2025 Jackson Parish Hazard Mitigation Plan Update

Risk Assessment Meeting

December 22, 2025

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Hazard Identification And Risk Assessment

- Based on Currently Profiled Prevalent Natural Hazards
- Identify Any New Hazards
- Previous Occurrences
- Impact from Events
- Probability of Future Events
- Critical Facilities
- Future Development Trends
- Future Hazard Impacts
- Zoning and Land Use

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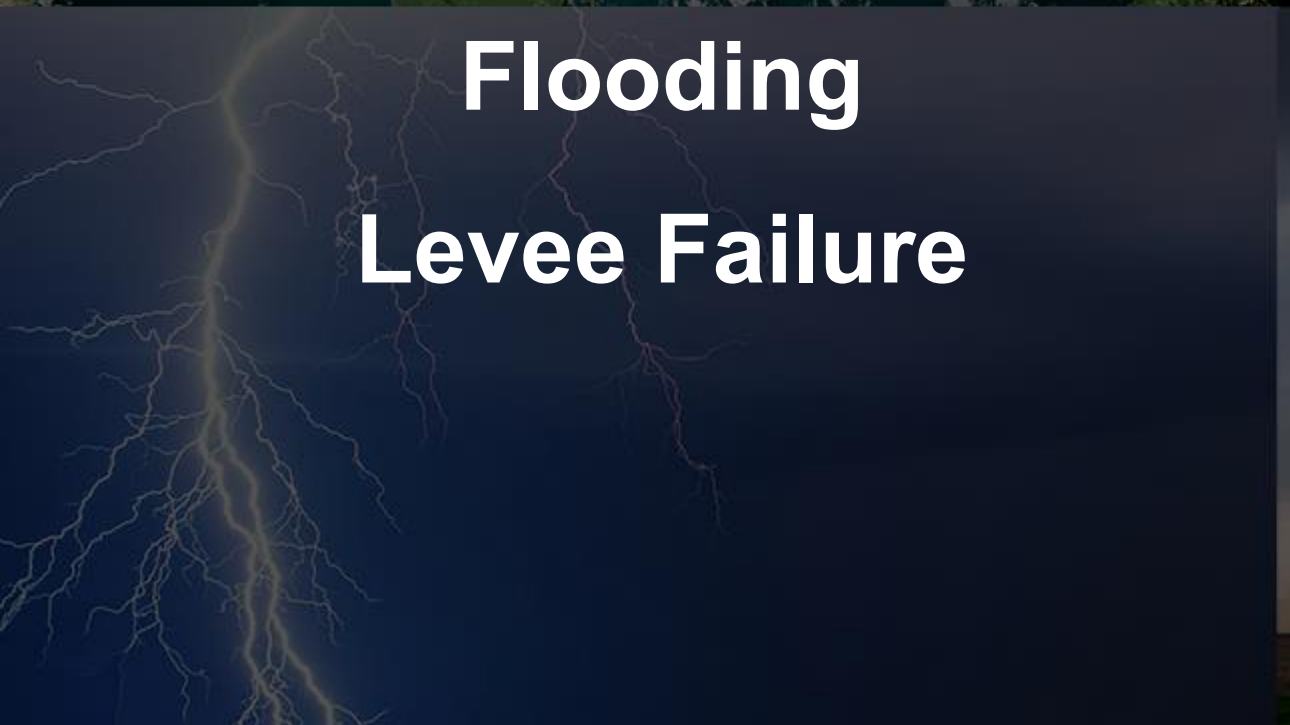
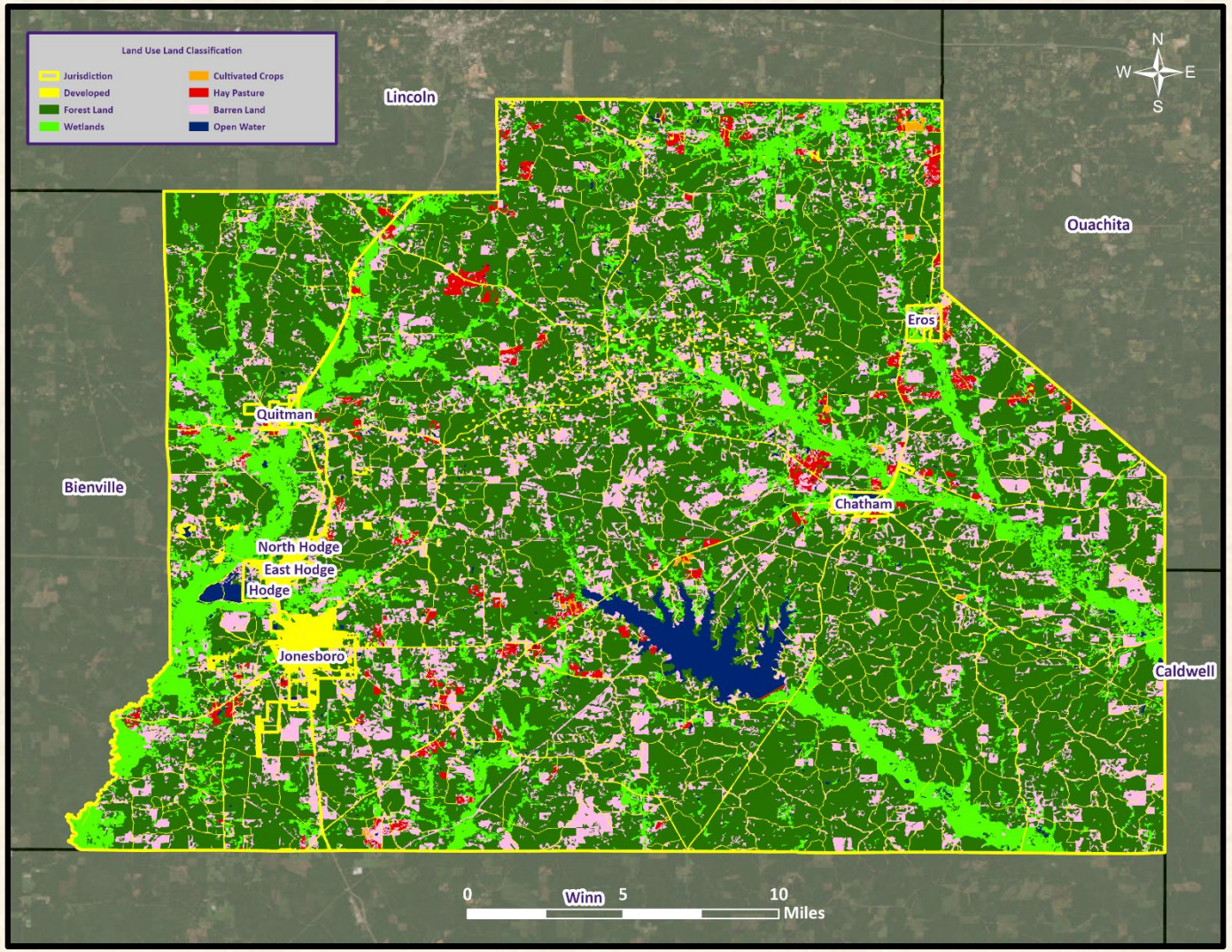
Hazard Identification And Risk Assessment



