risk of damage or halting operations of critical facilities
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 6	Water Conservation Measures
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities during times of drought
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 7	Generator Installation
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Add back up power supply/generators at the Continuity of Operations (COOP), the Jena Band of Choctaw Recreation facility, the Whitehall Fire Station, Plum Street Water Well #3, Lower Water Well, the Lasalle Parish Courthouse, the Hardtner Medical Center, and the Urania Sewage Treatment Plant. Additional facilities will be identified as needed.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk of critical facilities allowing essential personnel to continue continuity of operations and government
Current Status of Action	New
Hazard Addressed	Flooding, Tornadoes, Thunderstorms, Tropical Cyclones, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 8	Warming and Cooling Stations
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations throughout the city for use by vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Local Planning and Regulation Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 9	Incorporate and implement design-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
LEAD AGENCY	LaSalle Parish OHSEP
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construct and install design-failure mode power lines.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reducing or preventing further power outages and/or damages can significantly reduce the impacts on local government, residents, etc. throughout the Parish
Current Status of Action	New
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 10	Adopt ordinances to restrict the use of public water resources for non-essential usage
LEAD AGENCY	LaSalle Parish OHSEP and LaSalle Parish Police Jury
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Adopt ordinances to restrict the use of public water resources for non-essential usage
Type of Mitigation Action	Local Planning and Regulation
How Action Aligns with Risk Reduction	Restricting the use of public water resources for non essential usage during times of drought will allow the parish to allocate water resources to critical operations
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS LASALLE PARISH	
	DESCRIPTION
LASALLE PARISH ACTION 10	Adopt Ordinances Incorporating Fire-Resistant Construction Techniques
LEAD AGENCY	LaSalle Parish OHSEP and LaSalle Parish Police Jury
SUPPORTING AGENCIES	Mayor - Town of Jena, Mayor - Town of Olla, Mayor - Town of Tullos, Mayor - Town of Urania, & Jena Band of Choctaw Indians
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	• Incorporate the use of non-combustible materials (i.e., stone, brick, and stucco) for new construction in wildfire hazard areas. • Using fire resistant roofing and building materials in remodels, upgrades, and new construction. • Encourage the use of functional shutters on windows.
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Incorporating fire-resistant construction will provide the citizens of LaSalle Parish a safety measure to protect them against the possibility of a wildfire hazard.
Current Status of Action	New
Hazard Addressed	Wildfires

Additional Supporting Information:

Town of Jena Mitigation Actions

Previous Action Update

Town of Jena							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
J1: Drainage Improvement Projects	Implementation of drainage improvement/flood mitigation projects to 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.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish, Parish Engineer and/or Director of Parish Department of Public Works	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Jena Action 2)
J2: Generator Installation	Procurement and installation of generators and transfer switches at essential facilities and governmental buildings to ensure continued operations during and after events.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish, OHSEP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones	4	Ongoing
J3: Construction of Safe Rooms	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Jena Action 3)
J4: Communications Systems	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.	State Budget	As funding is available	Mayor- Town of Jena, LaSalle Parish Sheriff	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Carried Over/Not Started (See Town of Jena Action 4)

J5: Mitigation Outreach and Education	Increase public awareness of hazards and hazardous areas. Actions may include distribution of public awareness information regarding all hazards and potential mitigation measures; implementation of educational program for children and merchants; Integrate "Disaster Resistance Education" into the public school curriculum, providing public education on the importance of maintaining the ditches, promotion of the purchase of flood insurance for public. Sponsor a "Multi-Hazard Awareness Week", to educate the public on all hazards.	Parish Budget, Grant Funding	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director, School Board Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Ongoing
J6: Building Retrofit Projects	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.	Hazard Mitigation Grant Program	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Thunderstorms, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Jena Action 5)
J7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Jena Action 6)

J8: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Thunderstorms	1, 4	Carried Over/Not Started (See Town of Jena Action 7)
J9: Water Conservation Measures	Adopt ordinance requiring water-saving measures in time of drought.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Drought	4	Carried Over/Not Started (See Town of Jena Action 8)
J10: Mobile Morgue Trailers	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Carried Over/Not Started (See Town of Jena Action 1)
J11: Generators and Safe Rooms	Add back up power supply/generators and construct safe rooms at the Continuity of Operations (COOP), the Jena Band of Choctaw Recreation facility, the Whitehall Fire Station, Plum Street Water Well #3, Lower Water Well, the Lasalle Parish Courthouse, the Hardtner Medical Center, and the Urania Sewage Treatment Plant.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Ongoing
J12: Retrofitting	Retrofit municipal building and critical facilities using hardening measures including, but not limited to, saferooms.	Parish Budget	As funding is available	Mayor - Town of Jena, LaSalle Parish OHSEP Director	Tornadoes	1,3	Deleted - Duplicate

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 1	Mobile Morgue Trailers
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Available Federal Funds
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities
PRIORITY	Medium
Action Description	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers in the event of a mass casualty incident caused by natural disasters. The current morgue does not have the capability to house what might be needed for a long term, large scale event.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Increases local capabilities for morgue capacity, eliminating the need for state or federal support.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 2	Drainage Improvement Projects
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP/LaSalle Parish Engineer/LaSalle Parish Department of Public Works
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.
PRIORITY	Medium
Action Description	Implementation of drainage improvement/flood mitigation projects to 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Enhances drainage capabilities, lowering the risk to people and facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 3	Construction of Safe Rooms
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.
Type of Mitigation Action	Local Planning and Regulation, 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	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 4	Communication Systems
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/State 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 to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Creates redundant communications, enhancing local capabilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 5	Building Retrofit Projects
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Hazard Mitigation Grant Program
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after hazard events. Benefits: Reduces damage from various hazards, and helps assure that the public buildings can be used, occupied and operable during or after events while sustaining minimal damage.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk of critical facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 6	Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates risk of repetitive and severe repetitive loss structures.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 7	Lightning Mitigation
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Decreases the risk of damage or halting operations of critical facilities
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 8	Water Conservation Measures
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities during times of drought
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 9	Heating and Cooling Stations
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations throughout the city for use by vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Local Planning and Regulation Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF JENA	
	DESCRIPTION
TOWN OF JENA ACTION 10	Incorporate and implement design-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
LEAD AGENCY	Mayor of Town of Jena
SUPPORTING AGENCIES	LaSalle Parish OHSEP, LaSalle Parish Police Jury
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construct and install design-failure mode power lines.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reducing or preventing further power outages and/or damages can significantly reduce the impacts on local government, residents, etc. throughout the Parish
Current Status of Action	New
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

Town of Olla Mitigation Actions

Previous Action Update

Town of Olla							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
O1: Drainage Improvement Projects	Implementation of drainage improvement/flood mitigation projects to 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.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish, Parish Engineer and/or Director - Parish Department of Public Works	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Olla Action 2)
O2: Generator Installation	Procurement and installation of generators and transfer switches at essential facilities and governmental buildings to ensure continued operations during and after events.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones	4	Ongoing
O3: Construction of Safe Rooms	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Olla Action 3)
O4: Communications Systems	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.	State Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish Sheriff	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Carried Over/Not Started (See Town of Olla Action 4)

O5: Mitigation Outreach and Education	Increase public awareness of hazards and hazardous areas. Actions may include distribution of public awareness information regarding all hazards and potential mitigation measures; implementation of educational program for children and merchants; Integrate "Disaster Resistance Education" into the public school curriculum, providing public education on the importance of maintaining the ditches, promotion of the purchase of flood insurance for public. Sponsor a "Multi-Hazard Awareness Week", to educate the public on all hazards.	Parish Budget, Grant Funding	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director, School Board	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Ongoing
O6: Building Retrofit Projects	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.	Hazard Mitigation Grant Program	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Olla Action 5)
O7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Olla Action 6)
O8: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Thunderstorms	1, 4	Carried Over/Not Started (See Town of Olla Action 7)

O9: Water Conservation Measures	Adopt ordinance requiring water-saving measures in time of drought.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Drought	4	Carried Over/Not Started (See Town of Olla Action 8)
O10: Mobile Morgue Trailers	Hardtner Medical Center and LaSalle General Hospital are in need of Mobile Morgue Trailers.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Carried Over/Not Started (See Town of Olla Action 1)
O11: Generators and Safe Rooms	Add back up power supply/generators and construct safe rooms at the Continuity of Operations (COOP), the Jena Band of Choctaw Recreation facility, the Whitehall Fire Station, Plum Street Water Well #3, Lower Water Well, the LaSalle Parish Courthouse, the Hardtner Medical Center, and the Urania Sewage Treatment Plant.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Ongoing
O12: Retrofitting	Retrofit municipal building and critical facilities using hardening measures including, but not limited to, saferooms.	Parish Budget	As funding is available	Mayor - Town of Olla, LaSalle Parish OHSEP Director	Tornadoes	1,3	Deleted - Duplicate

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 1	Mobile Morgue Trailers
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Available Federal Funds
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities
PRIORITY	Medium
Action Description	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers in the event of a mass casualty incident caused by natural disasters. The current morgue does not have the capability to house what might be needed for a long term, large scale event.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Increases local capabilities for morgue capacity, eliminating the need for state or federal support.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 2	Drainage Improvement Projects
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP/LaSalle Parish Engineer/LaSalle Parish Department of Public Works
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.
PRIORITY	Medium
Action Description	Implementation of drainage improvement/flood mitigation projects to 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Enhances drainage capabilities, lowering the risk to people and facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 3	Construction of Safe Rooms
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.
Type of Mitigation Action	Local Planning and Regulation, 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	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 4	Communication Systems
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/State 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 to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Creates redundant communications, enhancing local capabilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 5	Building Retrofit Projects
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Hazard Mitigation Grant Program
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after hazard events. Benefits: Reduces damage from various hazards, and helps assure that the public buildings can be used, occupied and operable during or after events while sustaining minimal damage.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk of critical facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 6	Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates risk of repetitive and severe repetitive loss structures.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 7	Lightning Mitigation
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Decreases the risk of damage or halting operations of critical facilities
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 8	Water Conservation Measures
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities during times of drought
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 9	Heating and Cooling Stations
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations throughout the city for use by vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Local Planning and Regulation Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF OLLA	
	DESCRIPTION
TOWN OF OLLA ACTION 10	Incorporate and implement design-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
LEAD AGENCY	Mayor of Town of Olla
SUPPORTING AGENCIES	LaSalle Parish OHSEP, LaSalle Parish Police Jury
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construct and install design-failure mode power lines.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reducing or preventing further power outages and/or damages can significantly reduce the impacts on local government, residents, etc. throughout the Parish
Current Status of Action	New
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

Town of Tullos Mitigation Actions

Previous Action Update

Town of Tullos							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
T1: Drainage Improvement Projects	Implementation of drainage improvement/flood mitigation projects to 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.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director, Parish Engineer and/or Parish Department of Public Works	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Tullos Action 2)
T2: Generator Installation	Procurement and installation of generators and transfer switches at essential facilities and governmental buildings to ensure continued operations during and after events.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones	4	Ongoing
T3: Construction of Safe Rooms	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Tullos Action 3)
T4: Communications Systems	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.	State Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish Sheriff	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Carried Over/Not Started (See Town of Tullos Action 4)

T5: Mitigation Outreach and Education	Increase public awareness of hazards and hazardous areas. Actions may include distribution of public awareness information regarding all hazards and potential mitigation measures; implementation of educational program for children and merchants; Integrate "Disaster Resistance Education" into the public school curriculum, providing public education on the importance of maintaining the ditches, promotion of the purchase of flood insurance for public. Sponsor a "Multi-Hazard Awareness Week", to educate the public on all hazards.	Parish Budget, Grant Funding	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director, School Board Members	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Ongoing
T6: Building Retrofit Projects	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.	Hazard Mitigation Grant Program	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Tullos Action 5)
T7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Tullos Action 6)

