



Beauregard Parish Hazard Mitigation Plan Update Public Meeting

October 27th, 2020

DeRidder, LA



Introductions

Stephenson Disaster Management Institute (SDMI) at LSU

- Lauren Stevens – Associate Director, Disaster Management Programs
- Chris Rippetoe – Hazard Mitigation Program Manager

Beauregard Parish OHSEP Director/Parish Staff

- Scott Greenmun– OHSEP Director

Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP)

- Jeffrey Giering – State Hazard Mitigation Officer



Agenda

- **Introductions**
- **Hazard Mitigation Overview**
- **Hazard Mitigation**
- **Planning Process Risk Assessment**
- **Public Outreach Activity**



Why are we here?



Beauregard Parish



This document has been prepared by:
Louisiana Governor's Office of Homeland Security
and Emergency Preparedness
7667 Independence Blvd.
Baton Rouge, LA 70806

With Support From:
Department of Geography and Anthropology
Department of Construction Management
Louisiana State University
Baton Rouge, LA 70803

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(UNO-CHART)
2000 Lakeshore Drive
New Orleans, LA 70148



Hazard Mitigation Is.....

- Any action taken to reduce long term risk to life and property;
- On-going process that occurs before, during, and after disasters;
- Mitigation actions help prevent damage to a *community's infrastructure, economic, cultural and environmental assets*;
- Implementation of mitigation actions leads to building stronger, safer and smarter!

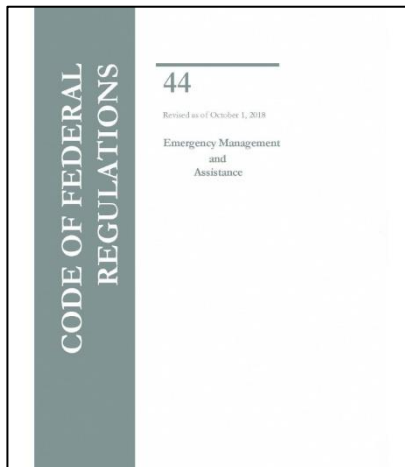


Why Are We Required To Have A Hazard Mitigation Plan?

- Disaster Mitigation Act of 2000 (DMA 2000)

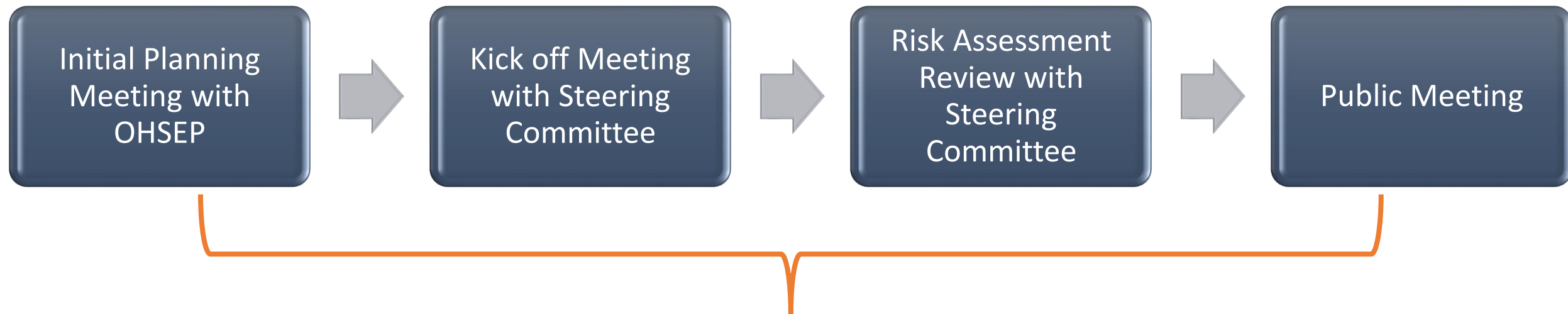
Section 322 of the Act specifically addresses mitigation planning and requires state and local governments to prepare multi-hazard mitigation plans as a precondition for receiving FEMA mitigation project grants.

- Meet federal requirements of Title 44 Code of Regulations (CFR) §201.6 for approval and eligibility to apply for FEMA Hazard Mitigation Assistance grant programs.



- The approved Beauregard Parish Hazard Mitigation Plan will allow for distribution of HM funding following future disasters.

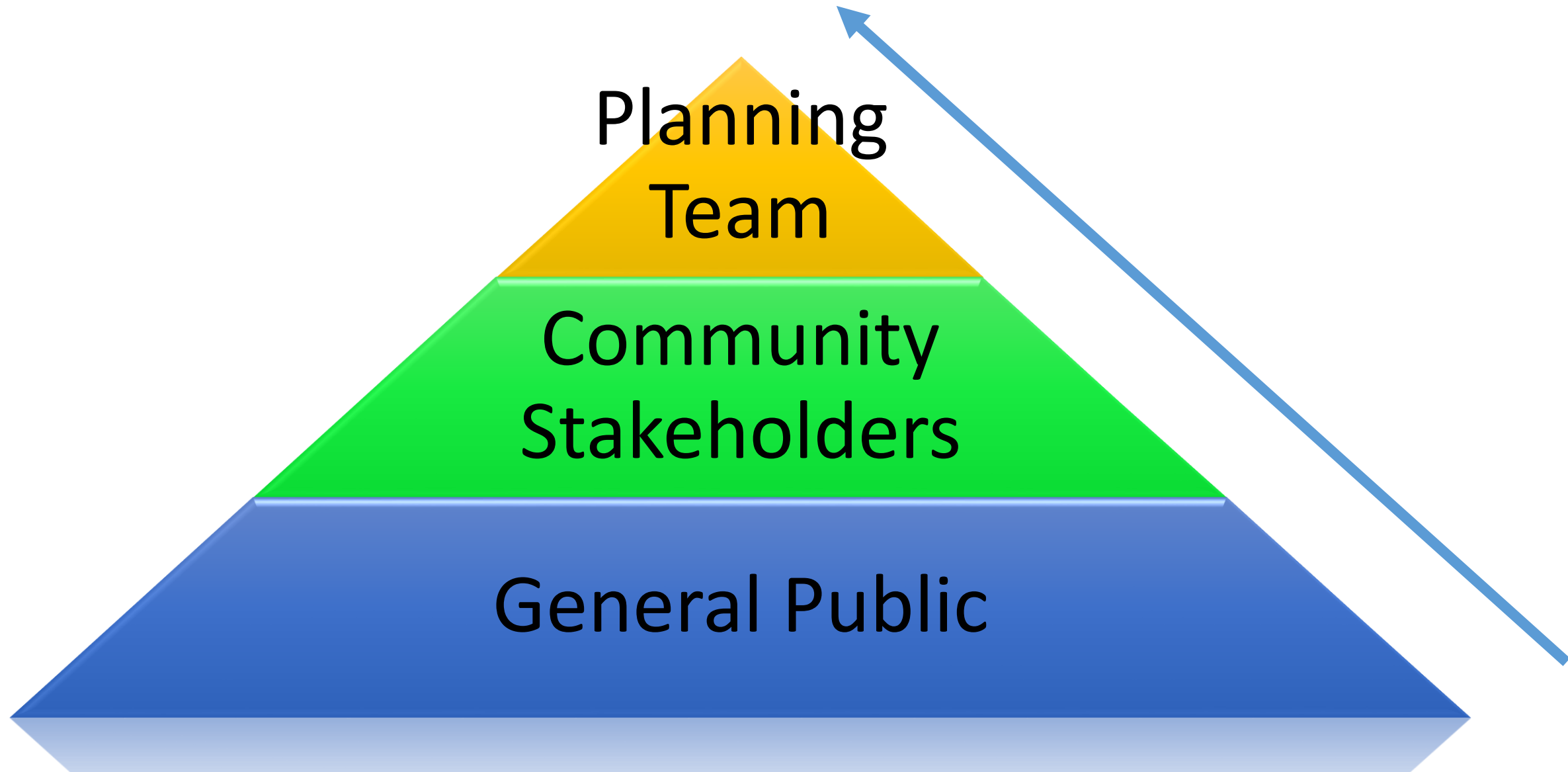
Planning Process to Date



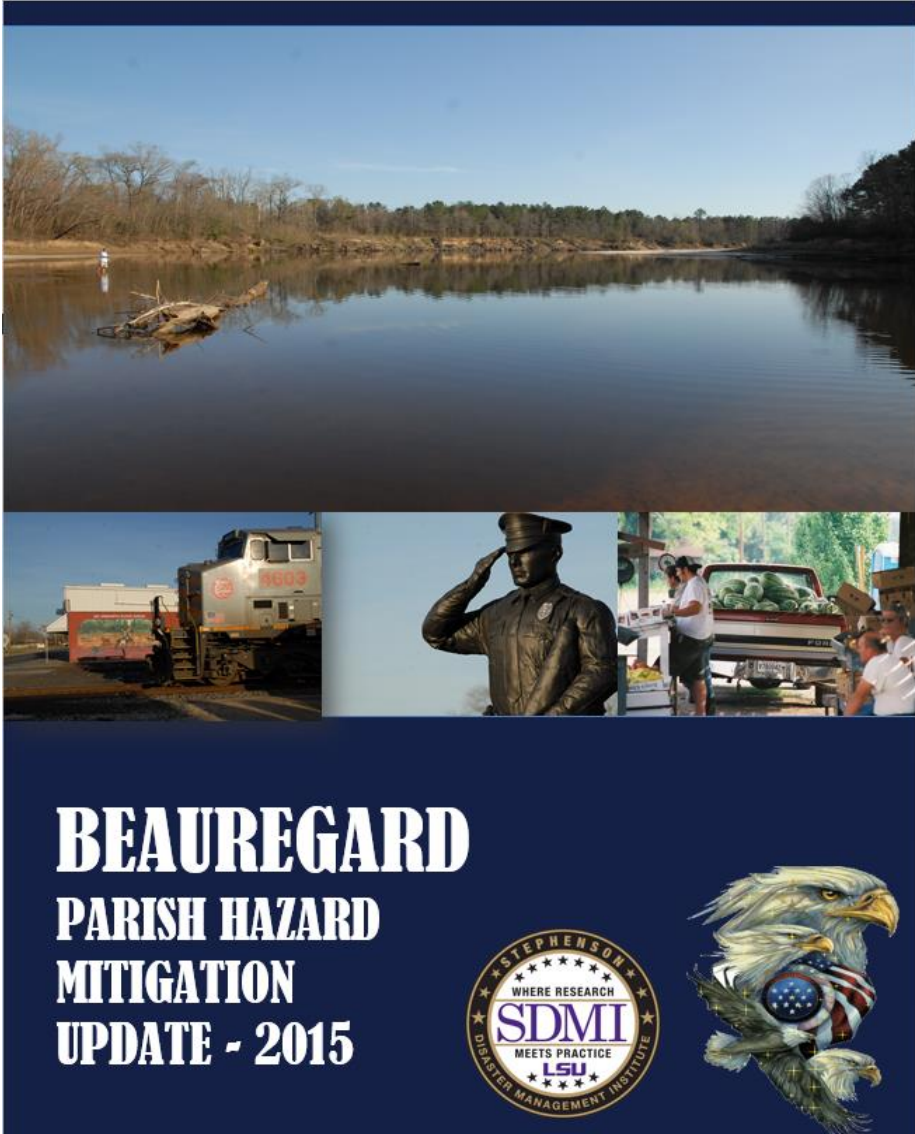
*Constant communication with Parish
and committee members!*



Collaborative Planning Approach



Planning Development



Plan Layout

- **Section 1: Introduction**
 - Updated parish description
 - Updated demographics
 - Economics
- **Section 2: Hazard Identification and Parish-wide Risk Assessment**
- **Section 3: Capability Assessment**
- **Section 4: Mitigation Strategies**
 - New actions
 - Action updates
 - Survey results



Plan Layout

- **Appendix A:** Planning Process
- **Appendix B:** Plan Maintenance
- **Appendix C:** Parish Essential Facilities
- **Appendix D:** Plan Adoption
- **Appendix E:** State Required Worksheets



Hazard Identification and Risk Assessment

- The plan includes descriptions of the natural hazards that affect the jurisdictions in the planning area.
- The hazards identification includes the following:
 - *locations affected*
 - *extent or strength*
 - *previous occurrences*
 - *probability of future events*



Hazard Identification and Risk Assessment

- Based on Currently Profiled Risks
- Any Newly Identified Risks
- Prevalent Hazards
- Previous Occurrences
- Probability of Future Events
- Assets Inventory
- Essential Facilities
- Hazard Impact
- Future Development
- Future Hazard Impacts
- Zoning and Land Use
- Hazard Profiles