Jackson Parish Land Use



Source: USGS Land Use Map

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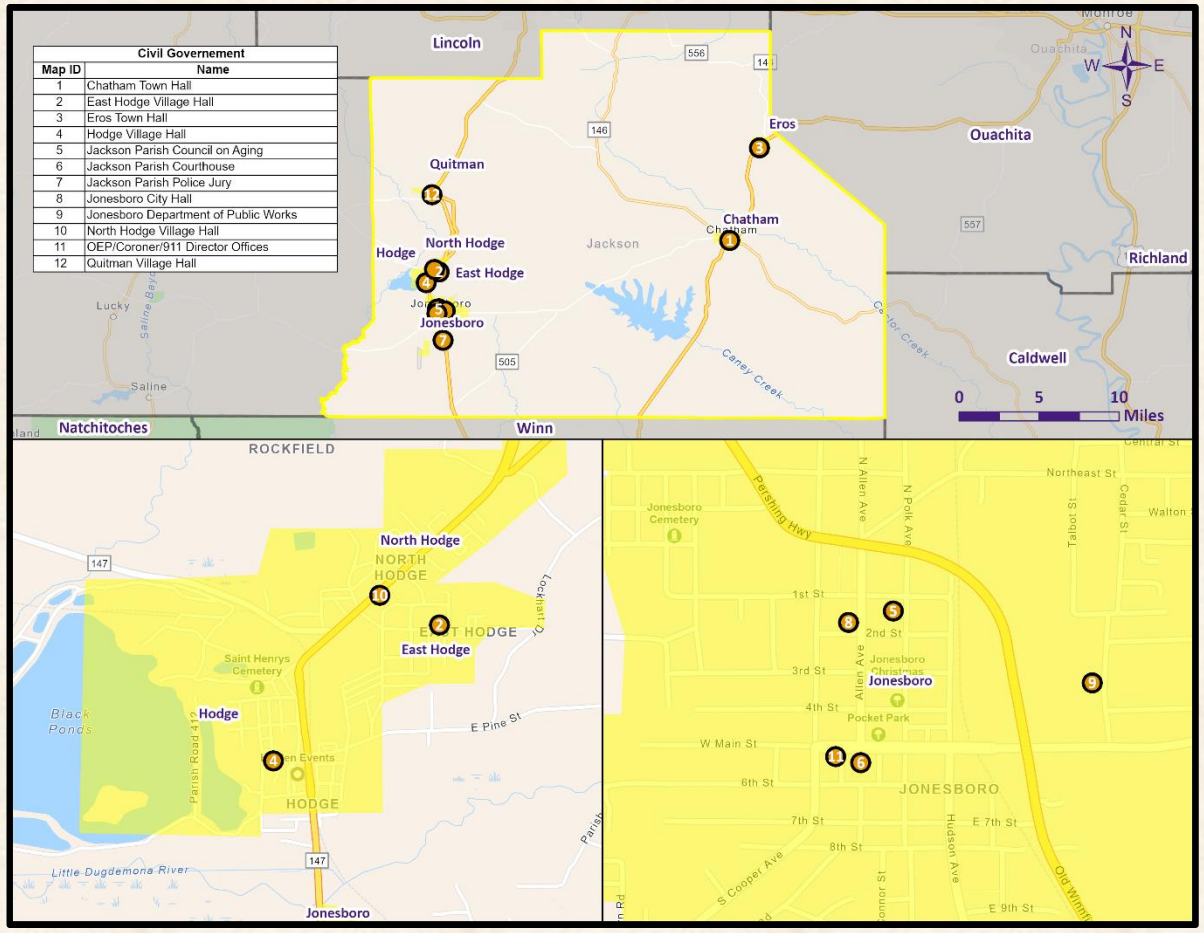
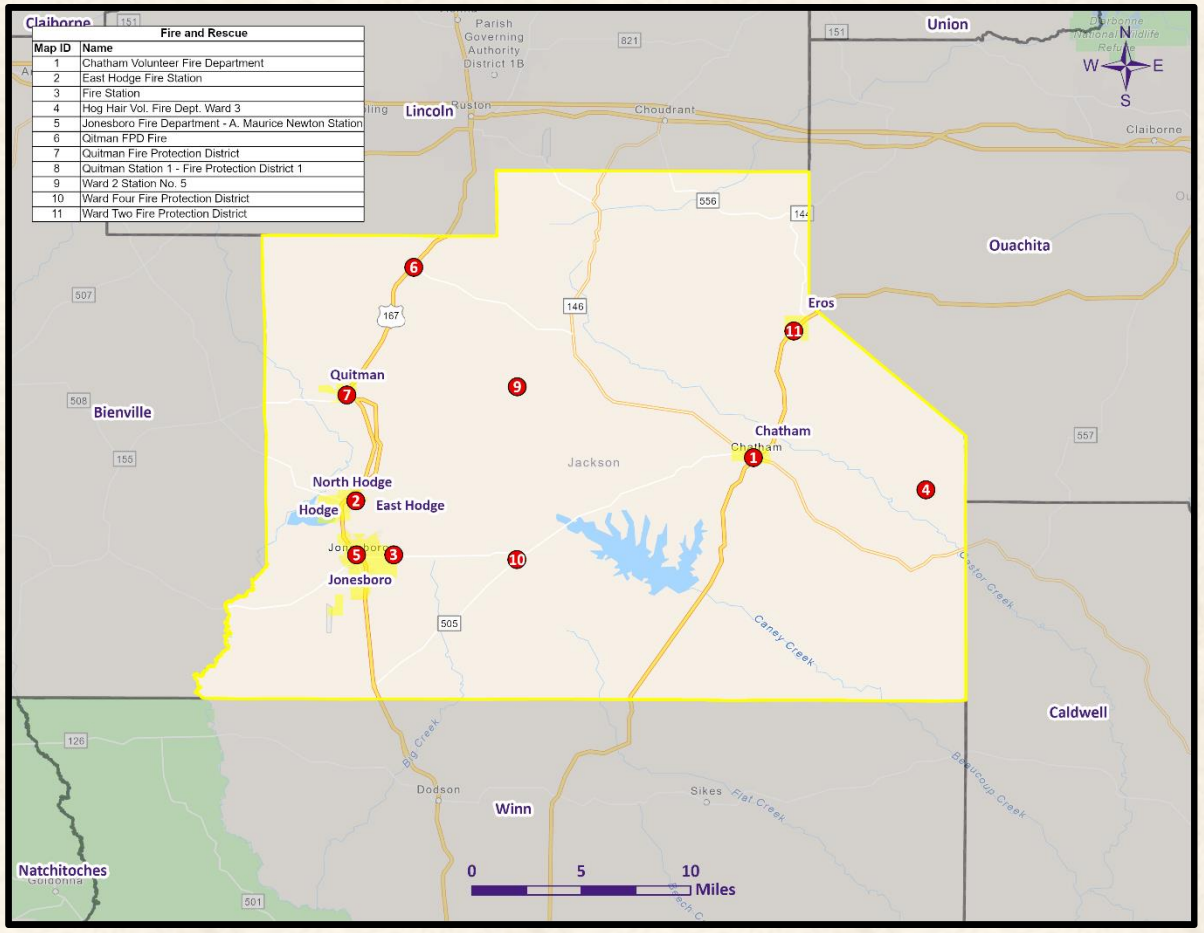
Jackson Parish Critical Facilities