T8: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Thunderstorms	1, 4	Carried Over/Not Started (See Town of Tullos Action 7)
T9: Water Conservation Measures	Adopt ordinance requiring water-saving measures in time of drought.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Drought	4	Carried Over/Not Started (See Town of Tullos Action 8)
T10: Mobile Morgue Trailers	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Carried Over/Not Started (See Town of Tullos Action 1)
T11: Generators and Safe Rooms	Add back up power supply/generators and construct safe rooms at the Continuity of Operations (COOP), the Jena Band of Choctaw Recreation facility, the Whitehall Fire Station, Plum Street Water Well #3, Lower Water Well, the Lasalle Parish Courthouse, the Hardtner Medical Center, and the Urania Sewage Treatment Plant.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Ongoing
T12: Retrofitting	Retrofit municipal building and critical facilities using hardening measures including, but not limited to, saferooms.	Parish Budget	As funding is available	Mayor - Town of Tullos, LaSalle Parish OHSEP Director	Tornadoes	1,3	Deleted - Duplicate

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 1	Mobile Morgue Trailers
LEAD AGENCY	Mayor of Town of Tullós
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Available Federal Funds
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities
PRIORITY	Medium
Action Description	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers in the event of a mass casualty incident caused by natural disasters. The current morgue does not have the capability to house what might be needed for a long term, large scale event.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Increases local capabilities for morgue capacity, eliminating the need for state or federal support.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 2	Drainage Improvement Projects
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP/LaSalle Parish Engineer/LaSalle Parish Department of Public Works
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.
PRIORITY	Medium
Action Description	Implementation of drainage improvement/flood mitigation projects to 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Enhances drainage capabilities, lowering the risk to people and facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 3	Construction of Safe Rooms
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.
Type of Mitigation Action	Local Planning and Regulation, 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	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 4	Communication Systems
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/State 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 to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Creates redundant communications, enhancing local capabilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Flooding, Drought, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 5	Building Retrofit Projects
LEAD AGENCY	Mayor of Town of Tullos
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Hazard Mitigation Grant Program
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after hazard events. Benefits: Reduces damage from various hazards, and helps assure that the public buildings can be used, occupied and operable during or after events while sustaining minimal damage.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk of critical facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 6	Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates risk of repetitive and severe repetitive loss structures.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 7	Lightning Mitigation
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Decreases the risk of damage or halting operations of critical facilities
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 8	Water Conservation Measures
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities during times of drought
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 9	Heating and Cooling Stations
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations throughout the city for use by vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Local Planning and Regulation Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF TULLOS	
	DESCRIPTION
TOWN OF TULLOS ACTION 10	Incorporate and implement design-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
LEAD AGENCY	Mayor of Town of Tullus
SUPPORTING AGENCIES	LaSalle Parish OHSEP, LaSalle Parish Police Jury
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construct and install design-failure mode power lines.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reducing or preventing further power outages and/or damages can significantly reduce the impacts on local government, residents, etc. throughout the Parish
Current Status of Action	New
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

Town of Urania Mitigation Actions

Previous Action Update

Town of Urania							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
U1: Drainage Improvement Projects	Implementation of drainage improvement/flood mitigation projects to 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.	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director, Parish Engineer and/or Parish Department of Public Works	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Urania Action 2)
U2: Generator Installation	Procurement and Installation of generators and transfer switches at essential facilities and governmental buildings to ensure continued operations during and after events.	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones	4	Ongoing
U3: Construction of Safe Rooms	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Thunderstorms, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Urania Action 3)
U4: Communications Systems	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.	State Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish Sheriff	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Carried Over/Not Started (See Town of Urania Action 4)

U5: Mitigation Outreach and Education	Increase public awareness of hazards and hazardous areas. Actions may include distribution of public awareness information regarding all hazards and potential mitigation measures; implementation of educational program for children and merchants; Integrate "Disaster Resistance Education" into the public school curriculum, providing public education on the importance of maintaining the ditches, promotion of the purchase of flood insurance for public. Sponsor a "Multi-Hazard Awareness Week", to educate the public on all hazards.	Parish Budget, Grant Funding	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director, Parish School Board Members	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Ongoing
OU6: Building Retrofit Projects	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.	Hazard Mitigation Grant Program	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Town of Urania Action 5)
OU7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	Elevation, acquisition, demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Town of Urania Action 6)
U8: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property.	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Thunderstorms	1, 4	Carried Over/Not Started (See Town of Urania Action 7)

U9: Water Conservation Measures	Adopt ordinance requiring water-saving measures in time of drought.	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Drought	4	Carried Over/Not Started (See Town of Urania Action 8)
U10: Mobile Morgue Trailers	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers.	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Carried Over/Not Started (See Town of Urania Action 1)
U11: Generators and Safe Rooms	Add back up power supply/generators and construct safe rooms at the Continuity of Operations (COOP), the Jena Band of Choctaw Recreation facility, the Whitehall Fire Station, Plum Street Water Well #3, Lower Water Well, the Lasalle Parish Courthouse, the Hardtner Medical Center, and the Urania Sewage Treatment Plant.	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Ongoing
U12: Retrofitting	Retrofit municipal building and critical facilities using hardening measures including, but not limited to, saferooms	Parish Budget	As funding is available	Mayor - Town of Urania, LaSalle Parish OHSEP Director	Tornadoes	1,3	Deleted - Duplicate

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 1	Mobile Morgue Trailers
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Available Federal Funds
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities
PRIORITY	Medium
Action Description	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers in the event of a mass casualty incident caused by natural disasters. The current morgue does not have the capability to house what might be needed for a long term, large scale event.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Increases local capabilities for morgue capacity, eliminating the need for state or federal support.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 2	Drainage Improvement Projects
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP/LaSalle Parish Engineer/LaSalle Parish Department of Public Works
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.
PRIORITY	Medium
Action Description	Implementation of drainage improvement/flood mitigation projects to 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Enhances drainage capabilities, lowering the risk to people and facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 3	Construction of Safe Rooms
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.
Type of Mitigation Action	Local Planning and Regulation, 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	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 4	Communication Systems
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/State 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 to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Creates redundant communications, enhancing local capabilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Flooding, Drought, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 5	Building Retrofit Projects
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Hazard Mitigation Grant Program
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after hazard events. Benefits: Reduces damage from various hazards, and helps assure that the public buildings can be used, occupied and operable during or after events while sustaining minimal damage.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk of critical facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 6	Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates risk of repetitive and severe repetitive loss structures.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 7	Lightning Mitigation
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Decreases the risk of damage or halting operations of critical facilities
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 8	Water Conservation Measures
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities during times of drought
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 9	Heating and Cooling Stations
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations throughout the city for use by vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Local Planning and Regulation Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF URANIA	
	DESCRIPTION
TOWN OF URANIA ACTION 10	Incorporate and implement design-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
LEAD AGENCY	Mayor of Town of Urania
SUPPORTING AGENCIES	LaSalle Parish OHSEP, LaSalle Parish Police Jury
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construct and install design-failure mode power lines.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reducing or preventing further power outages and/or damages can significantly reduce the impacts on local government, residents, etc. throughout the Parish
Current Status of Action	New
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Jena Band of Choctaw Mitigation Actions

Previous Action Update

Jena Band of Choctaw							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
JB1: Drainage Improvement Projects	Implementation of drainage improvement/flood mitigation projects to 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.	Parish Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director, Parish Engineer and/or Parish Department of Public Works	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Jena Band of Choctaw Action 2)
JB2: Generator Installation	Procurement and Installation of generators and transfer switches at essential facilities and governmental buildings to ensure continued operations during and after events.	HMGP	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones	4	Ongoing
JB3: Construction of Safe Rooms	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.	Parish Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Jena Band of Choctaw Action 3)
JB4: Communications Systems	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.	State Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Carried Over/Not Started (See Jena Band of Choctaw Action 4)

JB5: Mitigation Outreach and Education	Increase public awareness of hazards and hazardous areas. Actions may include distribution of public awareness information regarding all hazards and potential mitigation measures; implementation of educational program for children and merchants; Integrate "Disaster Resistance Education" into the public school curriculum, providing public education on the importance of maintaining the ditches, promotion of the purchase of flood insurance for public. Sponsor a "Multi-Hazard Awareness Week", to educate the public on all hazards.	HMGP	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1, 2, 4	Ongoing
JB6: Building Retrofit Projects	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Thunderstorms, Tornadoes, Tropical Cyclones	1, 4	Carried Over/Not Started (See Jena Band of Choctaw Action 5)
JB7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding	Parish Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Flooding, Tropical Cyclones	1, 3, 4	Carried Over/Not Started (See Jena Band of Choctaw Action 6)
JB8: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property.	Parish Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Thunderstorms	1, 4	Carried Over/Not Started (See Jena Band of Choctaw Action 7)

JB9: Water Conservation Measures	Adopt ordinance requiring water-saving measures in time of drought.	Parish Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Drought	4	Carried Over/Not Started (See Jena Band of Choctaw Action 8)
JB10: Mobile Morgue Trailers	Hardtner Medical Center and LaSalle General Hospital are in need of Mobile Morgue Trailers.	Parish Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Carried Over/Not Started (See Jena Band of Choctaw Action 1)
JB11: Generators and Safe Rooms	Add back up power supply/generators and construct safe rooms at the Continuity of Operations (COOP), the Jena Band of Choctaw Recreation facility, the Whitehall Fire Station, Plum Street Water Well #3, Lower Water Well, the LaSalle Parish Courthouse, the Hardtner Medical Center, and the Urania Sewage Treatment Plant.	HMGP	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires	1,3	Ongoing
JB12: Retrofitting	Retrofit municipal building and critical facilities using hardening measures including, but not limited to, saferooms.	Parish Budget	As funding is available	Jena Band of Choctaw Council, LaSalle Parish OHSEP Director	Tornadoes	1,3	Deleted - Duplicate

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 1	Mobile Morgue Trailers
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Available Federal Funds
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities
PRIORITY	Medium
Action Description	Hardtner Medical Center and Lasalle General Hospital are in need of Mobile Morgue Trailers in the event of a mass casualty incident caused by natural disasters. The current morgue does not have the capability to house what might be needed for a long term, large scale event.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Increases local capabilities for morgue capacity, eliminating the need for state or federal support.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought, Flooding, Thunderstorms, and Lightning, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 2	Drainage Improvement Projects
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP/LaSalle Parish Engineer/LaSalle Parish Department of Public Works
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.
PRIORITY	Medium
Action Description	Implementation of drainage improvement/flood mitigation projects to 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Enhances drainage capabilities, lowering the risk to people and facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 3	Construction of Safe Rooms
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in LaSalle Parish. Other locations will be identified based on funding availability.
Type of Mitigation Action	Local Planning and Regulation, 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	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 4	Communication Systems
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/State 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 to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement upgrades and additions to communications systems, including the Auto call out system for the Sheriff's Department. Implement a public notification system, such as sirens or a call down system with backup capabilities.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Creates redundant communications, enhancing local capabilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Flooding, Drought, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 5	Building Retrofit Projects
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget/Hazard Mitigation Grant Program
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after hazard events. Benefits: Reduces damage from various hazards, and helps assure that the public buildings can be used, occupied and operable during or after events while sustaining minimal damage.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk of critical facilities.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 6	Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish and its municipalities 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flood prone properties. Benefits: Relieves property owners of the continual flooding.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Eliminates risk of repetitive and severe repetitive loss structures.
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 7	Lightning Mitigation
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of 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	Local Planning and Regulation, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Decreases the risk of damage or halting operations of critical facilities
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 8	Water Conservation Measures
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities during times of drought
Current Status of Action	New (Carried Over/Not Started from 2016 Update)
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 9	Heating and Cooling Stations
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	Director - LaSalle Parish OHSEP
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations throughout the tribal area for use by vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Local Planning and Regulation Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	This project would ensure that in times of extreme weather, residents could take shelter in climate-controlled environments, thus reducing the risk of heat or cold induced health problems
Current Status of Action	New
Hazard Addressed	Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS JENA BAND OF CHOCTAW	
	DESCRIPTION
JENA BAND OF CHOCTAW ACTION 10	Incorporate and implement design-failure mode for power line design to allow lines to fall or fail in small sections rather than as a complete system to enable faster restoration.
LEAD AGENCY	Jena Band of Choctaw Tribal Council
SUPPORTING AGENCIES	LaSalle Parish OHSEP, LaSalle Parish Police Jury
TIMELINE	As funding is available; 1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	Parish Budget, HMGP
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Construct and install design-failure mode power lines.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reducing or preventing further power outages and/or damages can significantly reduce the impacts on local government, residents, etc. throughout the Parish
Current Status of Action	New
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Action Prioritization

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

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

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

LaSalle 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.