Hazard Identification and Risk Assessment

- Drought



- Excessive Heat

- Flooding



- Sinkholes

- Thunderstorms

- Tornadoes



- Tropical Cyclones

- Wildfires

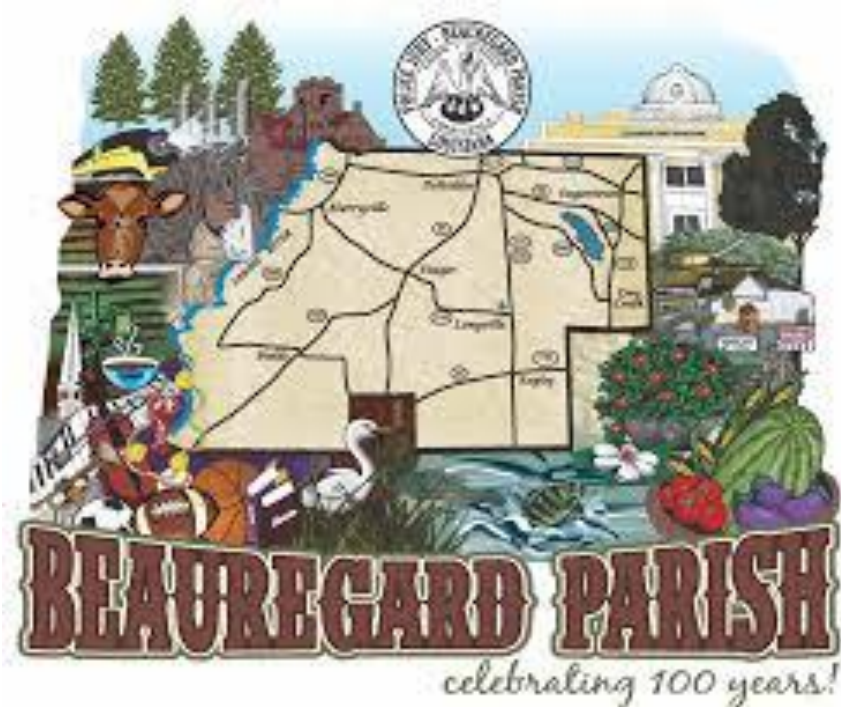


Risk Matrix for Beauregard Parish

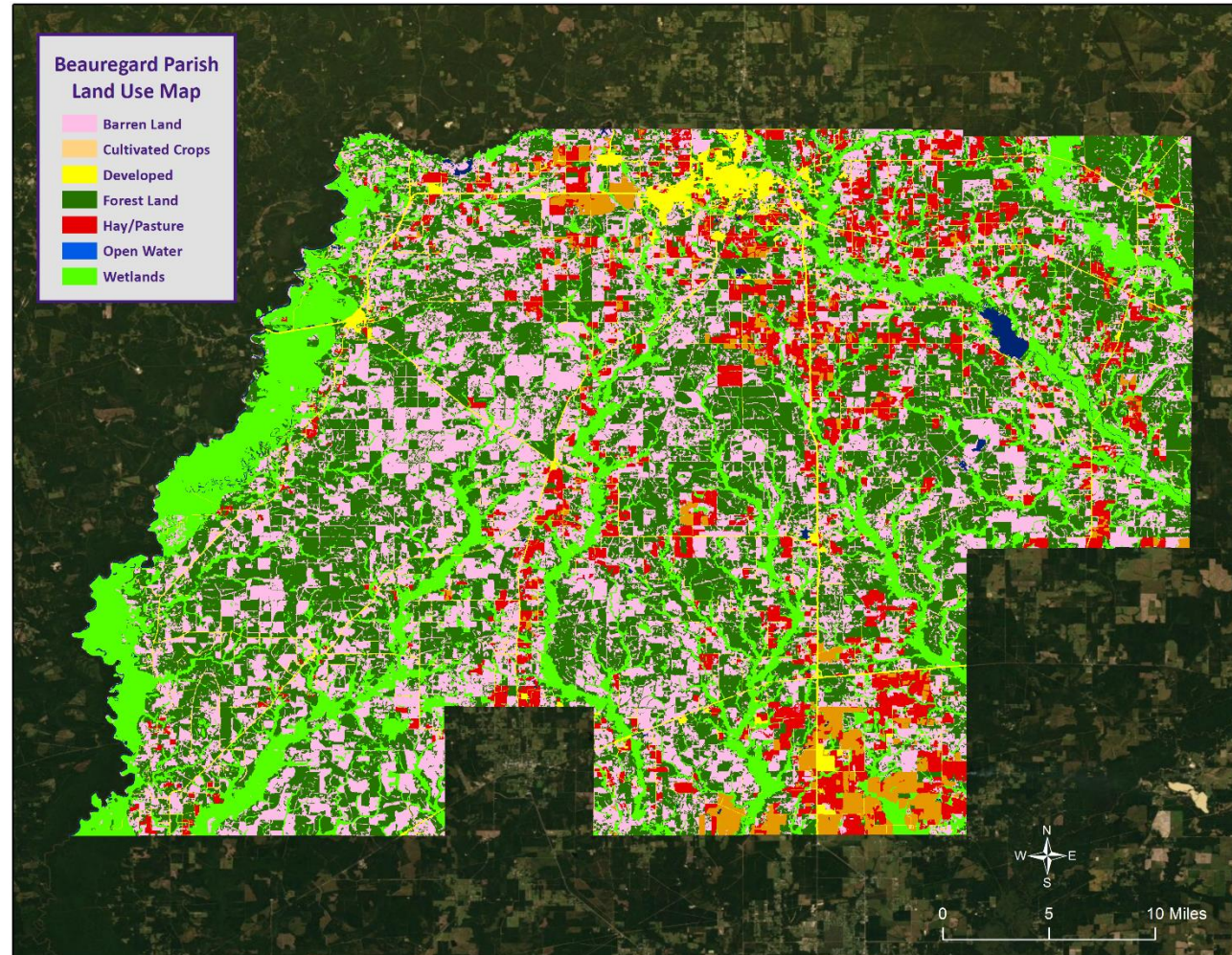
Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Drought	2	2	4	2	3	2.55
Excessive Heat	1	1	4	1	4	2.05
Flooding	3	4	3	4	3	3.4
Sinkholes	1	2	1	4	2	1.85
Thunderstorms - Hail	4	2	3	3	1	2.7
Thunderstorms – Lightning	3	2	2	3	1	2.25
Thunderstorms – Winds	4	2	3	3	1	2.7
Tornadoes	4	3	2	4	3	3.2
Tropical Cyclones	3	4	4	1	4	3.3
Wildfires	1	2	3	3	4	2.4



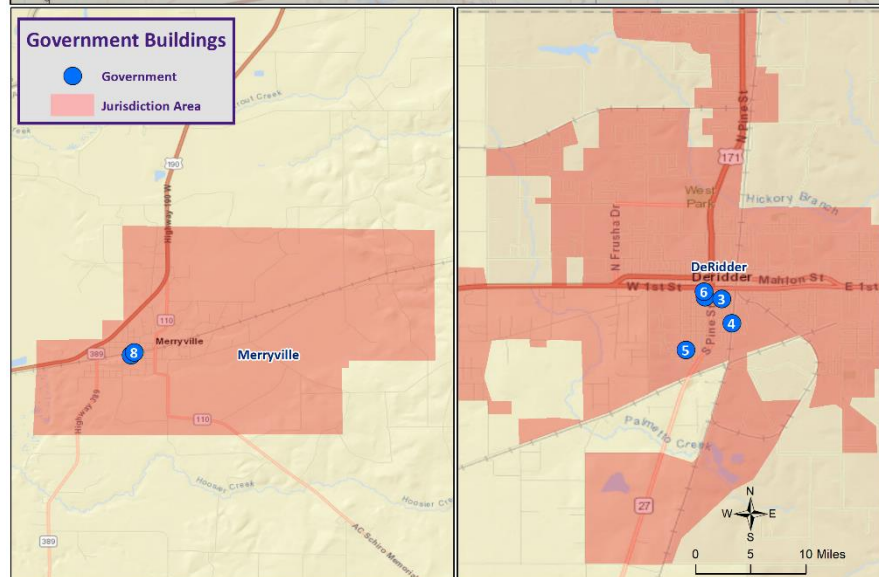
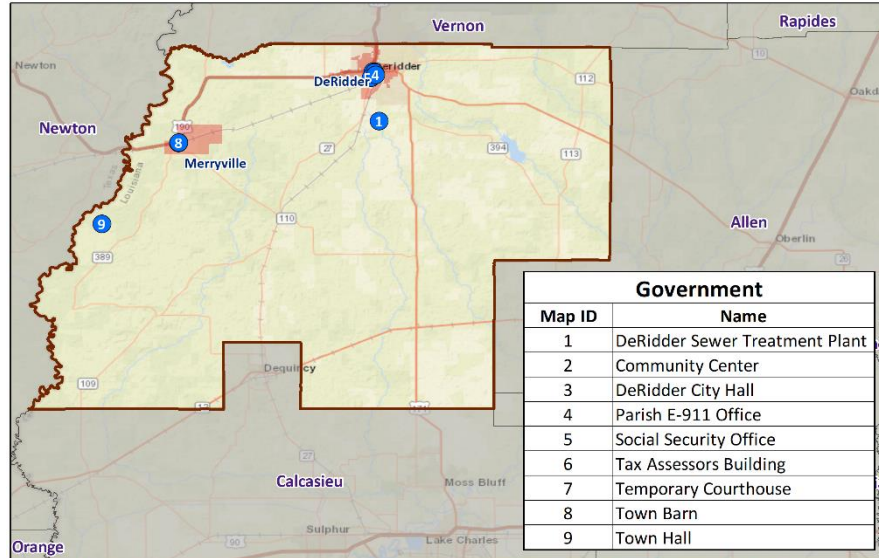
Risk Assessment Maps



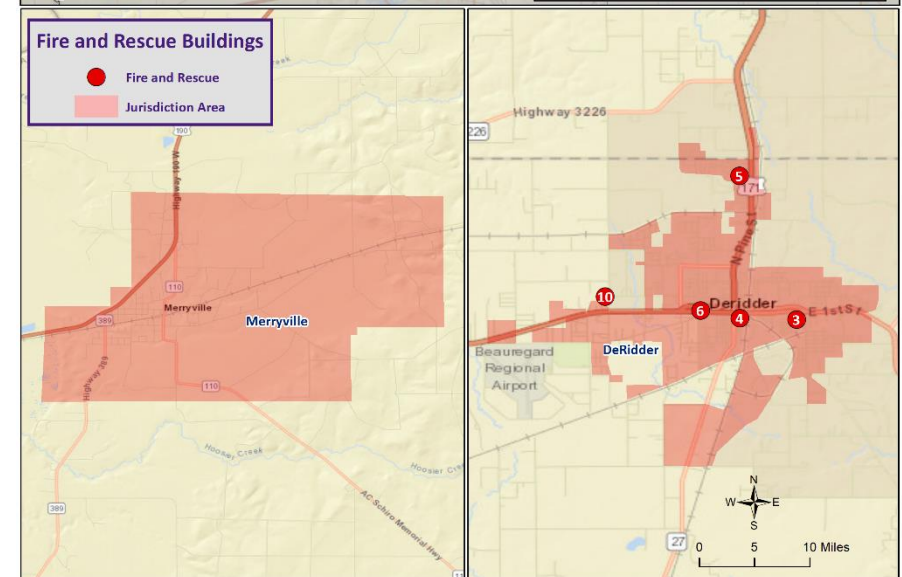
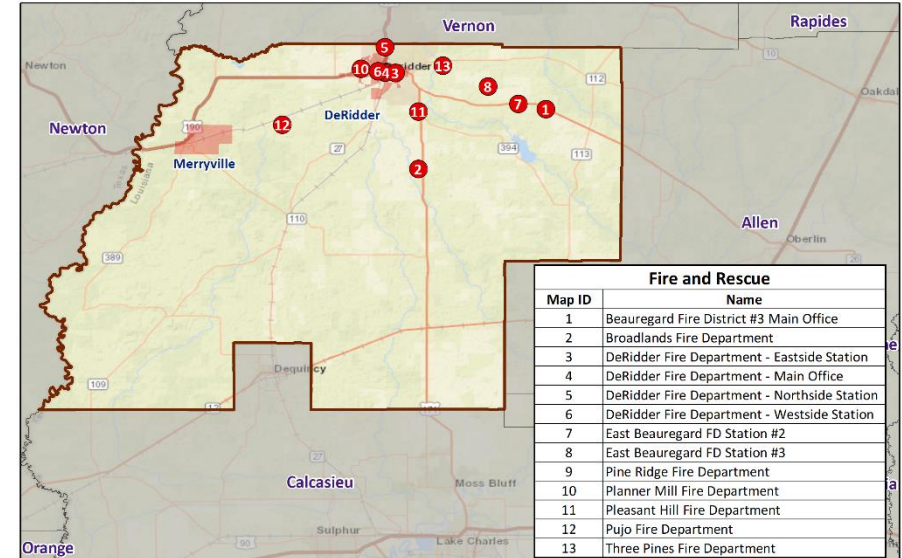
Beauregard Parish Land Use



Critical Facilities: Civil Government



Critical Facilities: Fire & SAR



Law Enforcement	
Map ID	Name
1	Beauregard Parish Sheriff Office
2	DeRidder Police Department
3	Police Station