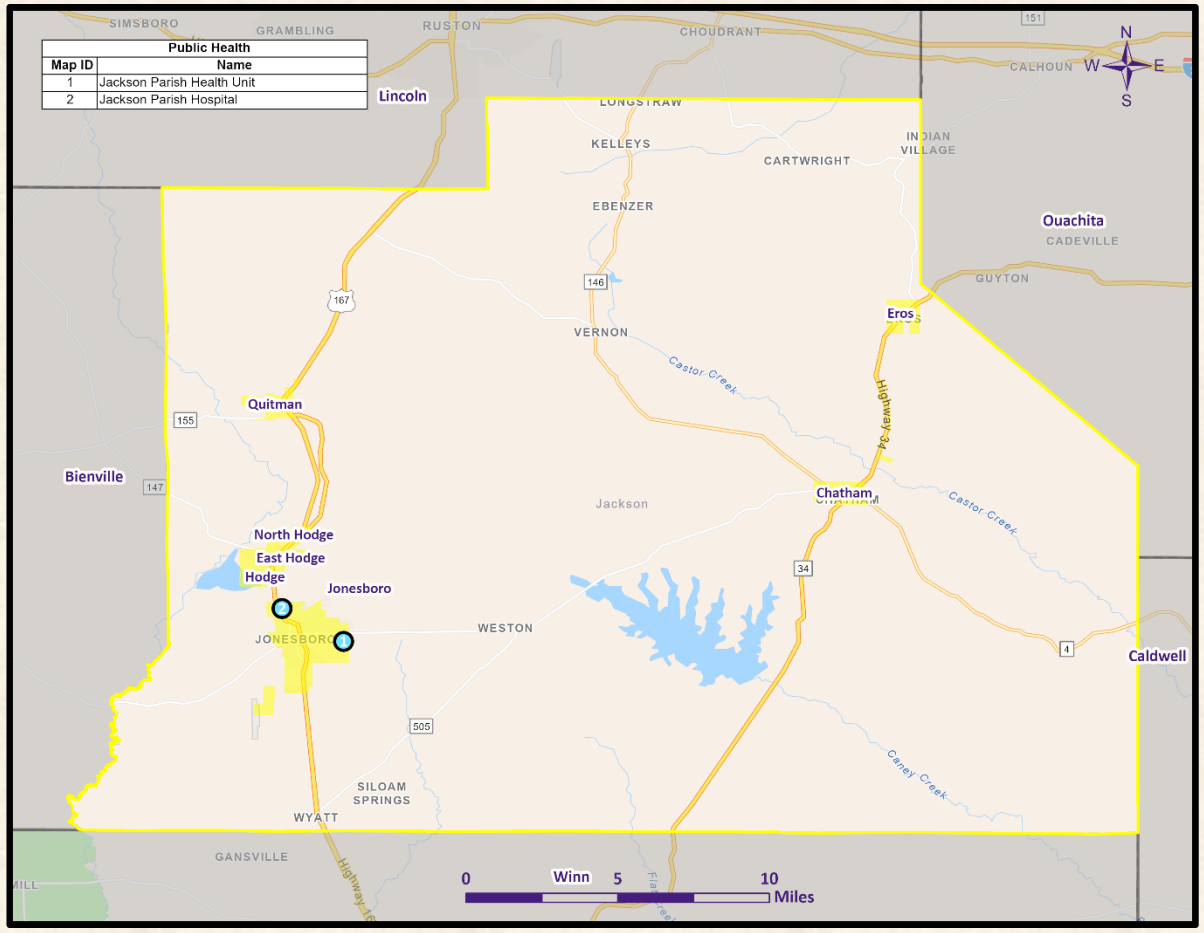




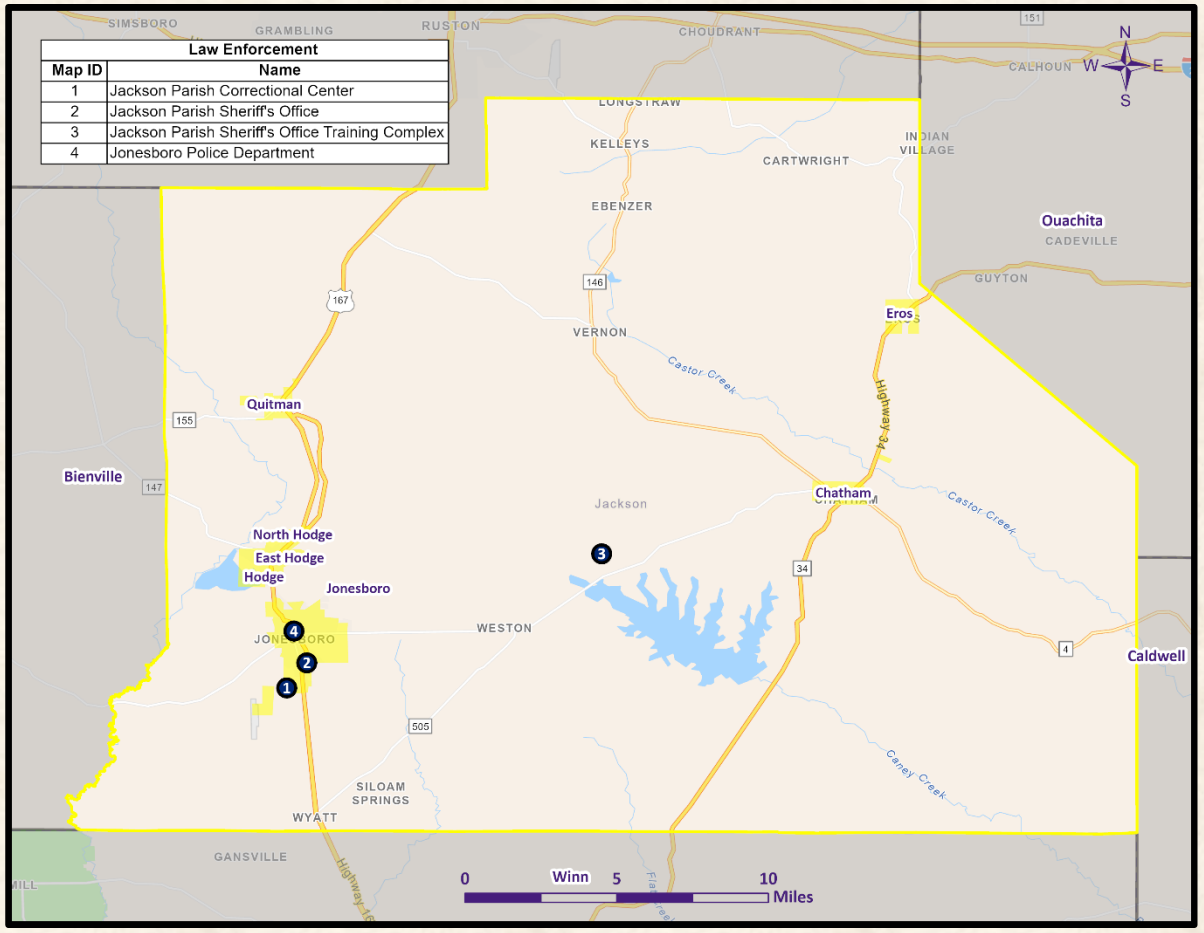
Civil Government

Fire & SAR

Jackson Parish Critical Facilities

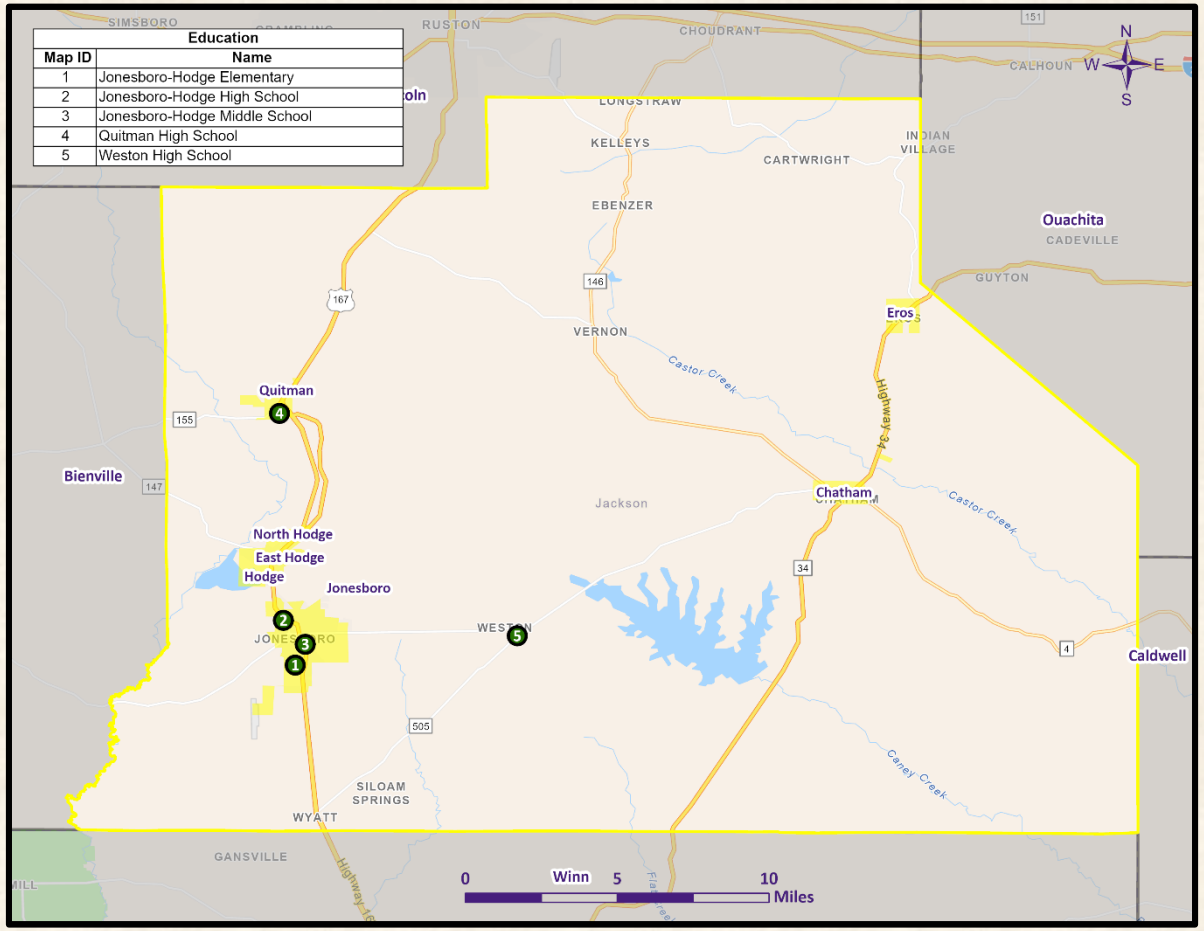


Public Health



Law Enforcement

Jackson Parish Critical Facilities



Public Education

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Dam Failure

- A dam is a barrier across flowing water that obstructs, redirects, or slows the flow, often creating a reservoir or lake.