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Appendix A: Planning Process

Purpose

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

The LaSalle Parish Hazard Mitigation Plan Update

The LaSalle Parish Hazard Mitigation Plan Update process began in April 2021 with a series of emails, phone calls, meetings, and collaborations between the contractor (SDMI) and a diverse group of participating agencies and stakeholders. Update activities were intended to give each participating agency and stakeholder the opportunity to shape the plan to best fit their community's mitigation goals. Community stakeholders and the general public were invited to attend and contribute information to the planning process during specific time periods or meetings. Specific to the Jena Band of Choctaw, the "public" was defined as members of the tribal nation living on tribal land or the surrounding areas.

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

Date	Meeting or Outreach	Location	Public Invited	Purpose
4/1/2021	Kick Off Meeting	Conference Call	No	Discuss with Parish HM Director the expectations and requirements of the project.
4/8/2021	Initial Planning Meeting	Jena, LA	No	Discuss with the Steering Committee the expectations and requirements of the project. Assign plan worksheets to Parish.
6/3/2021	Risk Assessment Overview	Jena, LA	No	Discuss and review the Risk Assessment with the Steering Committee. Discuss and review expectations for Public Meeting.
6/3/2021	Public Meeting	Jena, LA	Yes	The Public Meeting allowed the public and community stakeholders from all incorporated jurisdictions and the Jena Band of Choctaw to participate and provide input into the hazard mitigation planning process. Maps of the LaSalle Parish communities were provided for the meeting attendees to identify specific areas where localized hazards occur.
4/1/21-7/14/21	Public Survey Tool	Online	Yes	This survey asked participants about public perceptions and opinions regarding natural hazards in LaSalle Parish. In addition, questions covered the methods and techniques preferred for reducing the risks and losses associated with these hazards. Survey Results: https://www.surveymonkey.com/results/SM-GQWFMHB99/
2 Week Period	Public Plan Review (Digital)		Yes	Parish Website or other locations determined by Steering Committee

Planning

The plan update process consisted of several phases:

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

Coordination

The LaSalle Parish Office of Homeland Security and Emergency Preparedness (OHSEP) oversaw the coordination of the 2021 Hazard Mitigation Plan Update Steering Committee during the update process. The parish OHSEP was responsible for identifying members for the committee.

The Parish Director was responsible for inviting the steering committee and key stakeholders to planned meetings and activities. SDMI assisted the Parish Director with press releases and social media statements for notification to the media and general public for public meetings and public outreach activities.

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

Neighboring Community, Local and Regional Planning Process Involvement

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

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

- Participation in Hazard Mitigation planning meetings at the local and parish level
- Sharing local data and information with jurisdictions
- Incorporation of other planning documents, studies and efforts

- Action item development and action progress from 2016 update
- Plan document draft review
- Formal adoption of the Hazard Mitigation Plan

The Catahoula Parish OHSEP Director was invited to attend the Kick Off, Initial Planning, and Risk Assessment Meetings for LaSalle Parish in an effort to coordinate mitigation efforts where possible as neighboring communities. The Catahoula OHSEP Director was invited via email and phone call to participate in an effort to collaborate with neighboring communities. SDMI assisted LaSalle Parish with encouraging the collaboration with these neighboring communities via email by extending an invitation to the LaSalle 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 2021 Hazard Mitigation Plan Update Steering Committee consisted of the following parish, municipal or community stakeholders. – Town of Jena, Town of Olla, Town of Tullos, Town of Urania, and the Jena Band of Choctaw Indians. There were no other tribal groups included in the planning process. Below is a detailed list of the 2021 HMPU Steering Committee:

LaSalle Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Robert "June" Fowler	President	LaSalle Parish Police Jury	office.lppi@centurytel.net
Jerrold Douglas	Vice-President	LaSalle Parish Police Jury	office.lppi@centurytel.net
Dana Chapman	Director	LaSalle Parish Office of Homeland Security	dchapman@lasalleso.com
Josh Corely	Chief	LP Fire Association	joshcrly@yahoo.com
Cherry Beth Salther	Director of Nursing	Hardtner Medical Center	csalter@hardtnermedical.com
Ray Atwell	Maintenance Director	Hardtner Medical Center	ray@hardtnermedical.com
Brenda Smith	Director of General Services	LaSalle General Hospital	Bsmith@lgh-jena.org
Jennifer Mason	Director of Clinical Services	LaSalle General Hospital	Jmason@lgh-jena.org
Rhonda Elliot	Mayor	Town of Olla	mayor@townofolla.com
LaDawn Edwards	Mayor	Town of Jena	townofjena@centurytel.net
Karla Cockerham	Mayor	Town of Tullos	townoftullos@gmail.com
Terri Corley	Mayor	Town of Urania	uraniatown@centurytel.net
Janet Tullos	Supervisor	LaSalle Parish School Board	jtullos@lasallepsb.com
Melinda Edwards	Member	LaSalle Parish School Board	melindae@lasallepsb.com
Chief Cheryl Smith	Chief	Jena Band of Choctaw	chief@jenachoctaw.org / jbcrcception@jenachoctaw.org
Lillie Williamson	Environmental/ Sanitation/ Emergency Response Director	Jena Band of Choctaw	jwilliamson@jenachoctaw.org
John Smith	Supervisor	LaSalle Water Works	lasallewaterworks@yahoo.com
Joe Thompson	Chief	Olla Fire Department	ovdf101@yahoo.com
Scott McLendon	Chief	Jena Police Department	jena_pd@yahoo.com
Scott Cockerham	Chief	Tullos Police Department	chiefcockerhamtownoftullospd@gmail.com
Daniel Smith	Chief	Olla Police Department	danielsmith9980@gmail.com
Wayne Corley	Chief	Urania Police Department	uraniatown@centurytel.net

Program Integration

Local governments are required to describe how their mitigation planning process is integrated with other ongoing local and area planning efforts. This subsection describes programs and planning administered by the LaSalle Parish Police Jury.

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

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

The members of the LaSalle Parish Hazard Mitigation Steering Committee will remain charged with ensuring that the goals and strategies of new and updated local planning documents for their communities or agencies are consistent with the goals and actions of the Hazard Mitigation Plan and will not contribute to increased hazard vulnerability in the parish. Existing plans, studies, and technical information were incorporated in the planning process. Examples include flood data from FEMA and the U. S. Geological Survey. Much of this data was incorporated into the Risk Assessment component of the plan relative to plotting historical events and the magnitude of damages that occurred. The parish's 2016 Hazard Mitigation Plan was also used in the planning process. Other existing data and plans used in the planning process include those listed below.

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

The mitigation planning process can and should be integrated with other FEMA mitigation programs and initiatives. The Jena Band of Choctaw currently do not participate in any other FEMA programs or initiatives in which the hazard mitigation planning process can be integrated.

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: April 1, 2021

Location: Zoom Video Teleconference

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

Public Invitation: No

Meeting Invitees:

LaSalle Parish Hazard Mitigation Planning Committee		
Name	Title	Agency
Dana Chapman	Director	LaSalle Parish Office of Homeland Security
Lauren Morgan	Associate Director	LSU-SDMI
Chris Rippetoe	Program Manager	LSU-SDMI

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

Date: April 28, 2021

Location: Jena, LA

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

Public Invitation: No

Meeting Invitees:

LaSalle Parish Hazard Mitigation Planning Committee		
Name	Title	Agency
Robert "June" Fowler	President	LaSalle Parish Police Jury
Jerrod Douglas	Vice-President	LaSalle Parish Police Jury
Dana Chapman	Director	LaSalle Parish Office of Homeland Security
Josh Corely	Chief	LP Fire Association
Cherry Beth Salther	Director of Nursing	Hardtner Medical Center
Ray Atwell	Maintenance Director	Hardtner Medical Center
Brenda Smith	Director of General Services	LaSalle General Hospital
Jennifer Mason	Director of Clinical Services	LaSalle General Hospital
Rhonda Elliot	Mayor	Town of Olla
LaDawn Edwards	Mayor	Town of Jena
Karla Cockerham	Mayor	Town of Tullos
Terri Corley	Mayor	Town of Urania
Janet Tullos	Supervisor	LaSalle Parish School Board
Melinda Edwards	Member	LaSalle Parish School Board
Chief Cheryl Smith	Chief	Jena Band of Choctaw
Lillie Williamson	Environmental/ Sanitation/ Emergency Response Director	Jena Band of Choctaw

John Smith	Supervisor	LaSalle Water Works
Joe Thompson	Chief	Olla Fire Department
Scott McLendon	Chief	Jena Police Department
Scott Cockerham	Chief	Tullos Police Department
Daniel Smith	Chief	Olla Police Department
Wayne Corley	Chief	Urania Police Department

Meeting #3: Risk Assessment Presentation to Steering Committee

Date: June 3, 2021

Location: Jena, LA

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

Public Invitation: No

Meeting Invitees:

LaSalle Parish Hazard Mitigation Planning Committee		
Name	Title	Agency
Robert "June" Fowler	President	LaSalle Parish Police Jury
Jerrod Douglas	Vice-President	LaSalle Parish Police Jury
Dana Chapman	Director	LaSalle Parish Office of Homeland Security
Josh Corely	Chief	LP Fire Association
Cherry Beth Salther	Director of Nursing	Hardtner Medical Center
Ray Atwell	Maintenance Director	Hardtner Medical Center
Brenda Smith	Director of General Services	LaSalle General Hospital
Jennifer Mason	Director of Clinical Services	LaSalle General Hospital
Rhonda Elliot	Mayor	Town of Olla
LaDawn Edwards	Mayor	Town of Jena
Karla Cockerham	Mayor	Town of Tullos
Terri Corley	Mayor	Town of Urania
Janet Tullos	Supervisor	LaSalle Parish School Board
Melinda Edwards	Member	LaSalle Parish School Board
Chief Cheryl Smith	Chief	Jena Band of Choctaw
Lillie Williamson	Environmental/ Sanitation/ Emergency Response Director	Jena Band of Choctaw
John Smith	Supervisor	LaSalle Water Works
Joe Thompson	Chief	Olla Fire Department
Scott McLendon	Chief	Jena Police Department
Scott Cockerham	Chief	Tullos Police Department
Daniel Smith	Chief	Olla Police Department
Wayne Corley	Chief	Urania Police Department

Meeting #4: Public Meeting

Date: June 3, 2021**Location:** Jena, LA

Purpose: The Public Meeting allowed community stakeholders and members of the incorporated jurisdictions, as well as the Jena Band of Choctaw, to participate and provide input into the hazard mitigation planning process. Maps of the LaSalle Parish planning area were provided for the meeting attendees to identify specific areas where localized hazards occur. An incident questionnaire was also provided that allowed meeting attendees to provide additional information regarding hazards in LaSalle Parish and its communities, as well as the Jena Band of Choctaw.