Law Enforcement Buildings

- Law Enforcement
- Jurisdiction Area

Merryville, Louisiana

De Ridder, Louisiana

Scale: 0 to 10 Miles

Compass Rose: N, S, E, W

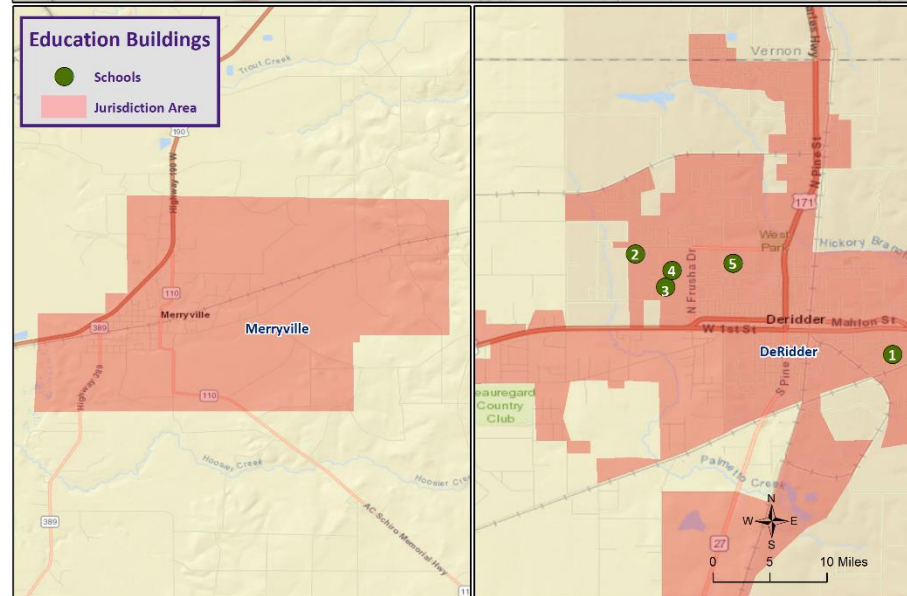
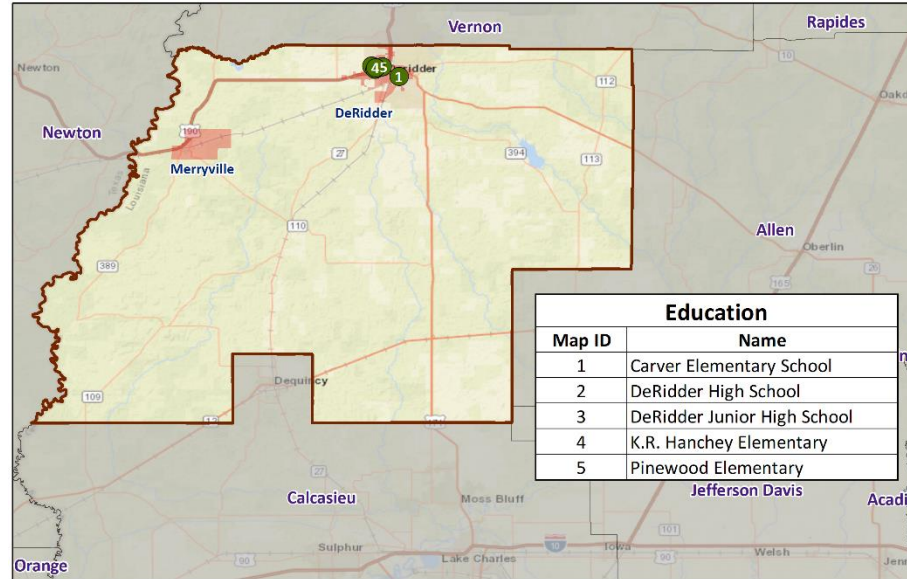
Public Health	
Map ID	Name
1	Beauregard Health Systems

Public Health Buildings

- Public Health
- Jurisdiction Area

The maps show the location of the DeRidder Public Health building (marked with a blue dot) and the surrounding jurisdiction area (shaded in red). The left map shows the regional context, including major roads like Highway 110 and Highway 389, and nearby towns like Merryville. The right map provides a detailed view of the city center, showing streets like N Frusha Dr, W 1st St, and Deridder Mallon St, as well as landmarks like the Beauregard Country Club and the DeRidder Public Health building. A compass rose and a scale bar (0 to 10 miles) are also included in the right map.

Critical Facilities: Education



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.
- There are four classes of drought, based upon what is impacted by the shortage of water:
 - Meteorological Drought
 - Hydrologic Drought
 - Agricultural Drought
 - Socioeconomic Drought
- The entire parish can be affected by drought

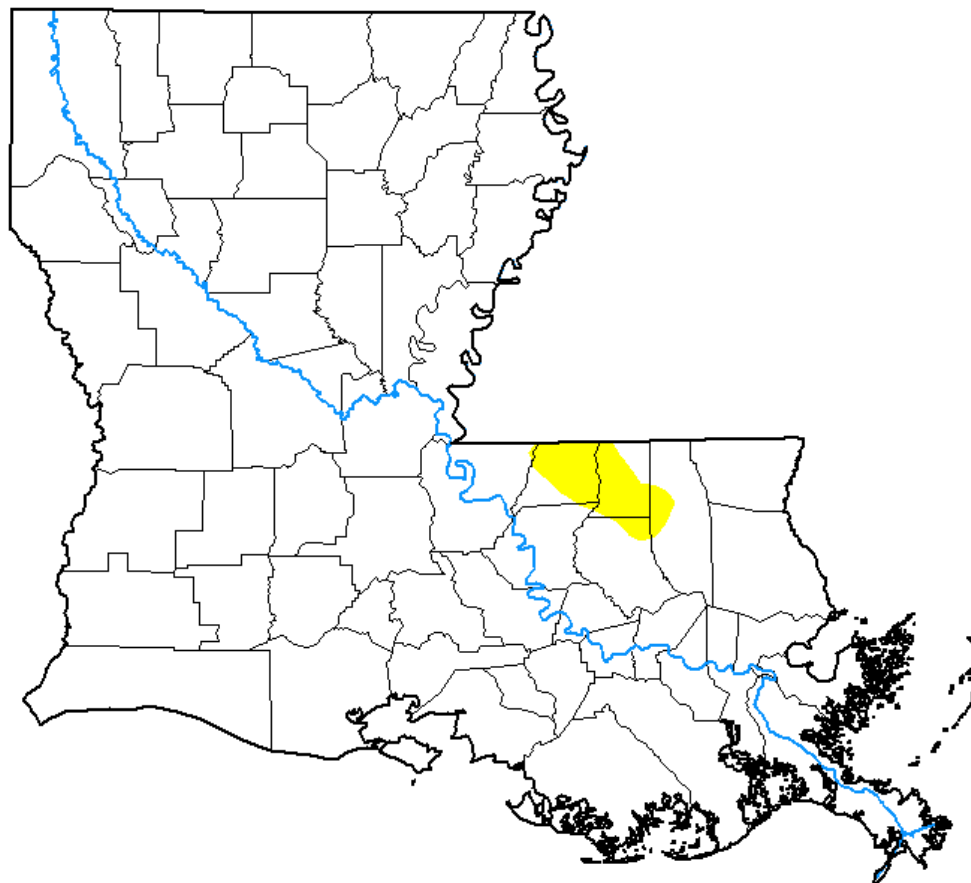
Drought

U.S. Drought Monitor Louisiana

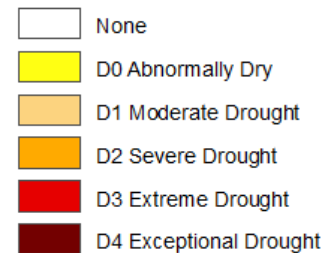
September 29, 2020

(Released Thursday, Oct. 1, 2020)

Valid 8 a.m. EDT



Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Brad Rippey
U.S. Department of Agriculture



droughtmonitor.unl.edu

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.”



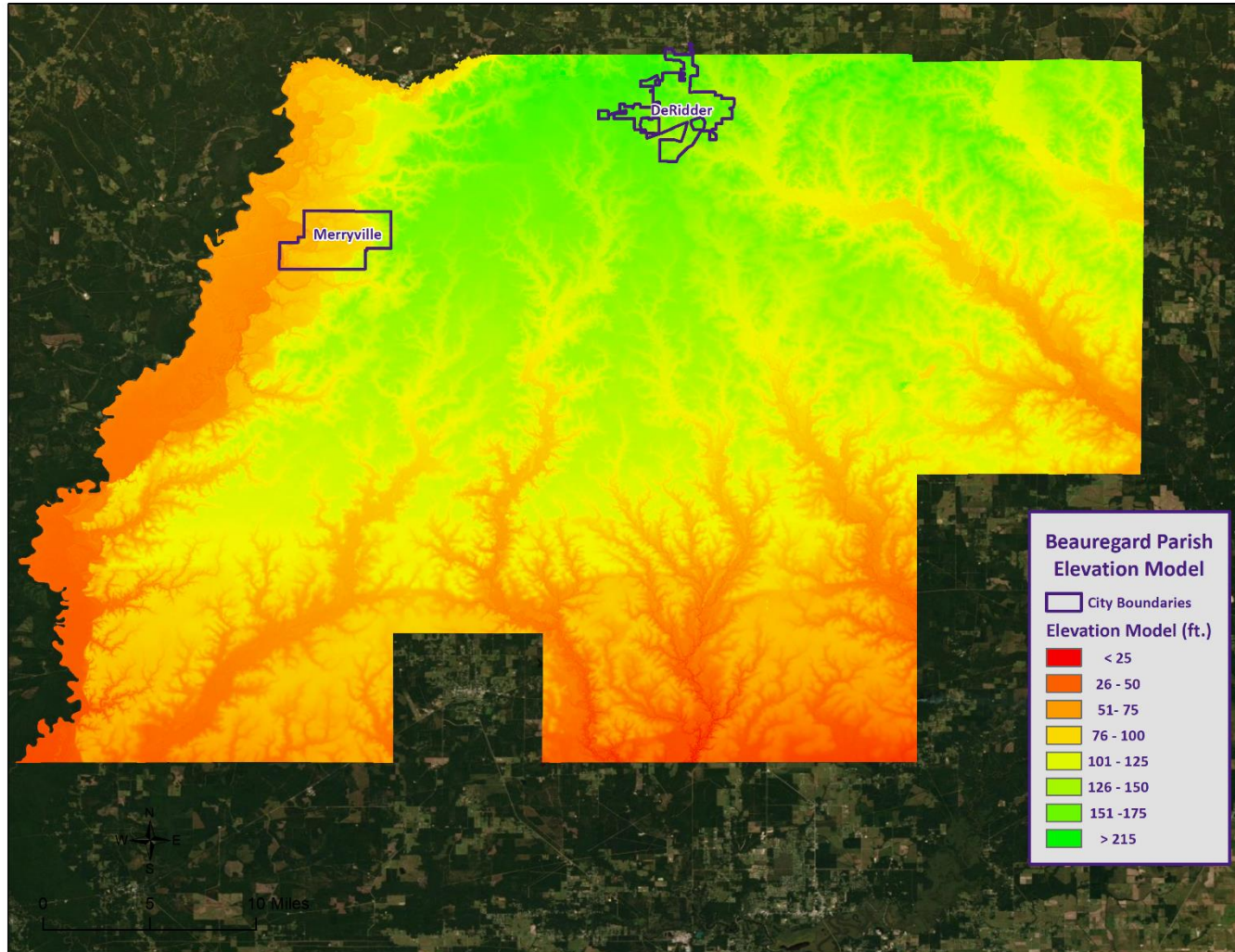
Flooding

Types of flooding may include the following:

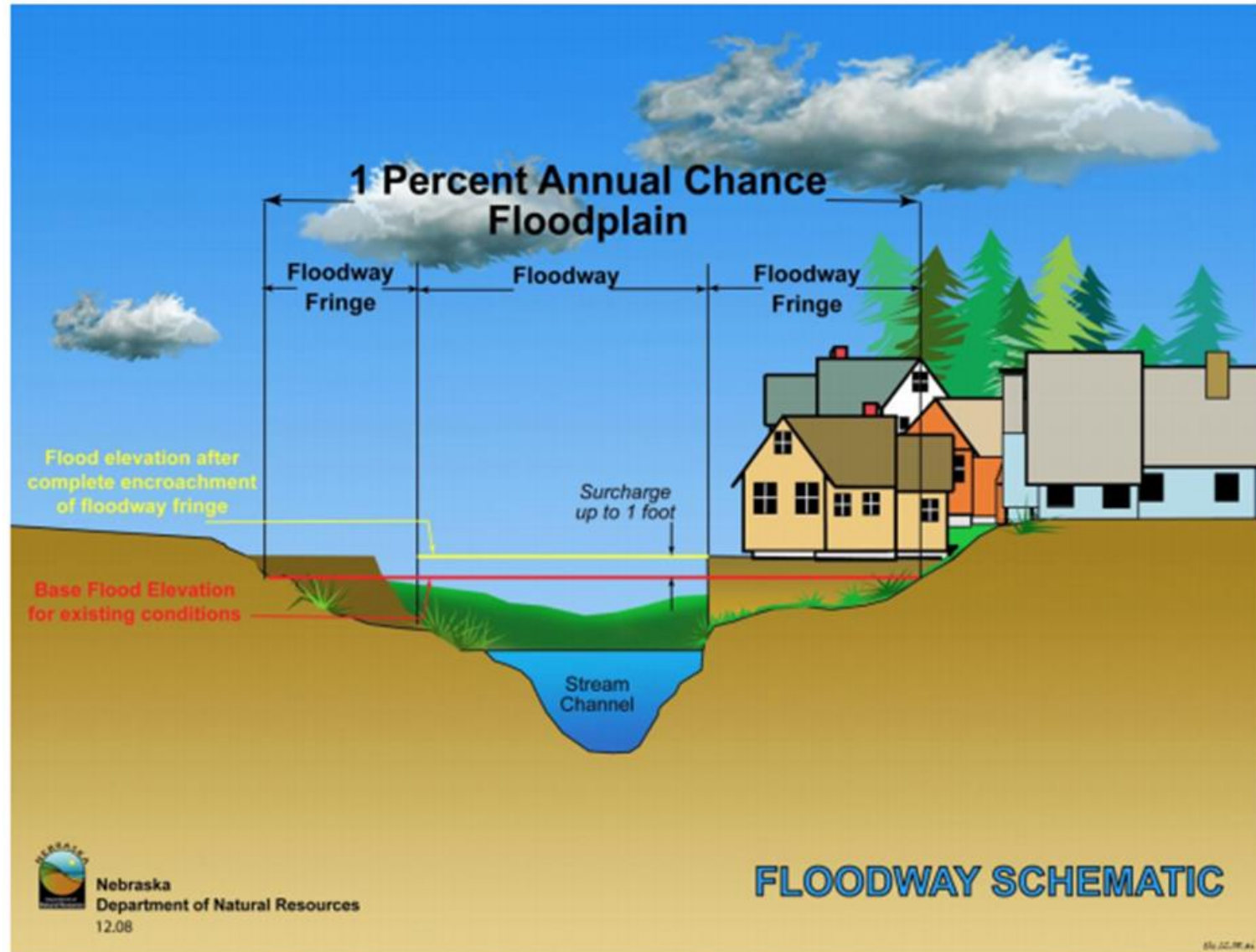
- Riverine
- Flash
- Ponding
- Backwater
- Urban
- Coastal