- There are five main causes of dam failure:
  - ✓Overtopping
  - ✓Foundation Defects
  - ✓Cracking
  - ✓Inadequate maintenance and upkeep
  - ✓Piping

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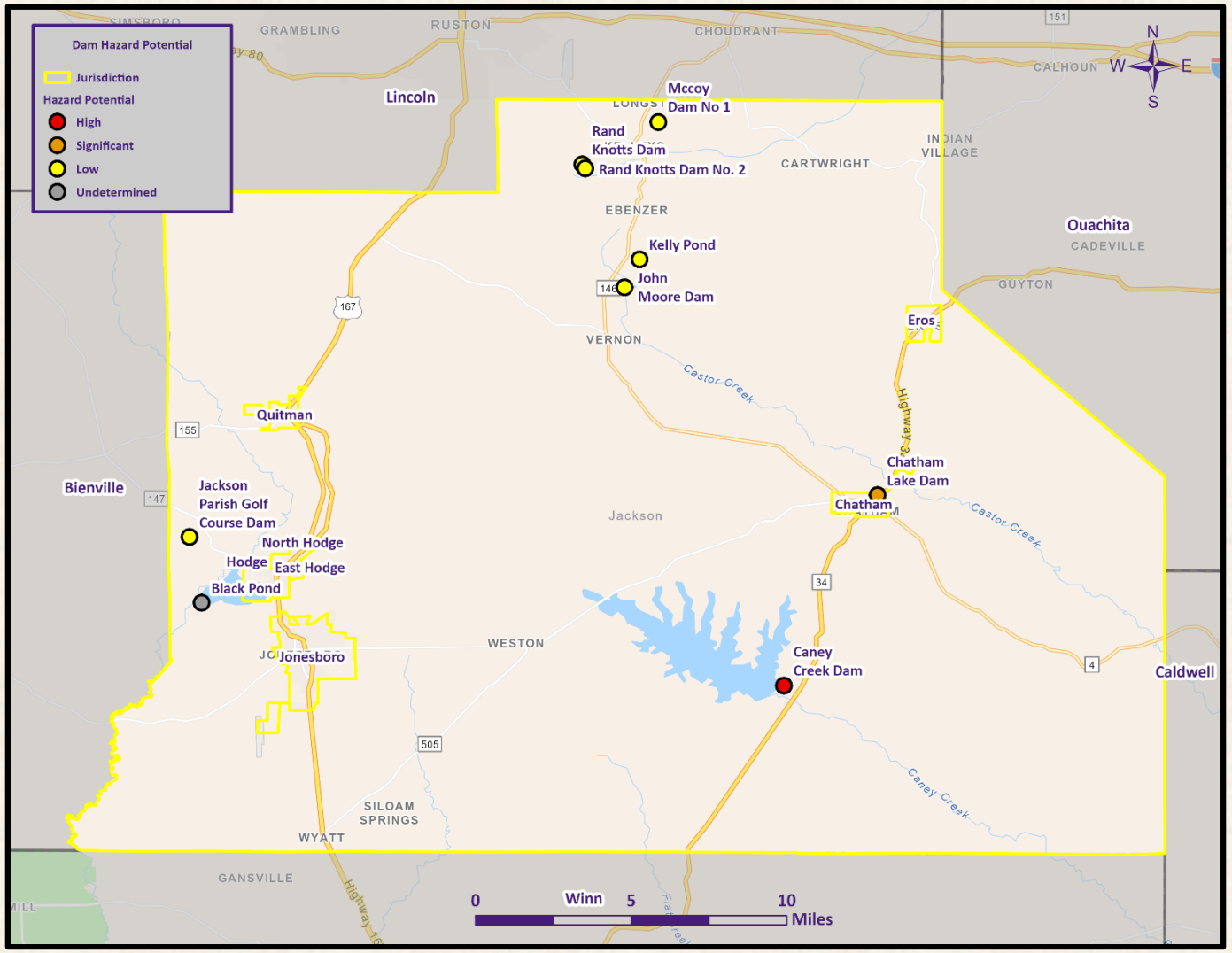
Dam Locations in Jackson Parish