Public Invitation: Yes**Meeting Invitees:**

LaSalle Parish Hazard Mitigation Planning Committee		
Name	Title	Agency
Robert "June" Fowler	President	LaSalle Parish Police Jury
Jerrold Douglas	Vice-President	LaSalle Parish Police Jury
Dana Chapman	Director	LaSalle Parish Office of Homeland Security
Josh Corely	Chief	LP Fire Association
Cherry Beth Salther	Director of Nursing	Hardtner Medical Center
Ray Atwell	Maintenance Director	Hardtner Medical Center
Brenda Smith	Director of General Services	LaSalle General Hospital
Jennifer Mason	Director of Clinical Services	LaSalle General Hospital
Rhonda Elliot	Mayor	Town of Olla
LaDawn Edwards	Mayor	Town of Jena
Karla Cockerham	Mayor	Town of Tullos
Terri Corley	Mayor	Town of Urania
Janet Tullos	Supervisor	LaSalle Parish School Board
Melinda Edwards	Member	LaSalle Parish School Board
Chief Cheryl Smith	Chief	Jena Band of Choctaw
Lillie Williamson	Environmental/ Sanitation/ Emergency Response Director	Jena Band of Choctaw
John Smith	Supervisor	LaSalle Water Works
Joe Thompson	Chief	Olla Fire Department
Scott McLendon	Chief	Jena Police Department
Scott Cockerham	Chief	Tullos Police Department
Daniel Smith	Chief	Olla Police Department
Wayne Corley	Chief	Urania Police Department

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 LaSalle Parish residents and Jena Band of Choctaw tribal members was conducted between April and July 2021. The survey was designed to capture public perceptions and opinions regarding natural hazards in LaSalle 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 July 14, 2021, there have been four responses to the LaSalle Parish Hazard Mitigation Public Opinion Survey, with a completion rate of approximately 75%. Full survey results can be found here: <https://www.surveymonkey.com/results/SM-GQWFMHB99/>

Outreach Activity #2: Incident Questionnaire

Date: June 3, 2021; Public Meeting Activity

Location: Public Meeting

Public Invitation: Yes

An incident/issue questionnaire was provided at the public meeting in an effort to collect additional information from residents of LaSalle Parish and members of the Jena Band of Choctaw 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.

LASALLE PARISH PUBLIC MEETING

PUBLIC ACTIVITY: INCIDENT/ISSUE QUESTIONNAIRE

1. HAZARD TYPE(S):

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

F. OTHER:

2. DESCRIBE INCIDENT OR ISSUE:

3. LOCATION:

A. CITY:

B. ADDRESS OR AREA:

C. LOCALIZED OR DISPERSED:

4. INTENSITY:

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

B. WIND STRENGTH

5. RE-OCCURRING OR ONE-TIME

A. IF RE-OCCURRING, HOW OFTEN?

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

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

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

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

Date: Ongoing

Location: SDMI Hazard Mitigation Website

Public Initiation: Yes

After an initial review by LaSalle Parish and its communities was completed, the 2021 LaSalle Parish Hazard Mitigation Plan was made available for public review and comment from citizens of the parish and members of the Jena Band of Choctaw. The plan was hosted on SDMI's Hazard Mitigation website: <http://hmplans.sdmi.lsu.edu/Home/Parish/lasalle>. While any comments left by the public of tribal members were to be reviewed by the parish and tribe respectively and integrated into the plan if appropriate, there were no comments received.

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

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

Responsible Parties

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

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

Methods for Monitoring and Evaluating the Plan and Plan Evaluation Criteria

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

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

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

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

Specific to the Jena Band of Choctaw, a system for tracking the implementation of all mitigation activities and projects will be implemented and the information will be included in the annual progress report submitted to the LaSalle Parish Director. The Emergency Response Director (ERD) is responsible for obtaining other sources of funding. When there is an opportunity available, ERD applies for the funding, after the initial grant/proposal is written, it is then submitted to the Grants Management Specialist for review and approval. Once the Grants Management Specialist has approved, it is then forward to the Tribal Chief for final review, approval and signature.

Once funding has been received, a copy of the award letter is sent to the ERD, Grants Management specialist, JBC accounting department and Tribal Chief. The ERD is responsible for completing the commitments/tasks of the grant and submitting quarterlies to the correct entity. Accounting department is responsible for all the accounting aspects of the grant, such as IDC rates, salary, fringe benefits, and any other expenses that are stated in the grant. The Grants Management Specialist is the primary overseer in ensuring the grant is spent in the correct manner, commitments are accomplished, and quarterlies are submitted in a timely fashion.

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

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

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

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

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

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

2021 Plan Version Plan Method and Schedule Evaluation

For the current plan update, the previously approved plan's method and schedule were evaluated to determine if the elements and processes involved would be sufficient for the 2021 update. As in past plan updates, the previously approved plan method and schedule were evaluated for the 2021 update. From April- June 2021, SDMI convened meetings with the parish, jurisdictional representatives and the tribe to discuss the update process. These meetings included full explanations and expectations of jurisdictions and the tribal area throughout the Mitigation Planning Process and included the overall concept of mitigation planning. As in the 2011 and 2016 versions of the plan, a steering committee was selected, and parish/local/tribal planning efforts and FIRM maps would continue to be incorporated for use in developing the 2021 update. These meetings also discussed previous update planning meeting schedules and future meeting schedules and expectations for this update. These initial meetings allowed the steering committee to analyze and approve the process and schedule, and nothing was changed for this 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 LaSalle Parish Hazard Mitigation Plan Steering Committee and participating jurisdictions to determine additional implementation procedures when appropriate. This may include integrating the requirements of the LaSalle 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
- Debris Removal Plan
- Transportation Plan
- Stormwater Management Plan

Opportunities to integrate the requirements of this plan into other local planning mechanisms will continue to be identified through future meetings of the LaSalle Parish Hazard Mitigation Steering Committee and through the five-year review process described herein. The primary means for integrating mitigation strategies into other local planning mechanisms will be through the revision, update and implementation of each jurisdiction's individual plans that require specific planning and administrative tasks (e.g. risk assessment, plan amendments, ordinance revisions, capital improvement projects, etc.). While there have been no instances of the mitigation strategy being incorporated into other planning documents since the adoption of the 2016 LaSalle Hazard Mitigation Plan, the committee members recognize the importance of a holistic approach across all planning efforts and will use their standing to integrate the mitigation strategy outlined in the 2021 LaSalle Hazard Mitigation Plan into other planning documents when appropriate. During the planning process for new and updated local planning documents at the parish and jurisdiction level, such as a risk assessment, comprehensive plan, capital improvements plan, or emergency operations plan, the jurisdictions will provide a copy of the Parish Hazard Mitigation Plan to the appropriate parties and recommend that all goals and strategies of new and updated local planning documents are consistent with and support the goals of the Parish Hazard Mitigation Plan and will not contribute to increased hazards.

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

On behalf of the Towns of Jena, Olla, Tullos, and Urania, as well as the Jena Band of Choctaw, LaSalle Parish has the authority to incorporate the contents of the Hazard Mitigation Plan into the parish's existing regulatory mechanisms. Agreements are currently in place with jurisdictions to allow for the parish incorporation mechanisms to take place.

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

LaSalle Parish

<i>Capital Improvements Plan</i>	Updated as needed	LaSalle Parish Police Jury	✓
<i>Economic Development Plan</i>	Updated as needed	LaSalle Parish Police Jury	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	LaSalle Parish OHSEP	✓
<i>Transportation Plan</i>	Updated as needed	LaSalle Parish Police Jury	✓
<i>Community Wildfire Protection Plan</i>	Updated as needed	LaSalle Parish OHSEP	✓

Town of Jena

<i>Comprehensive Master Plan</i>	Updated as needed	Town of Jena Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Town of Jena Mayor's Office	✓
<i>Continuity of Operations Plan</i>	Updated as needed	Town of Jena Mayor's Office	✓
<i>Transportation Plan</i>	Updated as needed	Town of Jena Mayor's Office	✓
<i>Stormwater Management Plan</i>	Updated as needed	Town of Jena Mayor's Office	✓
<i>Community Wildfire Protection Plan</i>	Updated as needed	Town of Jena Mayor's Office	✓

Town of Olla

****There are no local plans to incorporate in the Town of Olla****

Town of Tullos

****There are no local plans to incorporate in the Town of Tullos****

Town of Urania

****There are no local plans to incorporate in the Town of Urania****

Jena Band of Choctaw

<i>Comprehensive Master Plan</i>	Updated as needed	Jena Band of Choctaw	✓
<i>Capital Improvement Plan</i>	Updated as needed	Jena Band of Choctaw	✓
<i>Economic Development Plan</i>	Updated as needed	Jena Band of Choctaw	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Jena Band of Choctaw	✓
<i>Continuity of Operations Plan</i>	Updated as needed	Jena Band of Choctaw	✓
<i>Stormwater Management Plan</i>	Updated as needed	Jena Band of Choctaw	✓
<i>Transportation Plan</i>	Updated as needed	Jena Band of Choctaw	✓
<i>Community Wildfire Protection Plan</i>	Updated as needed	Jena Band of Choctaw	✓

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

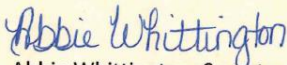
Critical Facilities within the LaSalle Parish Planning Area

LaSalle Parish Planning Area Critical Facilities								
Type	Name	Drought	Flooding	Thunderstorms	Tornadoes	Tropical Cyclones	Wildfires	Winter Weather
Government	Jena Town Hall			X	X	X	X	X
	Olla Town Hall			X	X	X		X
	Tullos Town Hall			X	X	X	X	X
	Urania Town Hall			X	X	X		X
	LaSalle Parish Courthouse			X	X	X		X
Fire & SAR	Eden Fellowship Volunteer FD			X	X	X	X	X
	White Sulphur Spring FD			X	X	X		X
	Jena Fire Department			X	X	X	X	X
	Jena Fire Department Substation			X	X	X	X	X
	Jena Fire Department Substation 2			X	X	X	X	X
	Little Creek-Searcy VFD			X	X	X		X
	Olla VFD Station 1			X	X	X	X	X
	Olla VFD Station 2			X	X	X	X	X
	Rogers-Nebo Volunteer FD			X	X	X		X
	Rogers-Nebo Volunteer FD			X	X	X		X
	Summerville-Rosefield VFD			X	X	X		X
	Summerville-Rosefield VFD			X	X	X	X	X
	Summerville-Rosefield VFD Station 3			X	X	X		X
	Tullos VFD			X	X	X	X	X
	Urania VFD Fire House No. 1			X	X	X	X	X
	Urania VFD Fire House No. 2			X	X	X		X
	Whitehall VFD			X	X	X	X	X
	Whitehall VFD Substation		X	X	X	X		X
	Whitehall VFD Substation 3			X	X	X		X