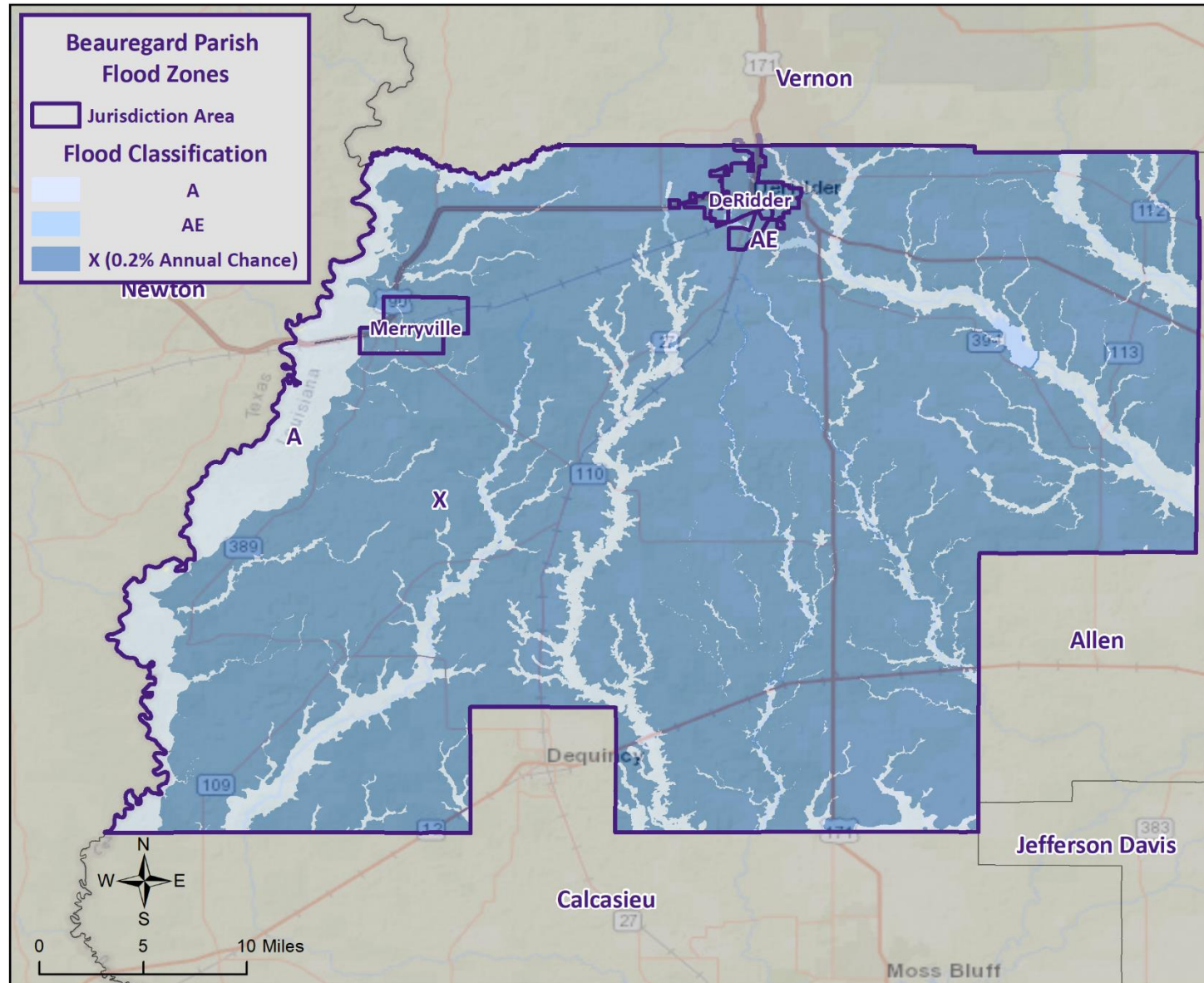
Digital Elevation Model



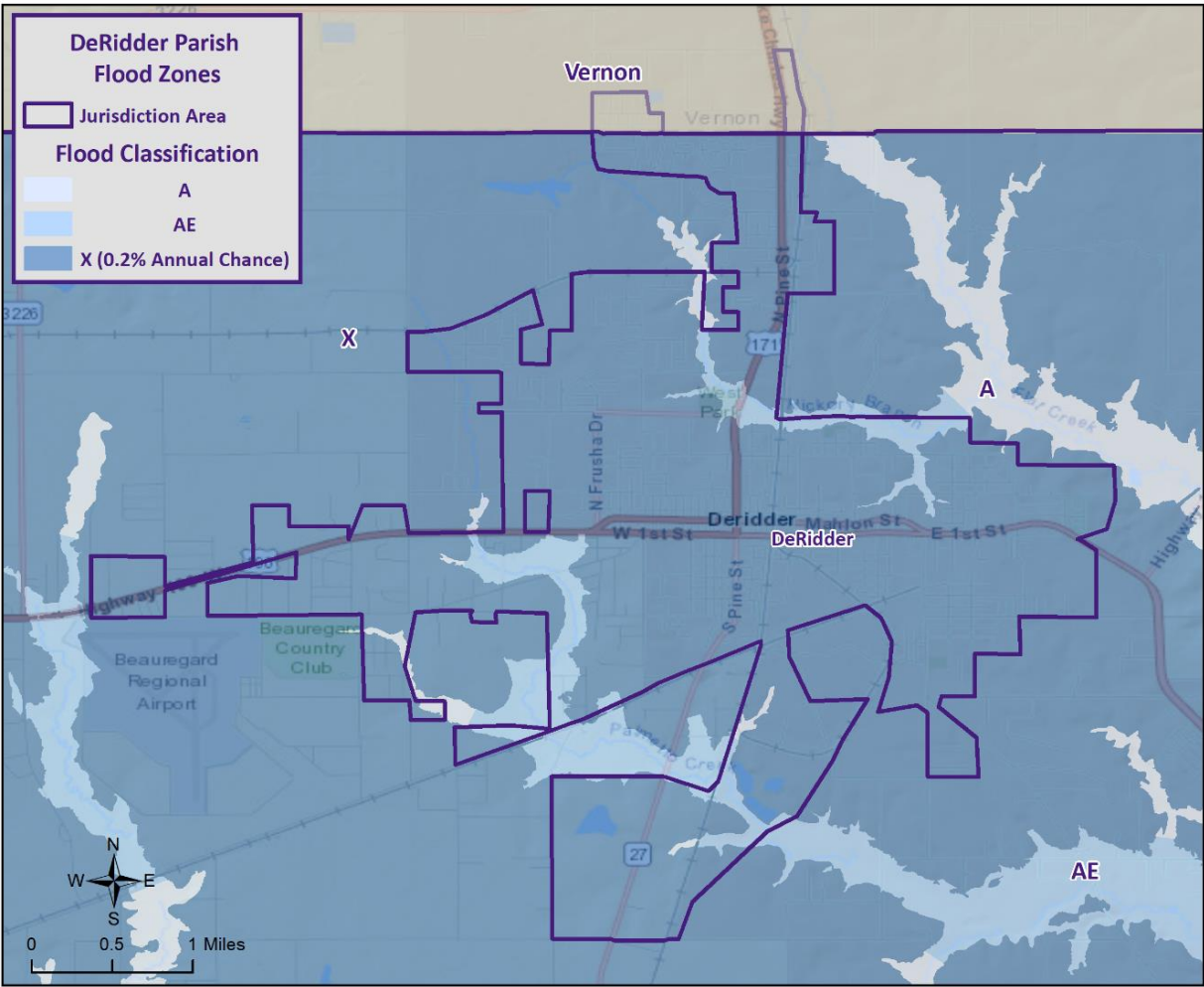
Floodway Diagram



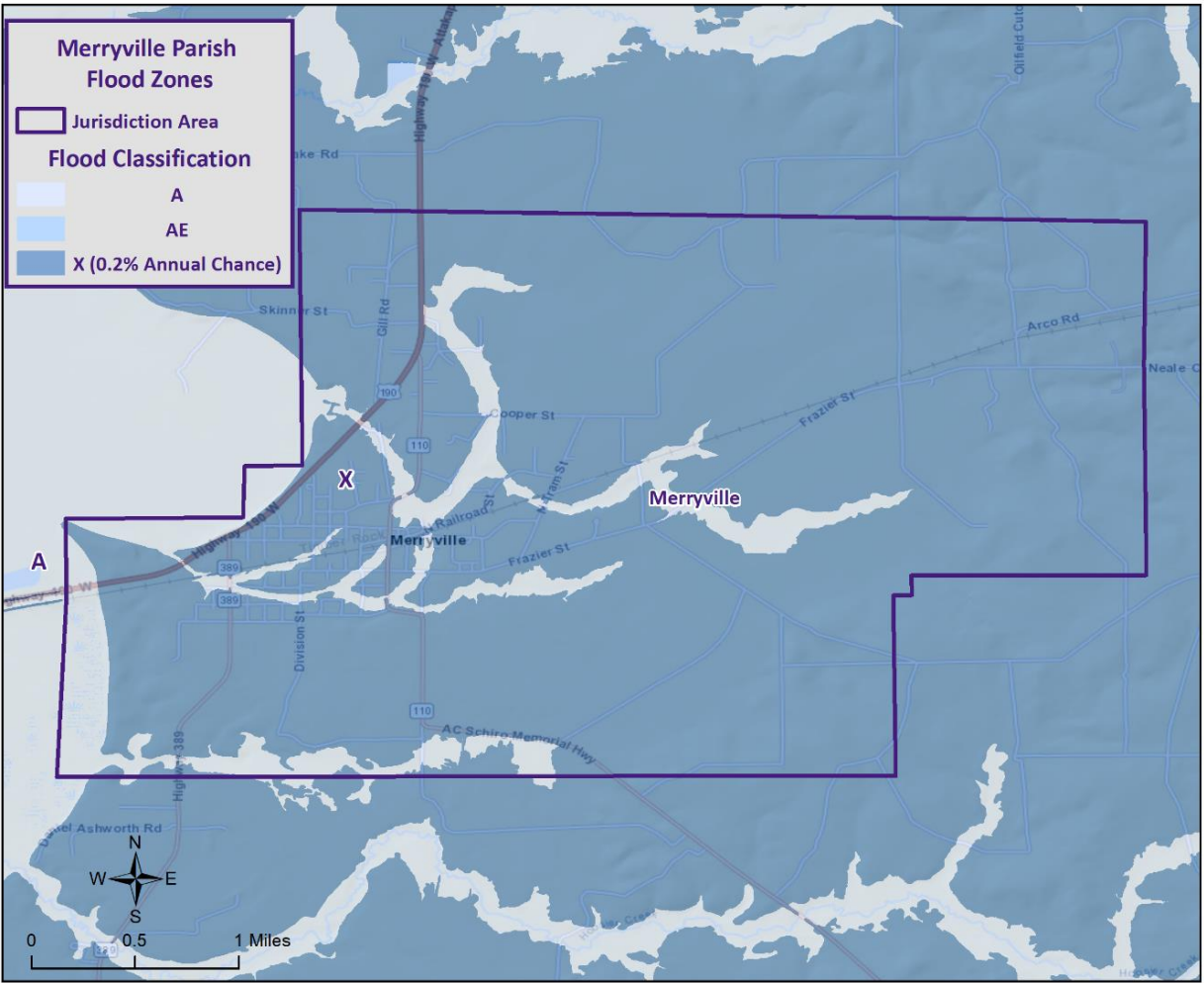
Beauregard Parish Flood Map



Flood Map: DeRidder



Flood Map: Merryville

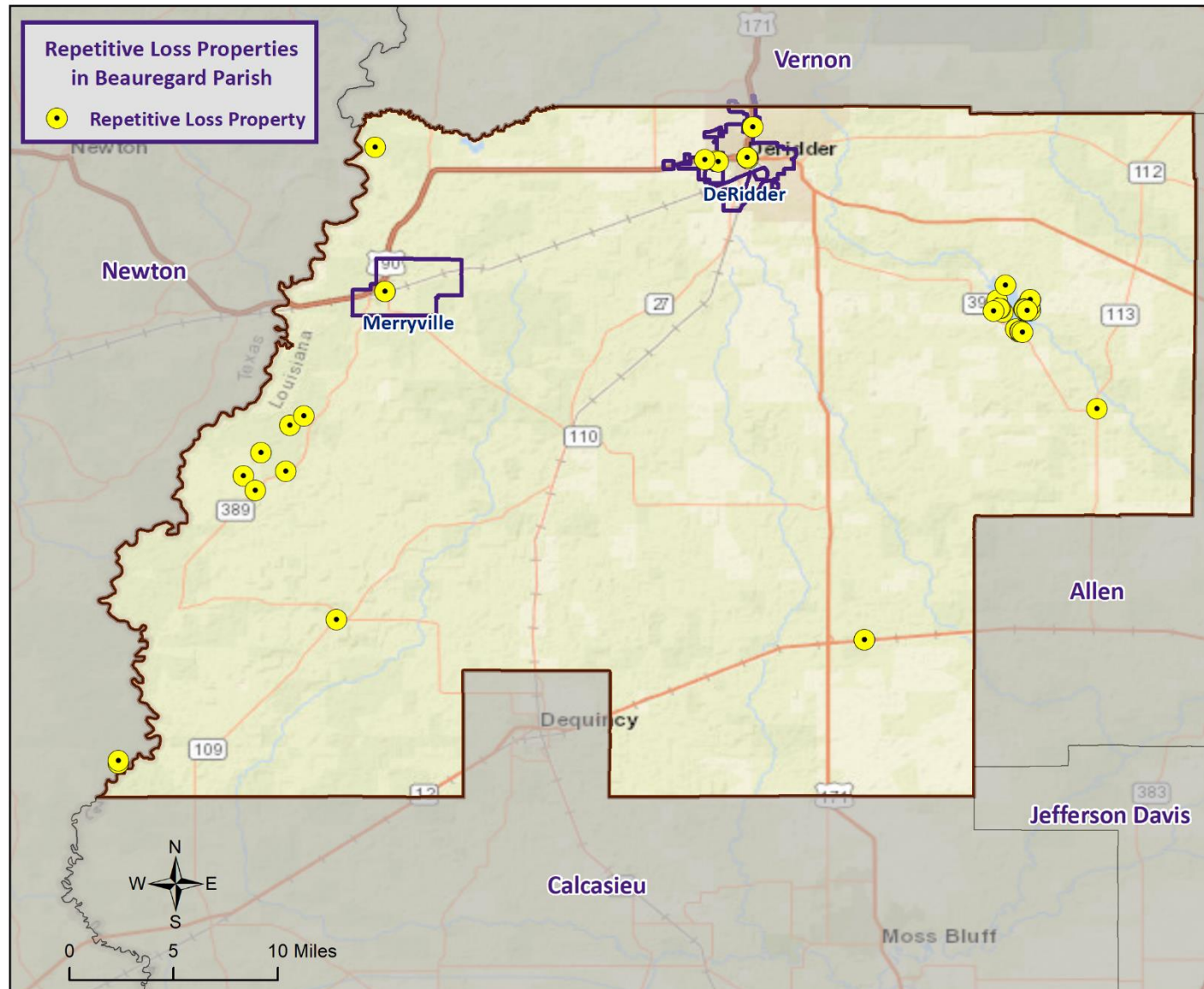


Flooding

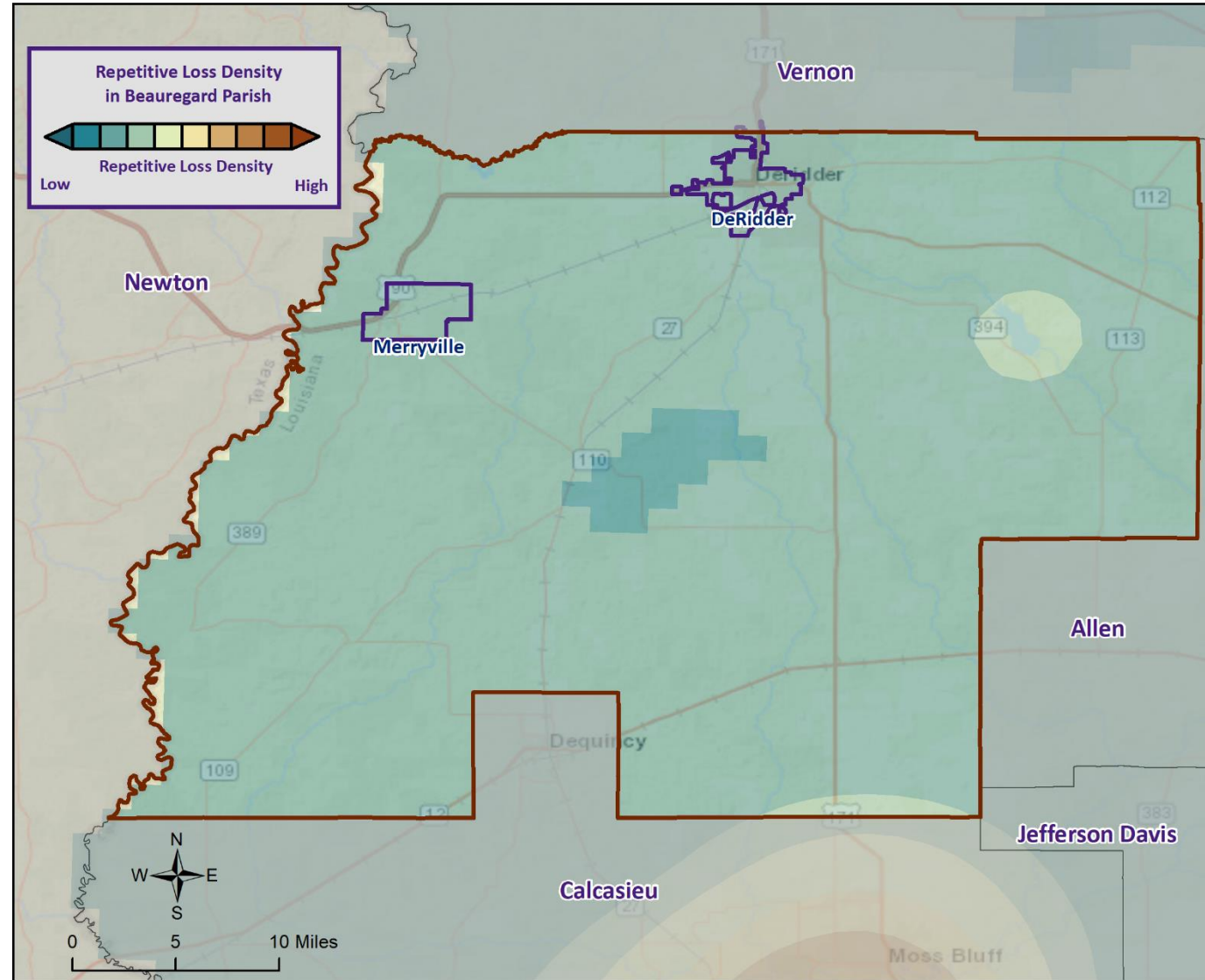
- Some areas flood more often than other properties, even more than those in the mapped 100-year floodplain.
- FEMA defines a “repetitive loss” property as one which has received two flood insurance claim payments for at least \$1,000 over any 10-year period since 1978.
- These properties are important to the National Flood Insurance Program and the Community Rating System because even though they comprise 1% of the policy base, they account for 30% of the country’s flood insurance claim payments.