Law Enforcement	Jena Police Department			X	X	X	X	X
	Olla Police Sub-Station			X	X	X		X
	Tullos Police Department			X	X	X	X	X
	Urania Police Department			X	X	X		X
	LaSalle Parish Sheriff's Department			X	X	X		X
	LaSalle Parish Sheriff's Department			X	X	X	X	X
	LaSalle Parish Correctional Center			X	X	X	X	X
Public Health	Jena Choctaw Health Clinic			X	X	X		X
	LaSalle General Hospital			X	X	X	X	X
	Hardnter Medical Center			X	X	X	X	X
Schools	Fellowship Elementary School			X	X	X	X	X
	Jena Elementary School			X	X	X	X	X
	Nebo Elementary School			X	X	X	X	X
	Olla Elementary School			X	X	X	X	X
	Goodpine Middle School			X	X	X	X	X
	Jena Junior High School			X	X	X	X	X
	LaSalle Junior High School			X	X	X	X	X
	Jena High School			X	X	X	X	X
	LaSalle High School			X	X	X	X	X

Appendix D: Plan Adoption

LaSalle Parish

State of  Louisiana Parish of LaSalle In the Name and By the Authority of The Police Jury of LaSalle Parish RESOLUTION # 2021-015 A RESOLUTION ADOPTING THE LASALLE PARISH HAZARD MITIGATION PLAN 2021 WHEREAS the LaSalle Parish Police Jury has prepared a multi-hazard mitigation plan hereby known as the LaSalle Parish Hazard Mitigation Plan 2021 in accordance with the Disaster Mitigation Act of 2000; and WHEREAS LaSalle Parish Police Jury has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides; WHEREAS LaSalle Parish Police Jury is participating in the Hazard Mitigation Plan prepared by the LaSalle Parish Government under the oversight of a Steering Committee comprised of Parish-Wide representatives; WHEREAS LaSalle Parish and local city representatives and governments have participated in the mitigation planning process; WHEREAS appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents; WHEREAS the plan has been recommended for adoption by the steering committee; WHEREAS adoption of the Plan is required prior to further consideration for FEMA funding under the following programs: Pre-Disaster Mitigation Hazard Mitigation Grant Program Flood Mitigation Assistance Program Therefore, the LaSalle Parish Police Jury does hereby adopt the LaSalle Parish Hazard Mitigation Plan Update 2021. Adopted by a vote of 10 in favor and 0 against, and 0 abstaining, on this the 8th day of November, 2021.  Abbie Whittington, Secretary LaSalle Parish Police Jury STATE OF LOUISIANA PARISH OF LA SALLE IN GOD WE TRUST
--

LaSalle Printing & Office Supply

Town of Jena

Town of Jena

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

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

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

WHEREAS the Town of Jena is participating in the Hazard Mitigation Plan prepared by the LaSalle Parish Government under the oversight of a Steering Committee comprised of Parish-Wide representatives;

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

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

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

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

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

Therefore, the Town of Jena does hereby adopt the LaSalle Parish Hazard Mitigation Plan Update 2021.

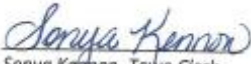
ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, on this the 1st day of November, 2021.


LaDawn Cooper Edwards
Mayor

ATTEST:


Cory Floyd
Town Clerk

Town of Olla

State of  Louisiana Town of Olla In the Name and By the Authority of the Town of Olla of LaSalle Parish RESOLUTION 2021-009 A RESOLUTION ADOPTING THE LASALLE PARISH HAZARD MITIGATION PLAN 2021 WHEREAS, the Olla Mayor and Town Council recognize the threat that natural hazards pose to people and property within Olla; and WHEREAS, LaSalle Parish has prepared a multi-hazard mitigation plan hereby known as the LASALLE PARISH HAZARD MITIGATION PLAN 2021 in accordance with the Disaster Mitigation Act of 2000; and WHEREAS, LASALLE PARISH has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides; WHEREAS, TOWN OF OLLA IS participating in the Hazard Mitigation Plan prepared by the LASALLE Parish Government under the oversight of a Steering Committee comprised of Parish-Wide representatives; WHEREAS, LASALLE Parish and local city representatives and governments have participated in the mitigation planning process; WHEREAS, appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings, and availability of draft documents; WHEREAS, the Plan has been recommended for adoption by the steering committee; WHEREAS, adoption of the Plan is required prior to further consideration for FEMA funding under the following programs: • Pre-Disaster Mitigation • Hazard Mitigation Grant Program • Flood Mitigation Assistance Program Therefore, the TOWN OF OLLA does hereby adopt the LASALLE Parish Hazard Mitigation Plan Update 2021. Yeas: <u> 3 </u> Nays: <u> 0 </u> Abstain: <u> 0 </u> Absent: <u> 2 </u>  Rhonda Elliott, Mayor <u>CERTIFICATE</u> <i>I, Sonya Kennon, Town Clerk of the Town of Olla, do hereby certify that the foregoing resolution is a true and exact copy adopted by The Town of Olla Council at a meeting thereof legally held on the <u>09th</u> day of <u>November</u>, 2021.</i>  Sonya Kennon, Town Clerk 
--

Town of Tullos

P. O. Box 749
Tullos, LA 71479
Phone: (318) 534-6499
Fax: (318) 534-6500



MAYOR
Karla Cockerham

COUNCIL MEMBERS
Kathi Valentine
Dustin Jones
Mary Catherine Lasiter
Tina Murphrey Tullos
Sonya Johnson

CHIEF OF POLICE
Scott Cockerham

CLERK & TAX COLLECTOR:
Jonna Soupe

RESOLUTION**A RESOLUTION ADOPTING THE
LASALLE PARISH HAZARD MITIGATION PLAN 2021 ,**

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

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

WHEREAS, the Town of Tullos is participating in the Hazard Mitigation Plan prepared by the LaSalle Parish Government under the oversight of a Steering Committee comprised of Parish-Wide representatives;

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

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

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

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

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

THEREFORE, the Town of Tullos does hereby adopt the LaSalle Parish Hazard Mitigation Plan Update 2021.

Adopted by a vote of 3 yeas, 0 nays, 2 absent, and
0 abstained, on the 1st day of November, 2021.

CERTIFICATE

I hereby certify that the foregoing is a true and exact copy of the resolution adopted at the board meeting held on November 1, 2021, at which meeting a quorum was present and voting.

Tullos, Louisiana, this 1st day of November, 2021.

Karla Cockerham
Karla Cockerham, Mayor

Attest:

Jonna Souppa
Jonna Souppa, Clerk

Town of Urania

TOWN OF URANIA

P. O. Box 339
2021 East Hardtner Drive
Urania, Louisiana 71480
Phone: (318) 495-3452
Fax: (318) 495-3425
e-Mail: uraniatown@centurytel.net

Mayor
Terri B. Corley

Town Clerk
Sandy Callender

Aldermen
Patrick McDougald
William "Bill" Brown
Jay Ivy
Tom Douglas
Dawn Book

RESOLUTION 2021-07

A RESOLUTION ADOPTING THE
LASALLE PARISH HAZARD MITIGATION PLAN 2021

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

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

WHEREAS Town of Urania is participating in the Hazard Mitigation Plan prepared by the LaSalle Parish Government under the oversight of a Steering Committee comprised of Parish-Wide representatives;

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

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

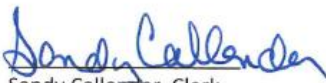
WHEREAS the Plan has been recommended for adoption by the steering committee;

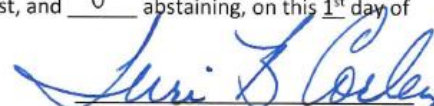
WHEREAS adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

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

Therefore, the Town of Urania does hereby adopt the LaSalle Parish Hazard Mitigation Plan Update 2021.

ADOPTED by a vote of 4 in favor and 0 against, and 0 abstaining, on this 1st day of November, 2021.


Sandy Callender, Clerk


Terri B. Corley, Mayor

"This institution is an equal opportunity provider."

Jena Band of Choctaw Indians



Jena Band of Choctaw Indians

P. O. Box 14 Jena, Louisiana 71342014 Phone: 318--992-2717 Fax: 318-992-8244

TRIBAL COUNCIL RESOLUTION

RESOLUTION JBC-2021-- 1020-A

**A RESOLUTION OF THE JENA BAND OF CHOCTAW INDIANS
ADOPTING THE
LASALLE PARISH – JB CHOCTAW TRIBE –
MULTI JURISDICTION HAZARD MITIGATION PLAN 2021**

WHEREAS, The Jena Band of Choctaw Indians is a Federally recognized Indian Tribe, and

WHEREAS, The Jena Choctaw Tribal Council is the governing body of the Jena Band of Choctaw Indians, and

WHEREAS, The JENA BAND OF CHOCTAW INDIANS has prepared a multi-hazard mitigation plan hereby known as the LASALLE PARISH – JB CHOCTAW TRIBE – MULTI JURISDICTION HAZARD MITIGATION PLAN 2021 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, The JENA BAND OF CHOCTAW INDIANS has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides; and

WHEREAS, THE LASALLE PARISH – JB CHOCTAW TRIBE – MULTI JURISDICTION HAZARD MITIGATION PLAN 2021 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in LaSalle Parish from the impact of future hazards and disasters; and

WHEREAS, adoption by the JENA BAND OF CHOCTAW INDIANS TRIBAL COUNCIL demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the LASALLE PARISH – JB CHOCTAW TRIBE –

MULTI JURISDICTION HAZARD MITIGATION PLAN 2021.

NOW THEREFORE, BE IT RESOLVED that the Jena Band of Choctaw Indians Tribal Council hereby adopts and approves the LASALLE PARISH – JB CHOCTAW TRIBE – MULTI JURISDICTION HAZARD MITIGATION PLAN 2021.

ADOPTED by a vote of 5 in favor and 0 against, on this the 20th day of October, 2021.

B. Cheryl Smith
B. CHERYL SMITH, TRIBAL CHIEF

Libby Rogers
LIBBY ROGERS, TRIBAL COUNCIL

Lacy McGuffee
LACY MCGUFFEE, TRIBAL COUNCIL

Christine Norris
CHRISTINE NORRIS, TRIBAL COUNCIL

Christy Murphy
CHRISTY MURPHY, TRIBAL COUNCIL

Appendix E: State Required Worksheets

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

Mitigation Planning Team

LaSalle Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Robert "June" Fowler	President	LaSalle Parish Police Jury	office.lppj@centurytel.net
Jerrold Douglas	Vice-President	LaSalle Parish Police Jury	office.lppj@centurytel.net
Dana Chapman	Director	LaSalle Parish Office of Homeland Security	dchapman@lasalleso.com
Josh Corely	Chief	LP Fire Association	joshcrly@yahoo.com
Cherry Beth Salther	Director of Nursing	Hardtner Medical Center	csalter@hardtnermedical.com
Ray Atwell	Maintenance Director	Hardtner Medical Center	ray@hardtnermedical.com
Brenda Smith	Director of General Services	LaSalle General Hospital	Bsmith@lgh-jena.org
Jennifer Mason	Director of Clinical Services	LaSalle General Hospital	Jmason@lgh-jena.org
Rhonda Elliot	Mayor	Town of Olla	mayor@townofolla.com
LaDawn Edwards	Mayor	Town of Jena	townofjena@centurytel.net
Karla Cockerham	Mayor	Town of Tullos	townoftullos@gmail.com
Terri Corley	Mayor	Town of Urania	uraniatown@centurytel.net
Janet Tullos	Supervisor	LaSalle Parish School Board	jtullos@lasallepsb.com
Melinda Edwards	Member	LaSalle Parish School Board	melindae@lasallepsb.com
Chief Cheryl Smith	Chief	Jena Band of Choctaw	chief@jenachoctaw.org / jbcreeption@jenachoctaw.org
Lillie Williamson	Environmental/ Sanitation/ Emergency Response Director	Jena Band of Choctaw	lwilliamson@jenachoctaw.org
John Smith	Supervisor	LaSalle Water Works	lasallewaterworks@yahoo.com
Joe Thompson	Chief	Olla Fire Department	ovdf101@yahoo.com
Scott McLendon	Chief	Jena Police Department	jena_pd@yahoo.com
Scott Cockerham	Chief	Tullos Police Department	chiefcockerhamtownoftullospd@gmail.com
Daniel Smith	Chief	Olla Police Department	danielsmith9980@gmail.com
Wayne Corley	Chief	Urania Police Department	uraniatown@centurytel.net

Capability Assessment

LaSalle Parish

Capability Assessment Worksheet – LaSalle Parish		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	Yes / No	Comments
Comprehensive / Master Plan	No	n/a
Capital Improvements Plan	Yes	n/a
Economic Development Plan	Yes	LEDD Does
Local Emergency Operations Plan	Yes	n/a
Continuity of Operations Plan	No	LPPJ does not have
Transportation Plan	Yes	n/a
Stormwater Management Plan	No	n/a
Community Wildfire Protection Plan	Yes	National Forest/Fire Does
Other plans (redevelopment, recovery, coastal zone management)	Yes	n/a
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	n/a
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	n/a
Fire Department ISO/PIAL rating	Yes	n/a
Site plan review requirements	Yes	n/a
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	Yes	n/a
Subdivision Ordinance	Yes	n/a
Floodplain Ordinance	Yes	n/a
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	n/a
Flood Insurance Rate Maps	No	n/a
Acquisition of land for open space and public recreation uses	Yes	n/a
Other	No	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	No	Towns Does
Mitigation Planning Committee	Yes	n/a
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	n/a
Staff	Yes / No	Comments
Chief Building Official	Yes	n/a
Floodplain Administrator	Yes	n/a
Emergency Manager	Yes	n/a
Community Planner	No	Towns Does
Civil Engineer	Yes	n/a
GIS Coordinator	Yes	LaSalle Parish Assessors
Grant Writer	Yes	n/a
Other	No	n/a
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	n/a
Hazard Data & Information	Yes	n/a
Grant Writing	Yes	n/a
Hazus Analysis	No	n/a
Other	No	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	Capital Outlay
Authority to levy taxes for specific purposes	Yes	With Parish Vote
Fees for water, sewer, gas, or electric services	No	Each District Does
Impact fees for new development	No	n/a
Stormwater Utility Fee	No	n/a
Community Development Block Grant (CDBG)	Yes	n/a
Other Funding Programs	No	n/a

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	Safety Expos/Facebook Post
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	Safety Expos/Facebook Post
Natural Disaster or safety related school program	Yes	Safety Expos/Facebook Post
Storm Ready certification	No	n/a
Firewise Communities certification	Yes	n/a
Public/Private partnership initiatives addressing disaster-related issues	Yes	n/a
Other	No	n/a

Town of Jena

Capability Assessment Worksheet – Town of Jena		
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	n/a
Capital Improvements Plan	No	n/a
Economic Development Plan	No	n/a
Local Emergency Operations Plan	Yes	n/a
Continuity of Operations Plan	Yes	n/a
Transportation Plan	Yes	n/a
Stormwater Management Plan	Yes	n/a
Community Wildfire Protection Plan	Yes	n/a
Other plans (redevelopment, recovery, coastal zone management)	Yes	n/a
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	n/a
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	Handled by Parish
Fire Department ISO/PIAL rating	Yes	n/a
Site plan review requirements	Yes	n/a
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	n/a
Subdivision Ordinance	No	n/a
Floodplain Ordinance	Yes	n/a
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	n/a
Flood Insurance Rate Maps	Yes	n/a
Acquisition of land for open space and public recreation uses	No	n/a
Other	No	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	No	n/a
Mitigation Planning Committee	No	n/a
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	n/a
Staff	Yes / No	Comments
Chief Building Official	No	Use contractor
Floodplain Administrator	Yes	n/a
Emergency Manager	No	n/a
Community Planner	No	n/a
Civil Engineer	No	Use contractor
GIS Coordinator	No	n/a
Grant Writer	No	Use contractor
Other	No	n/a
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	n/a
Hazard Data & Information	No	n/a
Grant Writing	No	Use contractor
Hazus Analysis	No	n/a
Other	No	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	n/a
Authority to levy taxes for specific purposes	Yes	with voter approval
Fees for water, sewer, gas, or electric services	Yes	n/a
Impact fees for new development	No	n/a
Stormwater Utility Fee	No	n/a
Community Development Block Grant (CDBG)	Yes	n/a
Other Funding Programs	No	n/a

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	n/a
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	No	n/a
Natural Disaster or safety related school program	No	n/a
Storm Ready certification	No	n/a
Firewise Communities certification	No	n/a
Public/Private partnership initiatives addressing disaster-related issues	No	n/a
Other	No	n/a

Town of Olla

Capability Assessment Worksheet – Town of Olla		
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	*Based on current parish agreements, Olla has the ability to utilize the capabilities of the parish government
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	No	*Based on current parish agreements, Olla has the ability to utilize the capabilities of the parish government
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	*Based on current parish agreements, Olla has the ability to utilize the capabilities of the parish government
Subdivision Ordinance	No	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	No	
Acquisition of land for open space and public recreation uses	No	
Other	No	

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	Yes / No	Comments
Planning Commission	Yes	Volunteer Board
Mitigation Planning Committee	No	*Based on current parish agreements, Olla has the ability to utilize the capabilities of the parish government
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	No	
Staff	Yes / No	Comments
Chief Building Official	No	*Based on current parish agreements, Olla has the ability to utilize the capabilities of the parish government
Floodplain Administrator	Yes	
Emergency Manager	No	
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Outdoor sirens
Hazard Data & Information	No	*Based on current parish agreements, Olla has the ability to utilize the capabilities of the parish government
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	*Based on current parish agreements, Olla has the ability to utilize the capabilities of the parish government
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric services	No	
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	No	
Other Funding Programs	No	

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

Town of Tullos

Capability Assessment Worksheet – Town of Tullos		
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	*Based on current parish agreements, Tullos has the ability to utilize the capabilities of the parish government
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	No	*Based on current parish agreements, Tullos has the ability to utilize the capabilities of the parish government
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	No	
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	*Based on current parish agreements, Tullos has the ability to utilize the capabilities of the parish government
Subdivision Ordinance	No	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	No	
Acquisition of land for open space and public recreation uses	No	
Other	No	

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	Yes / No	Comments
Planning Commission	No	*Based on current parish agreements, Tullos has the ability to utilize the capabilities of the parish government
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	No	
Staff	Yes / No	Comments
Chief Building Official	No	*Based on current parish agreements, Tullos has the ability to utilize the capabilities of the parish government
Floodplain Administrator	Yes	
Emergency Manager	No	
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	*Based on current parish agreements, Tullos has the ability to utilize the capabilities of the parish government
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	*Based on current parish agreements, Tullos has the ability to utilize the capabilities of the parish government
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric services	No	
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	No	
Other Funding Programs	No	

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

Town of Urania

Capability Assessment Worksheet – Town of Urania		
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	*Based on current parish agreements, Urania has the ability to utilize the capabilities of the parish government
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	No	*Based on current parish agreements, Urania has the ability to utilize the capabilities of the parish government
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	No	
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	*Based on current parish agreements, Urania has the ability to utilize the capabilities of the parish government
Subdivision Ordinance	No	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	No	
Acquisition of land for open space and public recreation uses	No	Open space acquisition as needed
Other	No	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	No	*Based on current parish agreements, Urania has the ability to utilize the capabilities of the parish government
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	No	
Staff	Yes / No	Comments
Chief Building Official	No	*Based on current parish agreements, Urania has the ability to utilize the capabilities of the parish government
Floodplain Administrator	Yes	
Emergency Manager	No	
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	n/a
Hazard Data & Information	No	n/a
Grant Writing	No	Consult as needed
Hazus Analysis	No	n/a
Other	No	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	No	n/a
Authority to levy taxes for specific purposes	No	n/a
Fees for water, sewer, gas, or electric services	No	n/a
Impact fees for new development	No	n/a
Stormwater Utility Fee	No	n/a
Community Development Block Grant (CDBG)	Yes	n/a
Other Funding Programs	Yes	LEDD, Blue Cross/Blue Shield

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	n/a
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	No	n/a
Natural Disaster or safety related school program	No	n/a
Storm Ready certification	No	n/a
Firewise Communities certification	No	n/a
Public/Private partnership initiatives addressing disaster-related issues	No	n/a
Other	No	n/a

Jena Band of Choctaw

Capability Assessment Worksheet – Jena Band of Choctaw		
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	N/A
Capital Improvements Plan	Yes	N/A
Economic Development Plan	Yes	N/A
Local Emergency Operations Plan	Yes	N/A
Continuity of Operations Plan	Yes	N/A
Transportation Plan	Yes	N/A
Stormwater Management Plan	Yes	N/A
Community Wildfire Protection Plan	Yes	N/A
Other plans (redevelopment, recovery, coastal zone management)	No	N/A
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	N/A
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	N/A
Fire Department ISO/PIAL rating	No	N/A
Site plan review requirements	Yes	N/A
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	N/A
Subdivision Ordinance	No	N/A
Floodplain Ordinance	No	N/A
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	N/A
Flood Insurance Rate Maps	Yes	N/A
Acquisition of land for open space and public recreation uses	No	N/A
Other	No	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	JBC TRIBAL COUNCIL
Mitigation Planning Committee	Yes	JBC TRIBAL COUNCIL
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	JBC MAINTENANCE DEPARTMENT
Staff	Yes / No	Comments
Chief Building Official	No	N/A
Floodplain Administrator	No	N/A
Emergency Manager	Yes	N/A
Community Planner	Yes	JBC TRIBAL COUNCIL
Civil Engineer	No	N/A
GIS Coordinator	Yes	N/A
Grant Writer	Yes	N/A
Other	No	N/A
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	THRU JBC FACEBOOK PAGE
Hazard Data & Information	No	N/A
Grant Writing	Yes	N/A
Hazus Analysis	No	N/A
Other	No	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	N/A
Authority to levy taxes for specific purposes	Yes	N/A
Fees for water, sewer, gas, or electric services	No	N/A
Impact fees for new development	No	N/A
Stormwater Utility Fee	No	N/A
Community Development Block Grant (CDBG)	Yes	N/A
Other Funding Programs	No	N/A

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	TRIBAL COMMUNITY
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	TRIBAL NEWSLETTER
Natural Disaster or safety related school program	Yes	N/A
Storm Ready certification	Yes	N/A
Firewise Communities certification	No	N/A
Public/Private partnership initiatives addressing disaster-related issues	Yes	LOCAL COMMUNITY
Other	No	N/A

Referenced regulations, policies, programs, and capabilities of the Jena Band of Choctaw Indians have been and will continue to be effective in all pre- and post-disaster environments. Each of the plans, regulations etc. are managed and maintained directly in the Tribal government offices by Tribal officials. This provides constant oversight and engagement of leadership who administer the laws. This continued and engaged oversight of Tribal capabilities leads to effective preparedness, response, and recovery on all levels. The Jena Band of Choctaw Indians have also seen great results through the judicious use of regulations, policies, programs, and capabilities related to development in hazard prone areas. Particularly, the Tribe's use of building codes and site plan review requirements ensure that new developments are constructed to withstand any potential hazard to which an area may be vulnerable.