Repetitive Loss Properties



Repetitive Loss Properties

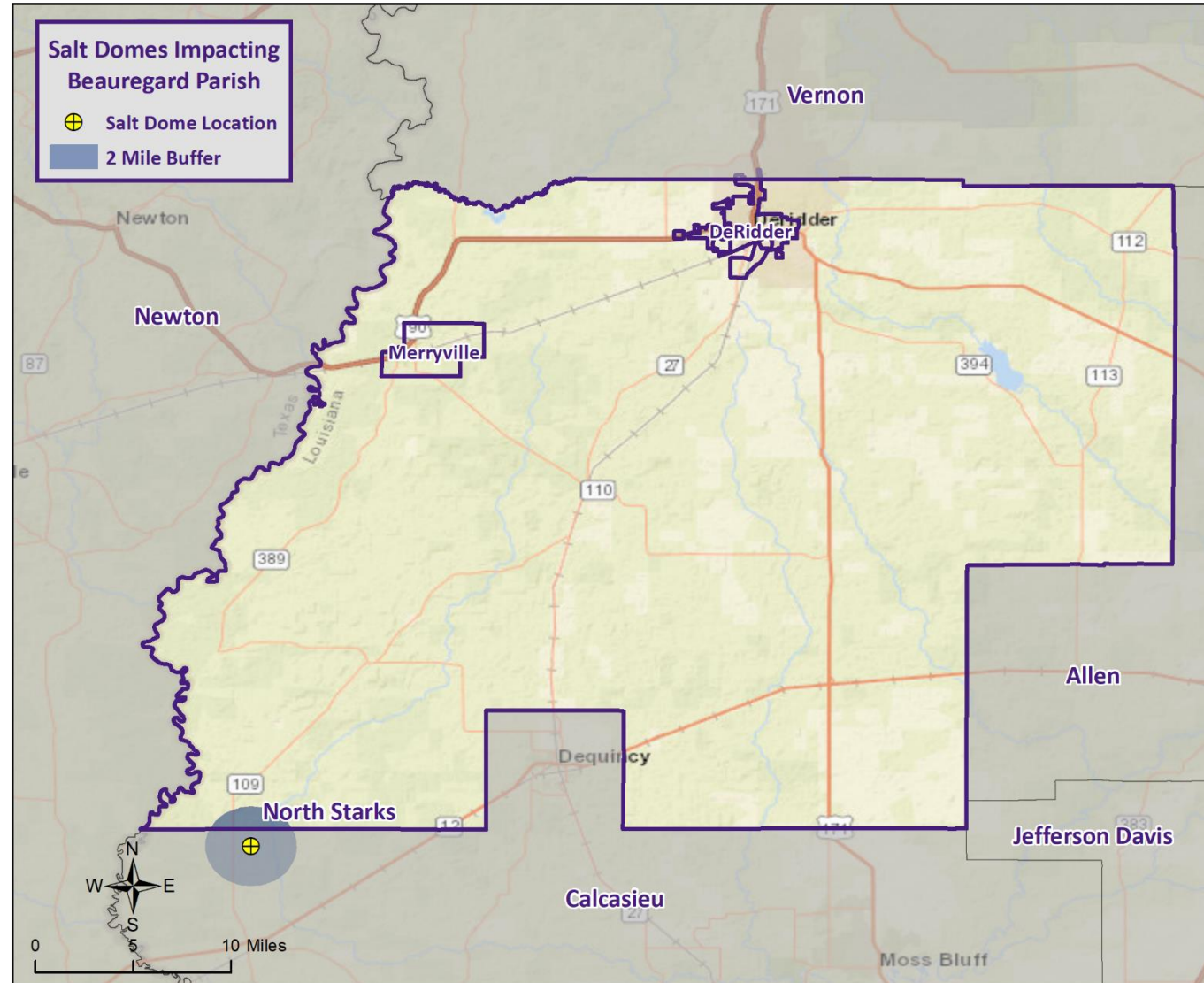


Sinkholes

- A sinkhole is an area of ground that has no natural external surface drainage – when it rains, all of the water stays inside the sinkhole and typically drains into the subsurface.
- Sinkholes form in areas where the rock below the land surface is limestone, carbonate rock, salt beds, or rocks that can naturally be dissolved by groundwater circulating through them.
- As the rock dissolves, spaces and caverns develop underground. Once the spaces underground become too large, there is not enough support for the land above the spaces which causes a sudden collapse on the land surface.