Building Inventory

LaSalle Parish Owned Building Information								
LaSalle Unincorporated								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Eden Fellowship Volunteer FD	Fire Department	283 Hwy 774	Trout	31.638406	-92.201614			Metal
White Sulphur Spring FD	Fire Department	199 Blondie Road	Trout	31.60348	-92.279549			Metal
Jena Fire Department	Fire Department	540 E Bradford St	Jena	31.6797372	-92.1297891			Metal
Jena Fire Department Substation	Fire Department	4197 Hwy 3104	Jena	31.6816807	-92.1540434			Metal
Jena Fire Department Substation 2	Fire Department	3360 Austin Road	Jena	31.6974373	-92.1229266			Metal
Little Creek-Searcy VFD	Fire Department	113 Melody Acres Road	Trout	31.715486	-92.2662364			Metal
Olla VFD Station 1	Fire Department	3435 Main Street 165	Olla	31.8997741	-92.2304194			Metal
Olla VFD Station 2	Fire Department	1957 Central Ave	Olla	31.9073705	-92.244287			Metal
Rogers-Nebo Volunteer FD	Fire Department	8611 Hwy 127 S	Jena	31.5846565	-92.1414261			Metal
Rogers-Nebo Volunteer FD	Fire Department	9824 Hwy 127 S	Jena					Metal
Summerville-Rosefield VFD	Fire Department	419 HWY 503	Olla	31.8062735	-92.0551514			Metal
Summerville-Rosefield VFD	Fire Department	2849 Hwy 503	Olla	31.7551831	-92.1560659			Metal
Summerville-Rosefield VFD Station 3	Fire Department	401 Bryan Hodges Road	Olla	31.890914	-92.0717928			Metal
Tullos VFD	Fire Department	10187 S Main Street	Tullos	31.8178904	92.3306073			Metal
Urania VFD Fire House No. 1	Fire Department	1910 W Hardtner Dr	Urania	31.8641228	-92.2960376			Metal
Urania VFD Fire House No. 2	Fire Department	1902 N Pine Road	Urania	31.8630874	-92.2877981			Metal
Whitehall VFD	Fire Department	9920 Hwy 84 E	Jena	31.626526	-92.046136			Metal
Whitehall VFD Substation	Fire Department	606 Cypress Bayou Loop	Jonesville	31.5293102	-92.0127487			Metal

Whitehall VFD Substation 3	Fire Department	529 Hwy 772 E	Jena	31.6897032	-92.0787743			Metal
Central Louisiana Technical Community College	School	521 E Bradford Street	Jena	31.679029199246	-92.129899085262			
Fellowship Elementary School	School	1650 Hwy 773	Trout	31.634005422718	-92.196427168991			
Goodpine Middle School	School	12642 Hwy 84 W	Jena	31.693969217932	-92.168452788545			
Jena Elementary School	School	758 E Sharbono Street	Jena	31.67710133200	-92.133002392338			
Jena High School	School	243 E High School Drive	Jena	31.691569765761	-92.127950172272			
Jena Junior High School	School	114 E Southern Ave	Jena	31.694936146366	-92.123413540391			
LaSalle High School	School	1460 Blake Street	Olla	31.897109937861	-92.241798108074			
LaSalle Junior High School	School	590 Tannehill Dri	Urania	31.869310408296	-92.294116483255			
LaSalle Parish Alternative School	School	12646 Hwy 84 W	Jena	31.6943687642216	-92.169266974534			
Nebo Elementary School	School	300 Hwy 777	Jena	31.563085758255	-92.14797168815			
Olla Standard Elementary School	School	4170 School Dr	Olla	31.911163679993	-92.234779081638			
Temple Christian Academy	School	5933 Aimwell Road	Jena					
LaSalle Parish Head start School	School	1465 School Street	Jena	31.690968237342	-92.167519579595			
LaSalle Parish School Board	School	3012 North 1st Street	Jena	31.686518823984	-92.132895495902			
Belah Water District	Water District	250 Alonzo Road	Trout					
East Jena Water District	Water District	114 Hummingbird Ln	Jena					
LaSalle Water/Sewage District No 1	Water District	410 McIntyre ST	Jena					
Nebo Water District	Water District	285 Indian Bluff Road	Jena					
Pleasant Ridge Water System	Water District	250 Cassidy LN	Jena					
Rogers Water District	Water District	466 HWY 776	Jena					
Summerville Water District	Water District	271 Zeagler Cutoff	Olla					
Town of Jena Water/Sewage System	Water District & Sewer	431 E Bradford Street	Jena					

Tow of Olla Water/Sewage System	Water District & Sewer	1285 Plum Street	Olla					
Tow of Tullos Water/Sewage System	Water District & Sewer	3690 Central Ave	Tullos					
Town of Urania Water/Sewage System	Water District & Sewer	2021 E Hardtner Dr	Urania					
Whitehall Water District	Water District	443 Cooper Road	Jonesville					
Manifest-Rhinehart Water District	Water District	12080 Hwy 8						
Belah Water System Tank	Water Tank	250 Alonzo Road	Trout					
East Jena Water System Tank	Water Tank	114 Hummingbird Lane	Jena					
Town of Jena Bellen Water Tank	Water Tank	554 Airport Dr	Jena					
Town of Jena Duke Well	Water Tank	1114 Jackson Street	Jena					
Town of Jena Gaharan Well	Water Tank	1256 Azalea Street	Jena					
Town of Jena High School Well	Water Tank	398 Peyton Street	Jena					
Town of Jena Park Water Take	Water Tank	246 Edwards Drive	Jena					
Town of Jena Sandifer Well	Water Tank	1506 W Tennessee Street	Jena					
Town of Jena Welch Well & Take	Water Tank	1230 N First Street	Jena					
LaSalle Water Works District 1 Knapp Water Well	Water Tank	1174 Petunia Drive	Jena					
LaSalle Water Works District 1 New Office Water Well	Water Tank	464 McIntyre Street	Jena					
LaSalle Water Works District 1 Old Office Water Well	Water Tank	1840 Pinehill Road	Jena					
LaSalle Water Works District 1 Charlie Walker Well Chlorine	Water Tank	1107 Aster Street	Jena					
LaSalle Water Works District 1 Charlie Walker Well Chlorine	Water Tank	1089 Aster Street	Jens					

Manifest Rhinehart Water System Tank & Booster Station	Water Tank	8838 Hwy 84 E	Jena					
Manifest Rhinehart Water System Tank & Pump	Water Tank	1211 Bade Loop	Jena					
Nebo Water System Tank & Well	Water Tank	2200 Nebo Belah Road	Jena					
Nebo Water System Well	Water Tank	8890 Hwy 127 S	Jena					
Town of Olla Tank	Water Tank	1003 Town Street	Olla					
Town of Olla Well	Water Tank	284 Standoff Road	Olla					
Town of Olla Tank	Water Tank	286 Standoff Road	Olla					
Town of Olla Well	Water Tank	1285 Plum Street	Olla					
Town of Olla Tank	Water Tank	1289 Plum Street	Olla					
Town of Olla Upper Well McCartney Pasture	Water Tank	1113 Plum Street	Olla					
Town of Olla Lower Well McCartney Pasture	Water Tank	1172 Plum Street	Olla					
Olive & London Water Well	Water Tank	1075 Olive Street	Olla					
London & Blake Water Well	Water Tank	1506 London Street	Olla					
Rogers Community Water System Tank & Well	Water Tank	9414 Hwy 127 S	Jena					
Summerville-Rosefield Water System Tank	Water Tank	115 Pineville Road	Jena					
Summerville-Rosefield Water System Tank	Water Tank	409 Hwy 503	Olla					
Summerville-Rosefield Water System Two Wells & Pump	Water Tank	1380 Black Road	Jena					
Town of Tullos Tank	Water Tank	9648 S Main Street	Tullos	31.82279730717	-92.32886148148			
Town of Tullos Tank & Well	Water Tank	3690 Central Ave	Olla					
Town of Tullos Well	Water Tank	3944 Central Ave	Olla					
Town of Tullos Well	Water Tank	4324 Central Ave	Olla					
Town of Urania Tank	Water Tank	5840 Tannehill Drive	Urania					

Town of Urania Well	Water Tank	536 Water Well Road	Urania					
Town of Urania Tank	Water Tank	1986 N Pine Road	Urania					
Jena Town Hall	Town Hall	2908 E Oak Street	Jena	31.68310357155	-92.132457271120			
Olla Town Hall	Town Hall	1907 Louisiana Street	Olla	31.903304259011	-92.241265327304			
Olla Sub Station	LPSO Substation	1921 Louisiana St	Olla	31.903168819351	-92.241224886212			
Tullos Town Hall & Police Department	Town Hall & Police Department	9877 S Main Street	Tullos	31.820631039598	-92.328187861839			
Urania Town Hall & Police Department	Town Hall & Police Department	2021 E Hardtner Dr	Urania	31.863982426810	-92.295644442561			
LaSalle Parish Courthouse	Courthouse	1050 Courthouse Street	Jena	31.685334418177	-92.132411637108			
LaSalle Parish Fair Barn	DNSAP Site/ Public Gathering	1245 Fairgrounds Drive	Jena	31.692156422664	-92.142542395154			
LaSalle General Hospital	Hospital	187 Nineth Street	Jena	31.693663343727	-92.157684055216			
Hardnter Medical Center	Hospital	1422 Airport Road	Olla	31.899180111456	-92.214862304174			
LaSalle Nursing Home	Nursing Home	139 Nine Street	Jena	31.695507284387	-92.157174246762			
Jena Nursing & Rehabilitation	Nursing Home	5877 Aimwell Road	Jena	31.686368379739	-92.117792757204			
Jena Airport	Airport	289 Hanger Road	Jena	31.669279348563	-92.159788863045			
Olla Airport	Airport	1422 Airport Road	Olla	31.899180111456	-92.214862304174			
LaSalle Parish Police Jury Maintenance Department - Jena	Maintenance Dept	21389 Hwy 8	Jena	31.6794290009518	-92.151759589234			
LaSalle Parish Police Jury Maintenance Department - Olla	Maintenance Dept	1394 Woodyard Road	Olla	31.910845919889	-92.220939855677			
LaSalle Parish Health Unit	Health Unit	1673 N Second Street	Jena	31.685324164406	-92.131681382497			
Catahoula Lake Diversion Canal Control Structure	Diversion Canal Control Structure	7719 Diversion Canal Road	Jonesville	31.479436529912	-92.113385439851			
State of Louisiana Critical Transportation Shelter	CTNS Shelter	3850 Main Street 165	Olla	31.897435969398	-92.234207824758			
Castor Creek Bridge	Bridge	22499 Hwy 84 W	Tullos	31.830528655758	-92.340916319706			

Little River Bridge	Bridge	6945 Hwy 500	Trout	31.754854934503	-92.344890709731			
Little River Bridge	Bridge	19860 US HWY 165 (South Bound Bridge)		31.792980828519	-92.361322596594			
Little River Bridge	Bridge	19870 US HWY 165 (North Bound Bridge)		31.7927499909111	-92.361129352681			
Little River Bridge	Bridge	26699 Hwy 8W	Trout	31.587190733477	-92.305230122782			
Old River Bridge	Bridge	8464 Hwy 84 E	Jonesville	31.610297168621	-92.027632679264			
Town of Jena Maintenance Shop & Sewer Fac.	Maintenance & Sewer Facilities	431 E Bradford ST	Jena	31.683799712592	-92.132254784392			
Town of Tullos Maintenance Shop	Maintenance	9636 S Main St	Tullos	31.822639008885	-92.3245845277642			
Town of Olla Maintenance Shop	Maintenance	3134 Front St	Olla	31.902368844838	-92.244874804577			
Town of Urania Maintenance Shop (New)	Maintenance	2272 Center St Ext	Urania	31.862545335147	-92.296494968507			
Town of Urania Maintenance Shop (Old)	Maintenance	2280 Center St Ext	Urania	31.862274629042	-92.296788402050			
Town of Olla Police Department	Police Department	1921 Louisiana St	Olla	31.903168819351	-92.241224886212			
Town of Jena Police Department	Police Department	1810 N Second St	Jena	31.68799712592	-92.132254784392			
State of Louisiana Critical Transportation Shelter	CTNS Shelter (State Ran)	3850 Main St 165	Olla	31.897435969398	-92.234207824758			