Salt Dome Locations

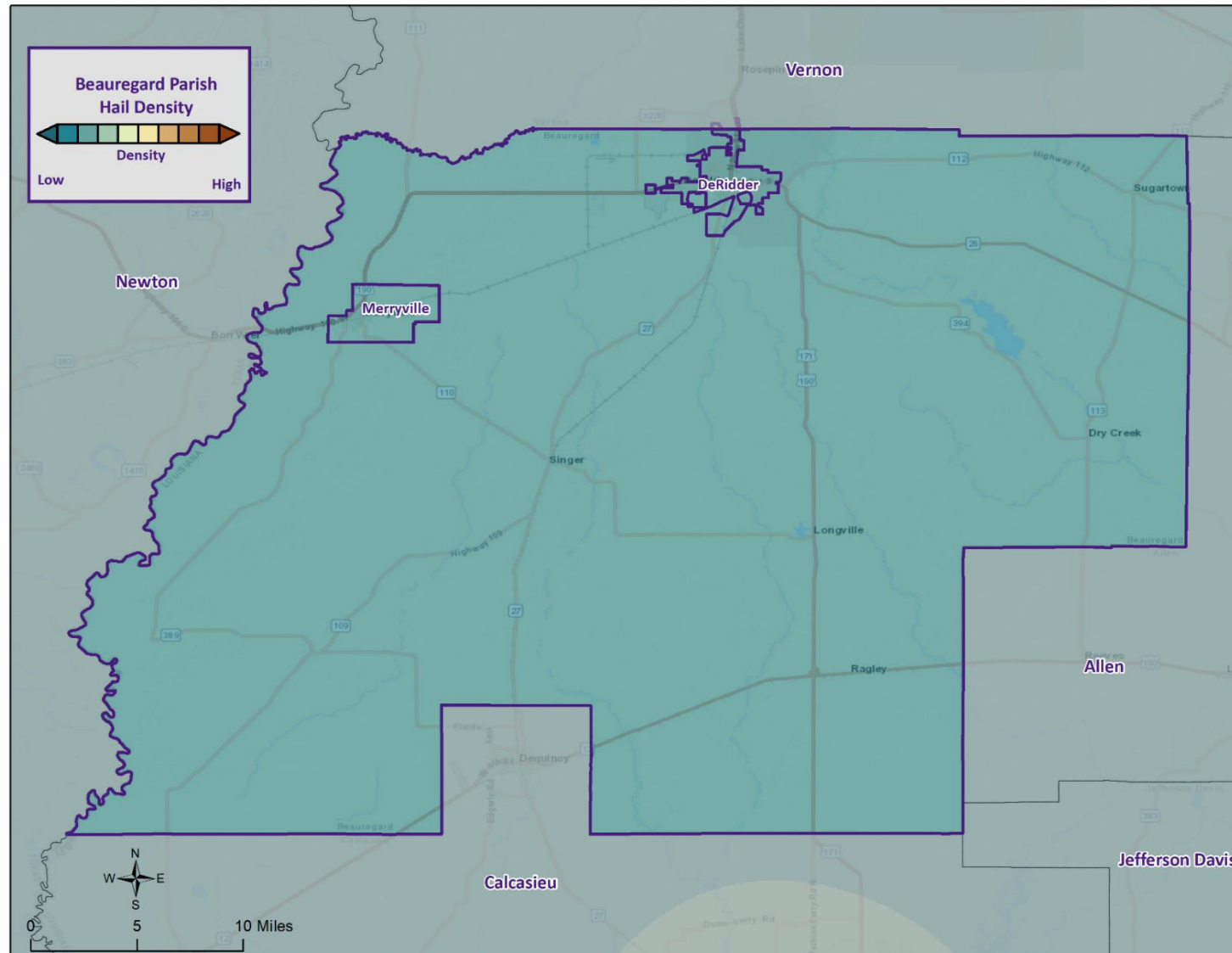


Thunderstorms

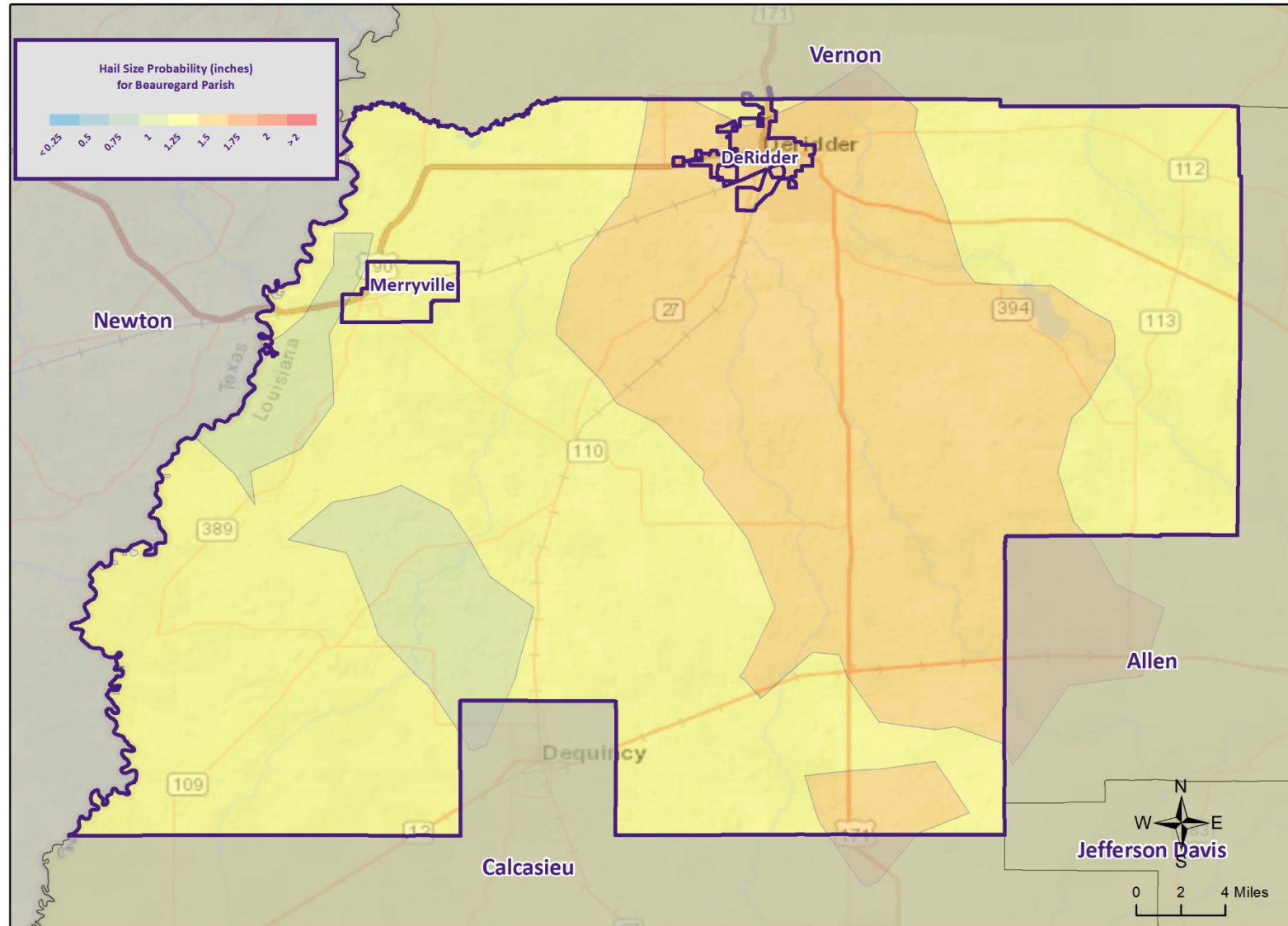
- A **thunderstorm**, also known as an **electrical storm**, a **lightning storm**, or a **thundershower**, is a type of storm characterized by the presence of lightning and its acoustic effect on the Earth's atmosphere known as thunder.
- They are usually accompanied by strong winds, heavy rain, and sometimes snow, sleet, or hail.
- Thunderstorms may line up in a series or rainband, known as a squall line. Strong or severe thunderstorms may rotate, known as supercells. While most thunderstorms move with the mean wind flow through the layer of the troposphere that they occupy, vertical wind shear causes a deviation in their course at a right angle to the wind shear direction.