Town of Jena								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Jena Police Department	Law Enforcement	1810 N Second Street	Jena	31.683809	-92.132224	\$150,000	2005	Unreinforced Masonry
Jena Fire Station	Fire Station	540 E. Bradford St.	Jena	31.679596	-92.129840	\$168,000	2000	Metal
Jena Fire North Substation	Fire Station	3360 Austin Rd.	Jena	31.697430	-92.122908	\$48,000	2013	Metal
Jena Town Hall	Municipal	2908 E. Oak St.	Jena	31.683120	-92.132526	\$475,000	1956	Unreinforced Masonry
Jena Senior Citizens Center	Recreation	1850 N Second Street	Jena	31.683588	-92.132254	\$225,000	1940	Unreinforced Masonry
Jena Wastewater Treatment Plant	Public Utility	441 E Bradford Street	Jena	31.678263	-92.129248	4000000	1985	Unreinforced Masonry
Jena Skating Rink	Recreation	222 Edwards Drive	Jena	31.685054	-92.122048	\$100,000	1953	Unreinforced Masonry
Duke Water Well	Water Well	1114 Jackson St.	Jena	31.683609	-92.115533		9-1965	
Gaharan Water Well	Water Well	1256 Azalea St.	Jena	31.671190	-92.133742		3-1986	
Sandifer Water Well	Water Well	1506 W. Tennessee St.	Jena	31.697102	-92.135621		8-1969	
Welch Water Well	Water Well	1230 N. First St.	Jena	31.706786	-92.135611		4-1999	
High School Water Well	Water Well	398 Peyton St.	Jena	31.690038	-92.126842		1-1985	

Town of Olla								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Olla Town Hall	Municipal Building	1907 Louisiana St.	Olla	n/a	n/a	n/a	n/a	Reinforced Masonry
Olla Police Sub-Station	Police Sub-Station	1921 Louisiana St.	Olla	n/a	n/a	n/a	n/a	Reinforced Masonry
Dixie Center	Community Center	2976 Front St.	Olla	n/a	n/a	n/a	n/a	Reinforced Masonry
Holloway Building	Building leased by State of Louisiana for an Evacuation Shelter	3820 Main Street 165	Olla	n/a	n/a	n/a	n/a	Reinforced Masonry
Fire Station #1	Fire Station	3435 Main St.	Olla	n/a	n/a	n/a	n/a	Steel
Fire Station #2	Fire Station	1957 Central Ave.	Olla	n/a	n/a	n/a	n/a	Steel
Town Maintenance Shop	Public Works Maintenance Shop	3134 Front Street	Olla	n/a	n/a	n/a	n/a	Steel
Olla Elementary School	School	4170 School Drive	Olla	*not owned by town	n/a	n/a	n/a	Reinforced Masonry
LaSalle High School	School	1460 Blake Street	Olla	*not owned by town	n/a	n/a	n/a	Steel
LaSalle Recreation District #22	Community Center	2412 LaSalle Drive	Olla	*not owned by town	n/a	n/a	n/a	Steel

Town of Tullos								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Tullos Fire Department	To house fire truck and equipment and hold monthly meeting	10187 S Main St	Tullos	31.8178904	92.3306073			Metal
Tullos Town Hall	Administrative office	9887 S Main St	Tullos	31.820631	92.3281879			Wood
Tullos Police Dept	Chief of Police Office/ Administrative law enforcement	9888 S Main St	Tullos	31.820631	92.3281879			Reinforced Masonry
Tullos Water Tank	Water storage	9648 S Main St	Tullos	31.8227973	92.3288861			Steel
Tullos Water Shop	houses town equipment and tools	9636 S Main St	Tullos	31.822639	92.3245845			Metal

Town of Uria								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
LASALLE JR. HIGH SCHOOL	SCHOOL	5960 Tannehill Drive	Uria					
FIRE HOUSE #2	FIRE HOUSE	1902 North Pine Road	Uria					
FIRE HOUSE #1	FIRE HOUSE	1910 West Hardtner St.	Uria					
URANIA TOWN HALL	OFFICE BUILDING	2021 East Hardtner	Uria					
URANIA TOWN HALL	OFFICE BUILDING	2021 East Hardtner	Uria					
URANIA SHOP	SHOP	2280 Center Street Extension	Uria					
WATER TOWER #2	WATER TOWER	1986 North Pine Road	Uria					
WASTEWATER TREATMENT PLANT	TREATS WASTEWATER	7731 State Hwy 125	Uria					
WATER TOWER #1	WATER TOWER	5840 Tannehill Drive	Uria					
WATER WELL'S	HOUSE'S WATER WELL'S	536 Water Well Road	Uria					
WATER WELL ROAD	ROAD TO OUR WELL'S	Water Well Road	Uria					

Jena Band of Choctaw								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
JBC CULTURAL & SOCIAL SERVICES BLDG	serves as the Tribe's Culture & Heritage Department & Social Services Department	1052 Chanaha Hina Street	Trout	31.696022	-92.187264	\$29,950	2001	Concrete
HEALTH CLINIC	serves as the Tribe's health clinic and Social Services	1018 Chahta Yakni Street	Trout	31.696072	-92.187741	\$29,950	2005	Concrete
JBC ADMINISTRATION BUILDING	serves as the Administration offices and offices of the Tribal Chief & Council	551 Tuska Hina	Trout				2020	
TWISTED FEATHER	retail store	3011 Hina Chahta Street	Jena	31.691681	-92.155612	\$580	2011	Concrete
BABY FEATHERS LEARNING CENTER	vacant	1849 Cowart Street	Jena	31.687025	-92.101326	\$500	1977	Metal
ROARK'S	JBC Maintenance Department	11925 Hwy 84	Jena	31.69236	-92.156957	\$16,300	Unknown	Metal
MIKO'S GAMING	gaming facility open to the public	3020 Hina Chahta Street	Jena				2017	
MIKO'S STEAKS & SPIRITS RESTAURANT	tribal restaurant open to the public	3020 Hina Chahta Street	Jena				2017	
ITC OFFICE	leased out to Inter-Tribal Council of LA	1279 W. Cotton St	Jena				2017	

Vulnerable Populations

LaSalle Parish Planning Area					
All Hospitals (Private or Public)	Address	City	Zip Code	Latitude	Longitude
Jena Choctaw Health Clinic	1018 Chahta Yakni Street	Trout	71317	31.696072	-92.187741
LaSalle General Hospital	187 Nine Street	Jena	71342	31.693663343727	-92.157684055216
Hardtner Medical Center	1102 N Pine Road	Urania	71480	31.860224798468	-92.275566354343
Hardtner Medical Clinic	1049 North Pine Rd.	Urania	71465		
Hardtner Family Clinic	15712 Hwy 165	Urania	71465		
Nursing Homes (Private or Public)	Address	City	Zip Code	Latitude	Longitude
Jena Nursing and Rehab	5877 Aimwell Rd.	Jena		31.685758	-92.118186
LaSalle Nursing Home	139 Ninth Street	Jena	71342	31.695507284387	-92.157174246762
Jena Nursing and Rehab	5877 Aimwell Road	Jena	71342	31.686368379739	-92.117792757204
Mobile Home Parks	Address	City	Zip Code	Latitude	Longitude
Carpenter St. Trailer Park	333 Carpenter St.	Jena		31.678689	-92.122758
Hollis Trailer Park	334 Carpenter St.	Jena		31.678432	-92.122511
Bradford St. Trailer Park	235 E. Bradford St.	Jena		31.677852	-92.126648
Unnamed park owned by Darrel McCartney	1850 Tess St.	Jena		31.693606	-92.130854
Unnamed park owned by Darrel McCartney	2201 N. First St.	Jena		31.693502	-92.131723
Ganey Trailer Park	1130 N. Third St.	Jena		31.687840	-92.130206
Unnamed park owned by Janet Meyers	2300 Allen St.	Jena		31.703756	-92.124807
Meyers Trailer Park	123 Meyers Loop	Jena		31.679199	-92.114575
Robertson Trailer Park	5078 Breithaupt St.	Jena		31.680525	-92.117890
Jena Band of Choctaw Mobile Park	King Street	Jena	71342		
Carpenter Street Mobile Home Park	333 Carpenter Street	Jena	71342	31.678279093618	-92.122534744350
Ganey Trailer Park	1130 N Third Street Ext	Jena	71342	31.687973581921	-92.130147751698
Grand Oaks Mobile Home Park	9050 Grand Oaks Court	Jena	71342	31.682651006959	-92.154980288653
Hollis Trailer Park	334 Carpenter Street	Jena	71342	31.678309763565	-92.122618784803
Jena Band of Choctaws Mobile Home Park	1124 King Street	Jena	71342	31.687117277052	-92.153877794087
Keene's Trailer Park	1970 Cowart Street	Jena	71342	31.687137492396	-92.111804383497
M & M Mobile Home Park	123 Meyers Loop	Jena	71342	31.679795666082	-92.114152603943
Patricia's Trailer Park	2201 N First Street	Jena	71342	31.693515624582	-92.131802959904
Patricia's Trailer Park	1850 Tess Street	Jena	71342	31.693614911855	-92.130848781446
Robertson Trailer Park	5078 Breithaupt Street	Jena	71342	31.680468467282	-92.117822725098
Seals Trailer Park	264 Flowers Road	Trout	71371	31.710928613875	-92.212845897407
Shady Acres Mobile Home Park	235 E Bradford Street	Jena	71342	31.676931996861	-92.125713324282
Tullos RV Park/ Robert Ponds	18060 Hwy 165 S	Tullos			

National Flood Insurance Program (NFIP)

National Flood Insurance Program (NFIP)						
	LaSalle Unincorporated	Town of Jena	Town of Olla	Town of Tullos	Town of Urania	Jena Band of Choctaw
Insurance Summary						
How many NFIP policies are in the community? What is the total premium and coverage?	78; \$9,191,000	5; \$920,000	3; \$760,000	N/A	N/A	N/A
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?	329 Claims \$651,803.00	5, \$230,471	3: \$0	N/A	N/A	N/A
How many structures are exposed to flood risk within the community?	N/A	67	N/A	N/A	N/A	15
Describe any areas of flood risk with limited NFIP policy coverage.	N/A	N/A	N/A	N/A	N/A	N/A
Staff Resources						
Is the Community FPA or NFIP Coordinator certified?	no	no	N/A	N/A	N/A	N/A
Is flood plain management an auxiliary function?	yes	yes	N/A	N/A	N/A	N/A
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Flood zone Determination	permit review	N/A	N/A	N/A	N/A
What are the barriers to running an effective NFIP program in the community, if any?	N/A	Poor maps, no established BFEs	N/A	N/A	N/A	Funding & Staff
Compliance History						
Is the community in good standing with the NFIP?	Yes	Yes	N/A	N/A	N/A	N/A
Are there any outstanding compliance issues (i.e., current violations)?	No	No	No	No	No	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Cav: 8-28-2009 CAC: 8-9-2004	April 27,2015	N/A	N/A	N/A	N/A
Is a CAV or CAC scheduled or needed? If so, when?	No	No	No	No	No	No
Regulation						
When did the community enter the NFIP?	Emergency Phase 4- 30-1973; Regular Phase 11-1-1985	10/5/1993	N/A	N/A	N/A	N/A
Are the FIRMs digital or paper?	Both	Paper	N/A	N/A	N/A	N/A
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Meet	Meet	Meet	Meet	Meet	Meet
Community Rating System (CRS)						
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	N/A	N/A	N/A