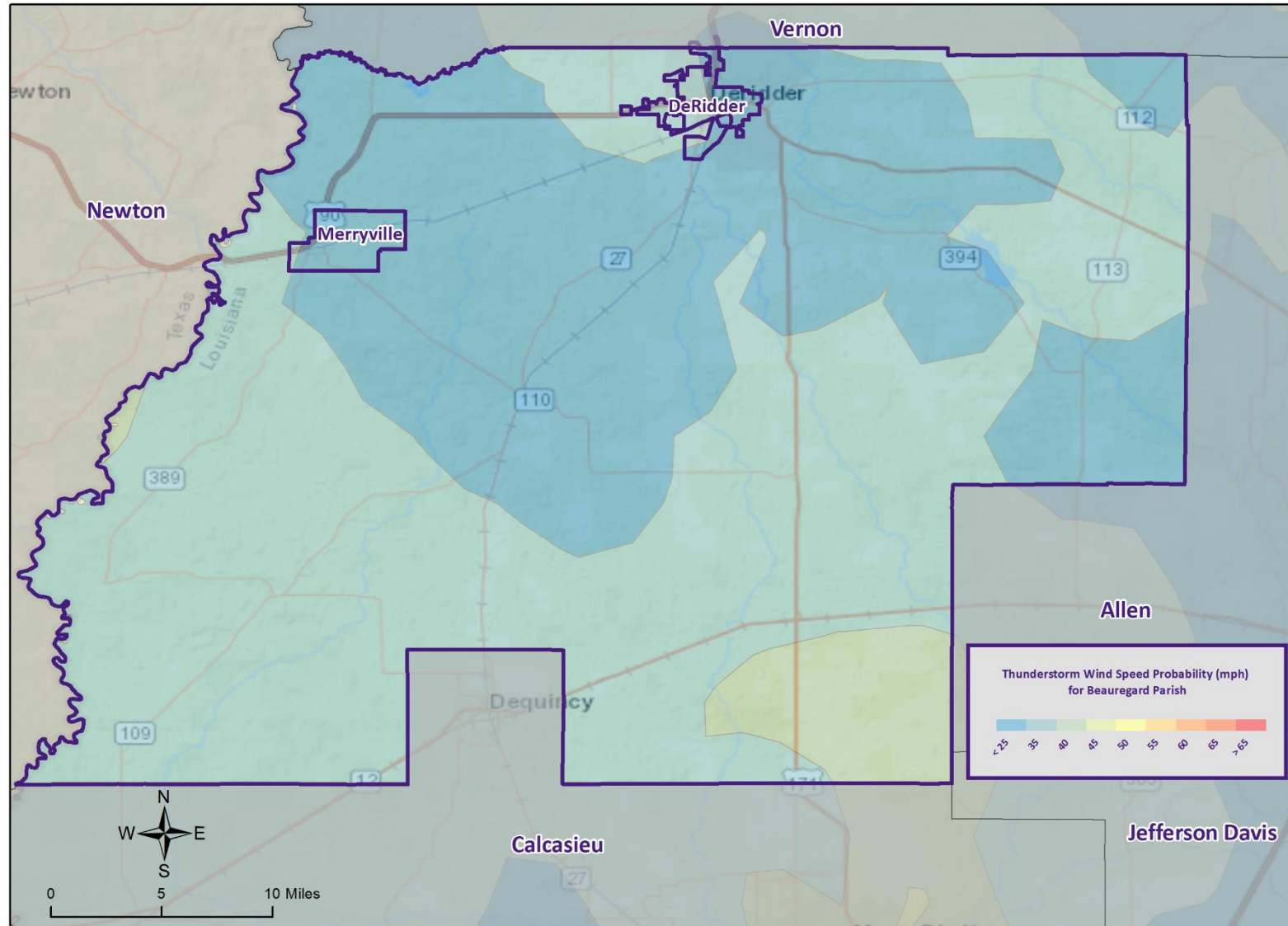
Density of Prior Hailstorms



Hail Size Probability



Wind Speed Probability



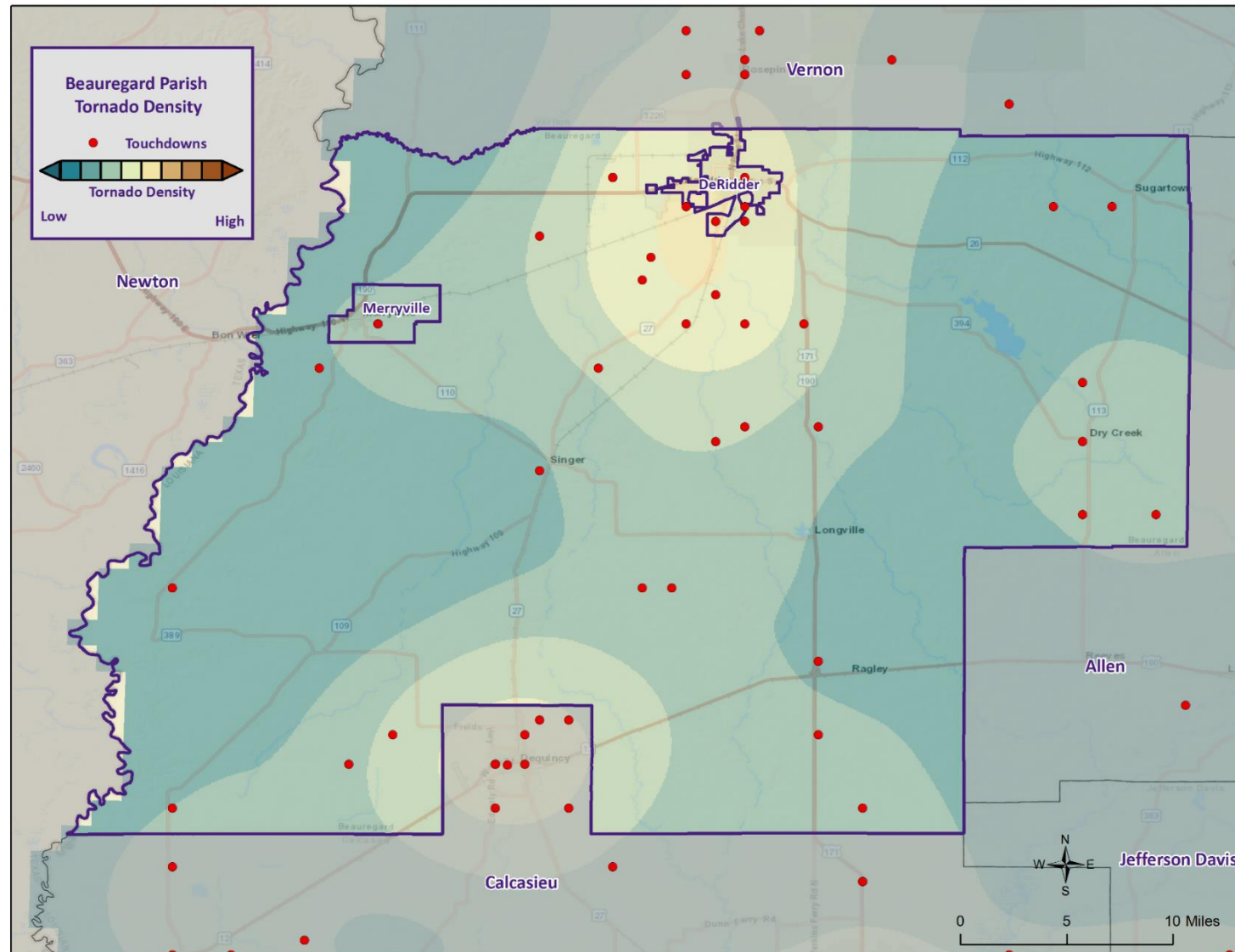
Tornadoes

- Tornadoes (also called twisters and cyclones) are rapidly rotating funnels of wind extending between storm clouds and the ground.
- Tornadoes are the most severe storms for their size, and 70% of the world's reported tornadoes occur within the continental United States.

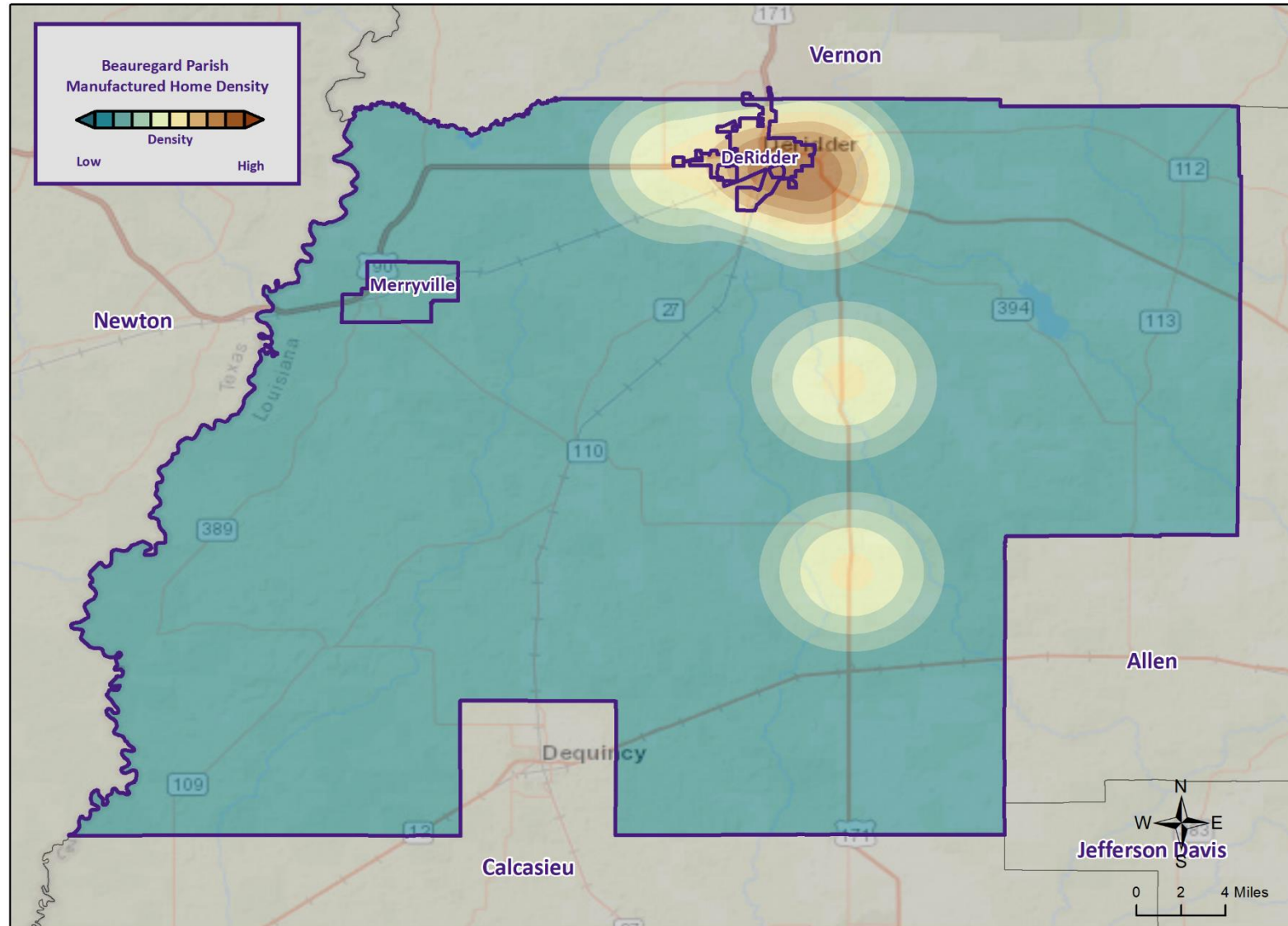
ORIGINAL FUJITA SCALE		ENHANCED FUJITA SCALE	
F5	261-318 mph	EF5	+200 mph
F4	207-260 mph	EF4	166-200 mph
F3	158-206 mph	EF3	136-165 mph
F2	113-157 mph	EF2	111-135 mph
F1	73-112 mph	EF1	86-110 mph
F0	<73 mph	EF0	65-85 mph



Tornadoes



Manufactured Home Density



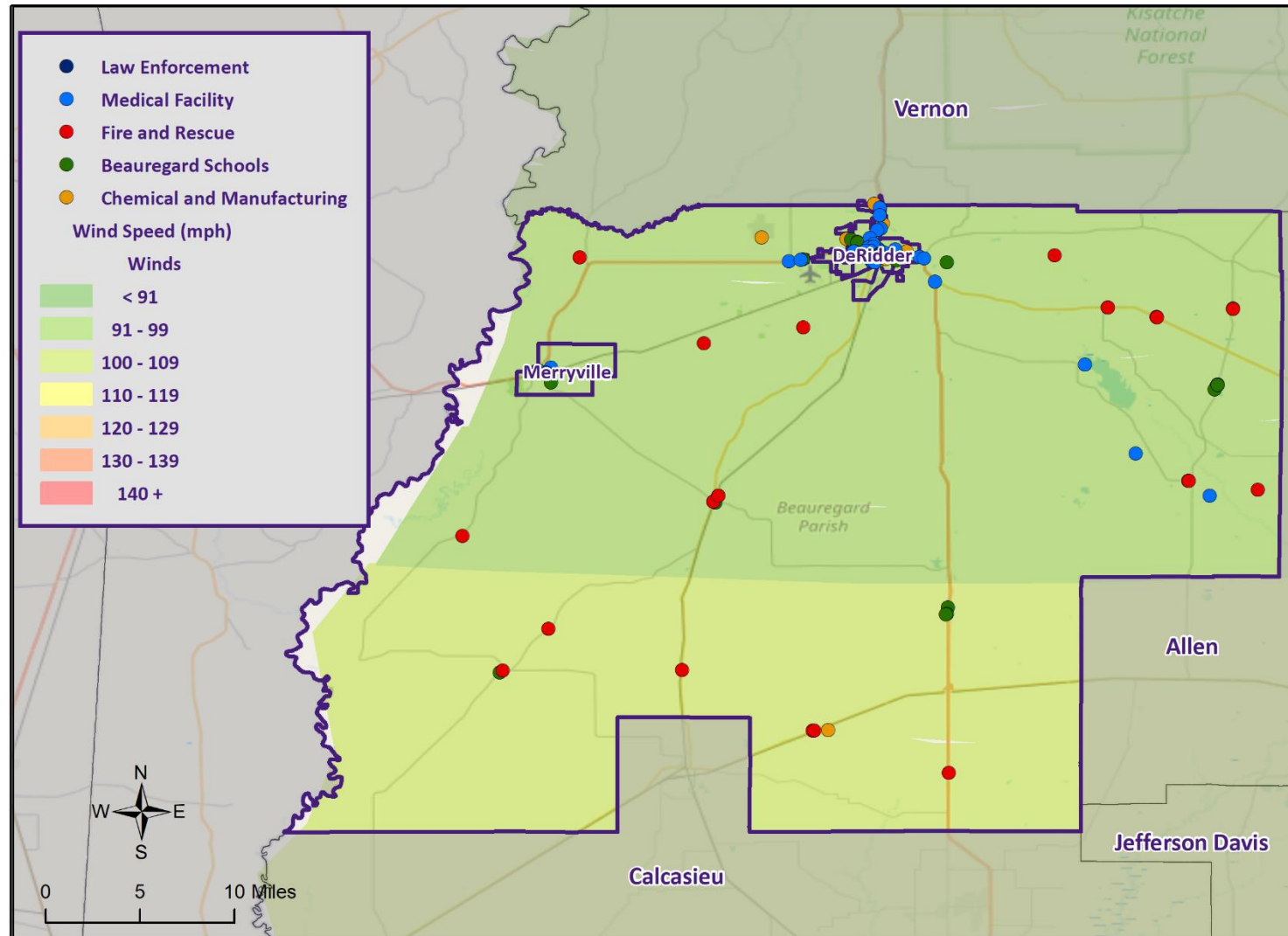
Tropical Cyclones

- Tropical cyclones are defined spinning, low-pressure air masses that draw surface air into their centers and attain strength ranging from weak tropical waves to the most intense hurricanes

Saffir-Simpson Hurricane Wind Scale		
	Sustained Wind Speed	Effects
Category 1	74-95 mph (119-153 km/hr)	Very dangerous winds will produce some damage. Low-lying coastal roads flooded, minor pier damage
Category 2	96-110 mph (154-177 km/hr)	Extremely dangerous winds will cause extensive damage. Major damage to exposed mobile homes, evacuation of some shoreline residents
Category 3	111-130 mph (178-209 km/hr)	Devastating damage will occur. Some structural damage to small buildings; serious flooding at coast and many smaller structures near coast destroyed
Category 4	131-155 mph (210-249 km/hr)	Catastrophic damage will occur. High risk of injury or death to people, livestock, and pets due to flying and falling debris. Long-term water shortages will increase human suffering. Most of the area will be uninhabitable for weeks or months.
Category 5	> 155 mph (249 km/hr)	Catastrophic damage will occur. People, livestock, and pets are at very high risk of injury or death from flying or falling debris. A high percentage of frame homes will be destroyed. Long-term power outages and water shortages will render area uninhabitable for weeks or months.



Wind Speed Impacts on Critical Infrastructure

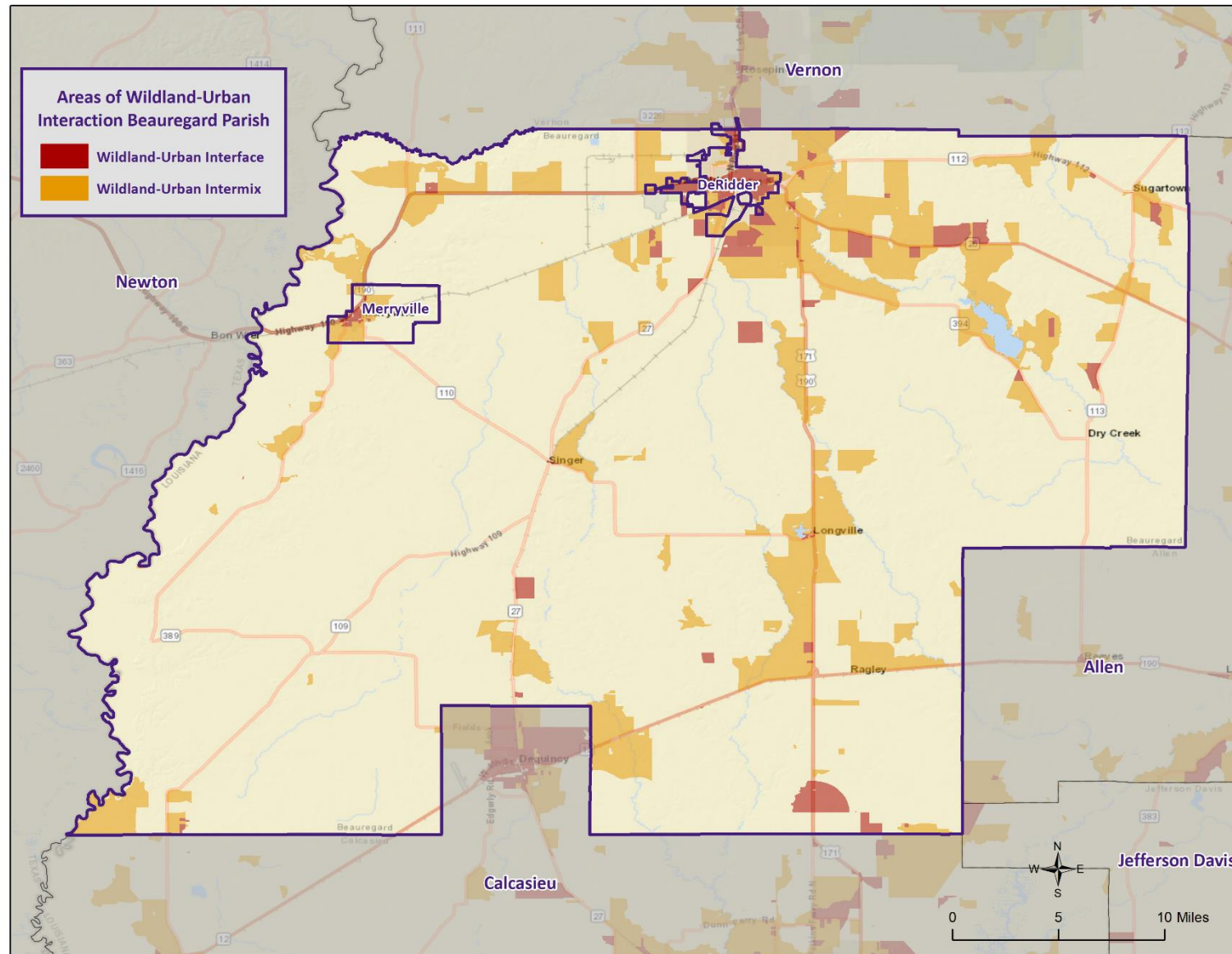


Wildfires

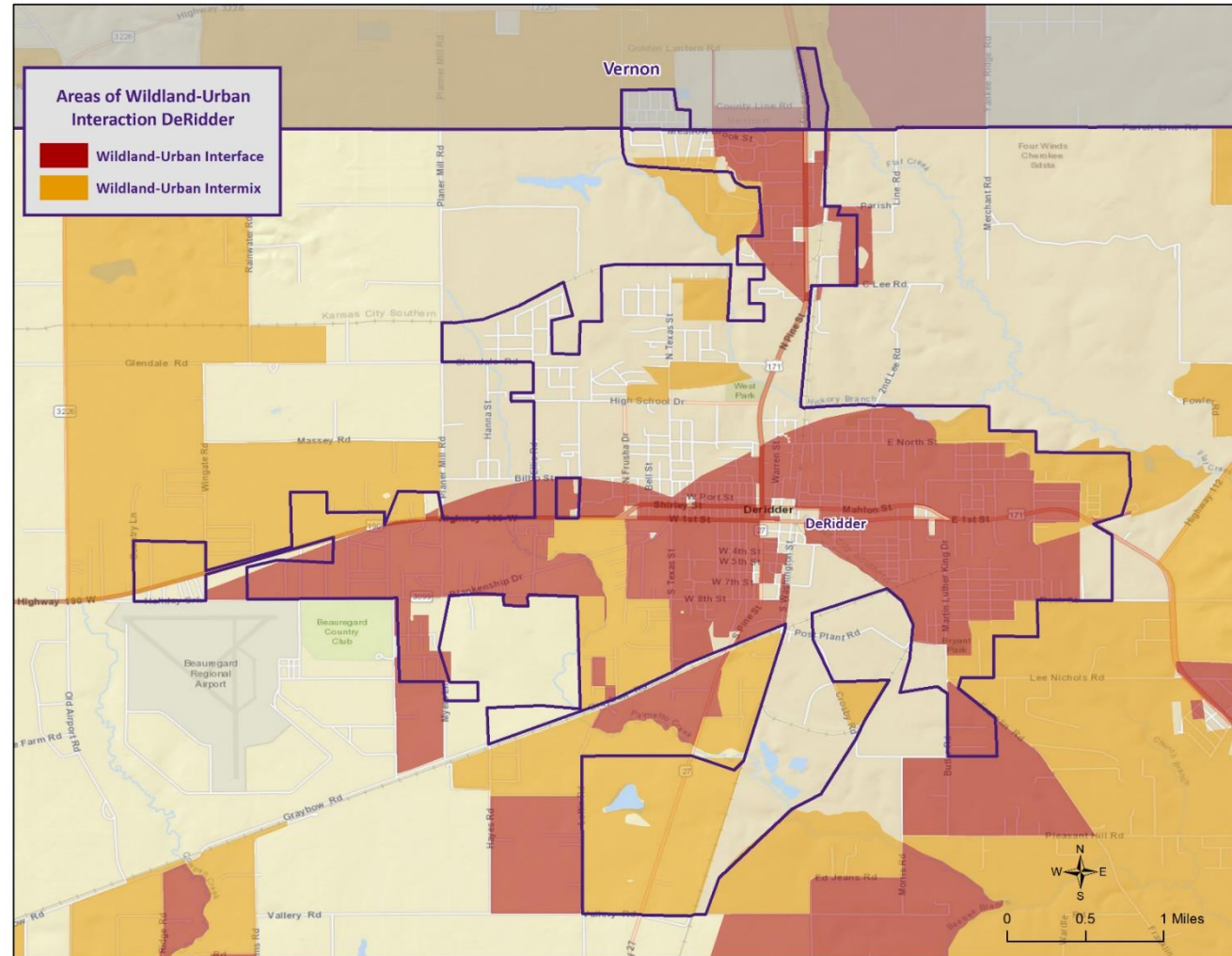
- A wildfire is combustion in a natural setting, marked by flames or intense heat.
- Most frequently, wildfires are ignited by lightning or unintentionally by humans. Fires set purposefully (but lawfully) are referred to as controlled fires or burns
- While loss of timber is a problem, the real hazard is when wildfires threaten developed areas. As more development moves into and next to forested areas, the hazards to people and property increases.



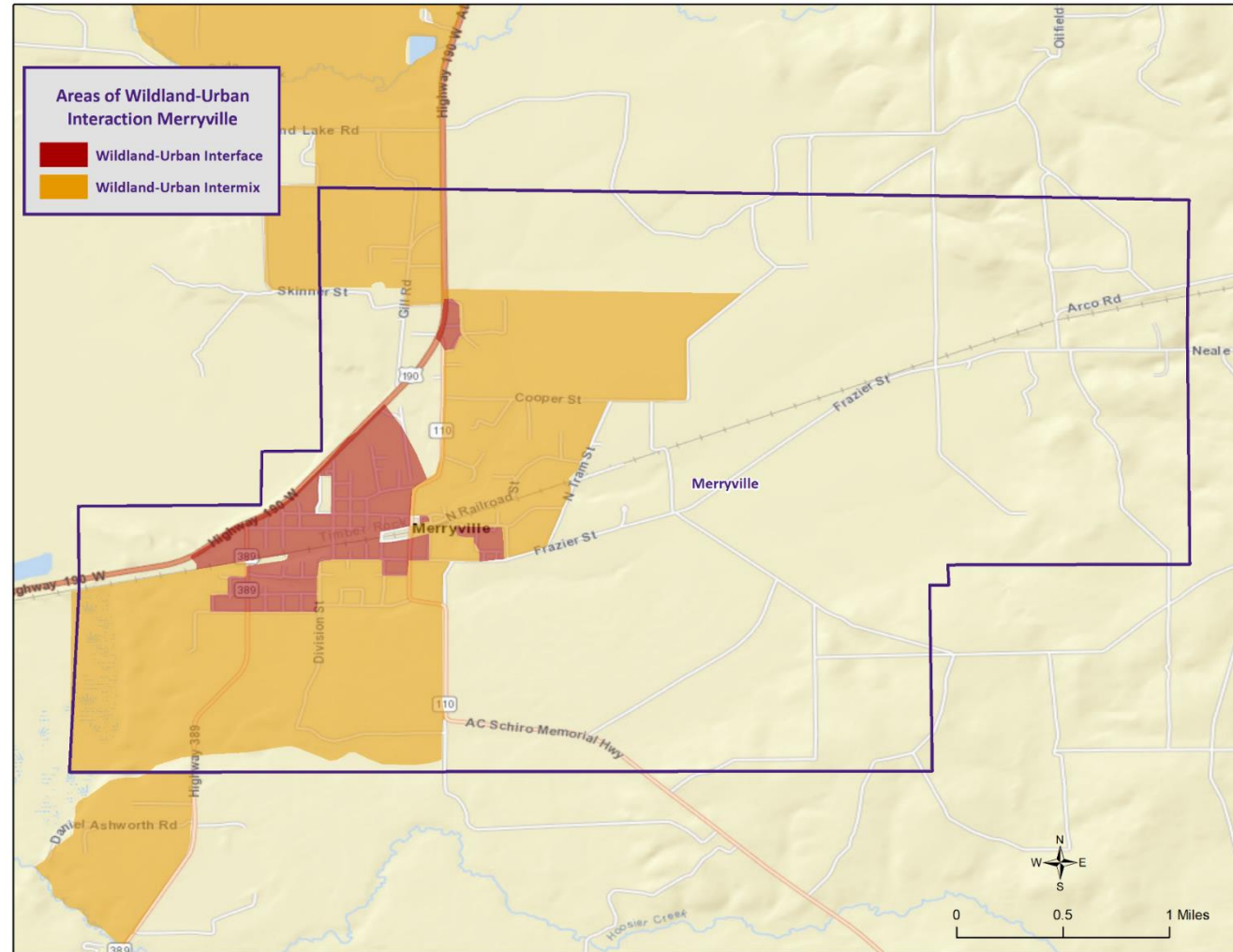
Wildfires



Wildland-Urban Interaction: DeRidder



Wildland-Urban Interaction: Merryville



Parish Mitigation Goals

- **Goal 1:** Reduce the loss of life or property
- **Goal 2:** Protect critical public facilities and thoroughfares
- **Goal 3:** Ensure post-disaster operability of strategic facilities and thoroughfares
- **Goal 4:** Develop incentive and community outreach/education programs that assist homeowners in protecting residential properties
- **Goal 5:** Provide a long-term mitigation solution in locations which experience repetitive hazard damage
- **Goal 6:** Provide a cooperative, inter-jurisdictional/inter-agency solution to a problem
- **Goal 7:** Show development and implementation of comprehensive programs, standards, and regulations that reduce future hazard damage
- **Goal 8:** Avoid inappropriate future development in areas that are vulnerable to hazard damage
- **Goal 9:** Reduce the level of hazard vulnerability in existing structures and developed property
- **Goal 10:** Restore or protect natural resources, recreational areas, open spaces, and other environmental values.

Parish Hazard Mitigation Project Update

- Beauregard Parish OHSEP/Beauregard Parish Government Discussion



Public Outreach Activity

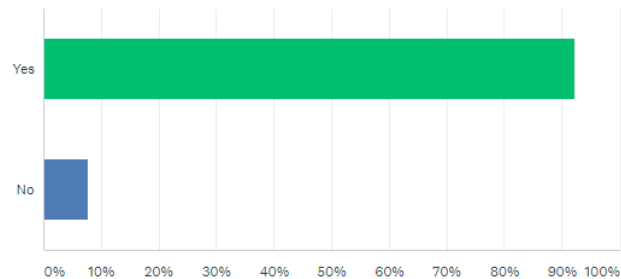
Hazard Mitigation Public Opinion Survey

<https://www.surveymonkey.com/r/BeauregardHM2020>

- 27 responses (as of 2:30 this afternoon), average time spent is 9 minutes.

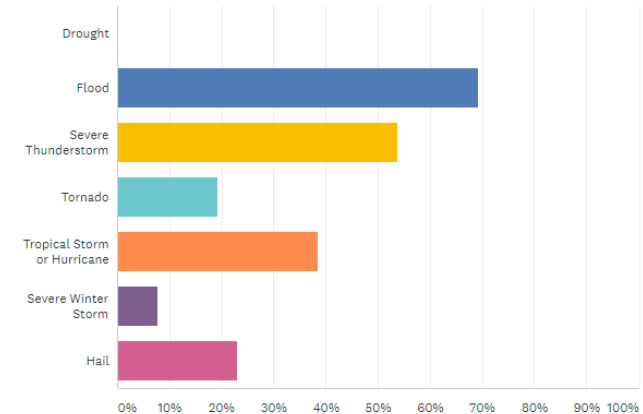
During the past five years in the parish you currently reside in, have you or someone in your household directly experienced a natural disaster such as a severe windstorm, flood, tropical storm or other type of natural disaster?

Answered: 26 Skipped: 1



Which of these natural disasters have you or someone in your household experienced in the past five years? (Check all that apply)

Answered: 26 Skipped: 1



Contact Us

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