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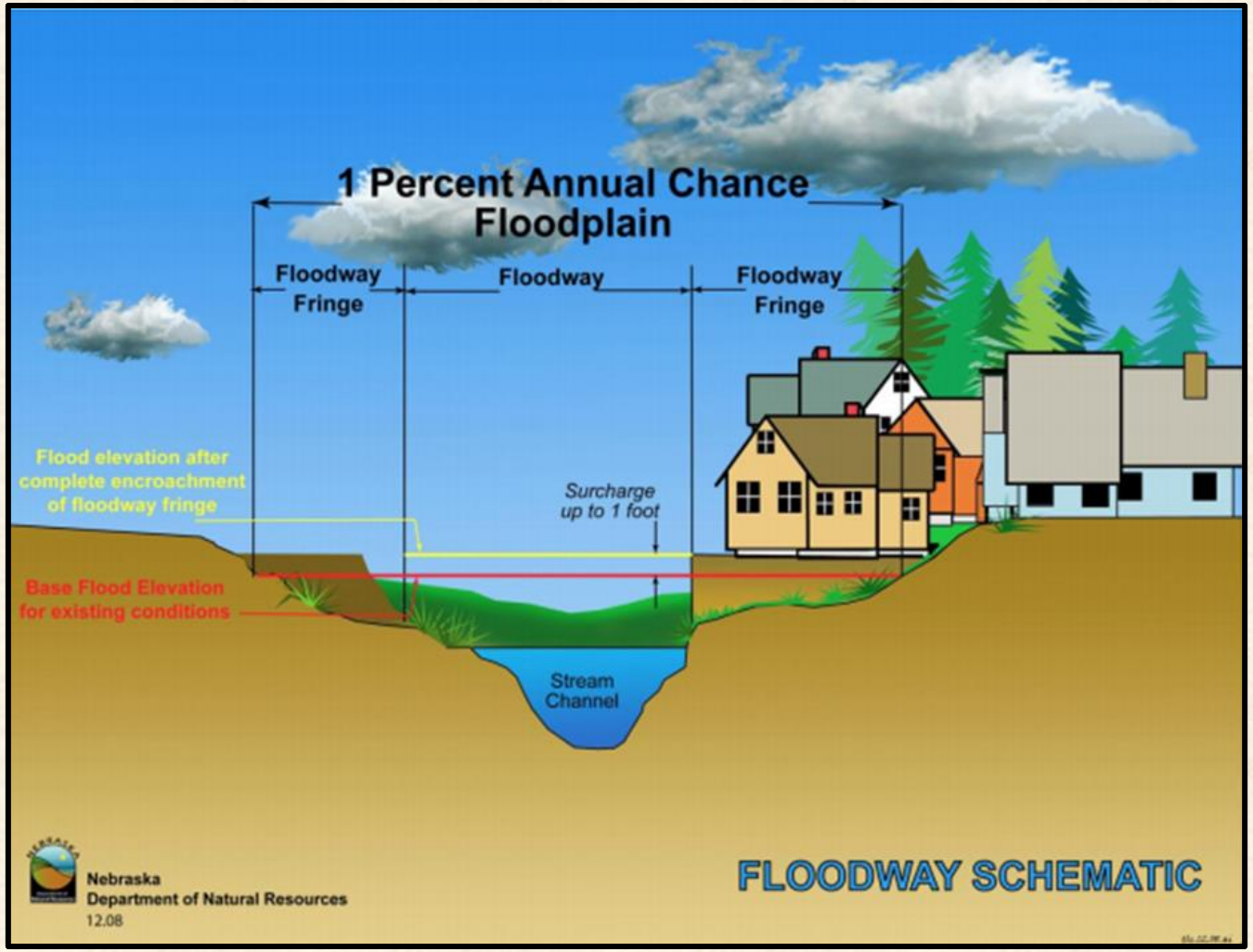
Flooding

- 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.”

Floodway Diagram



Source: Nebraska Department of Natural Resources

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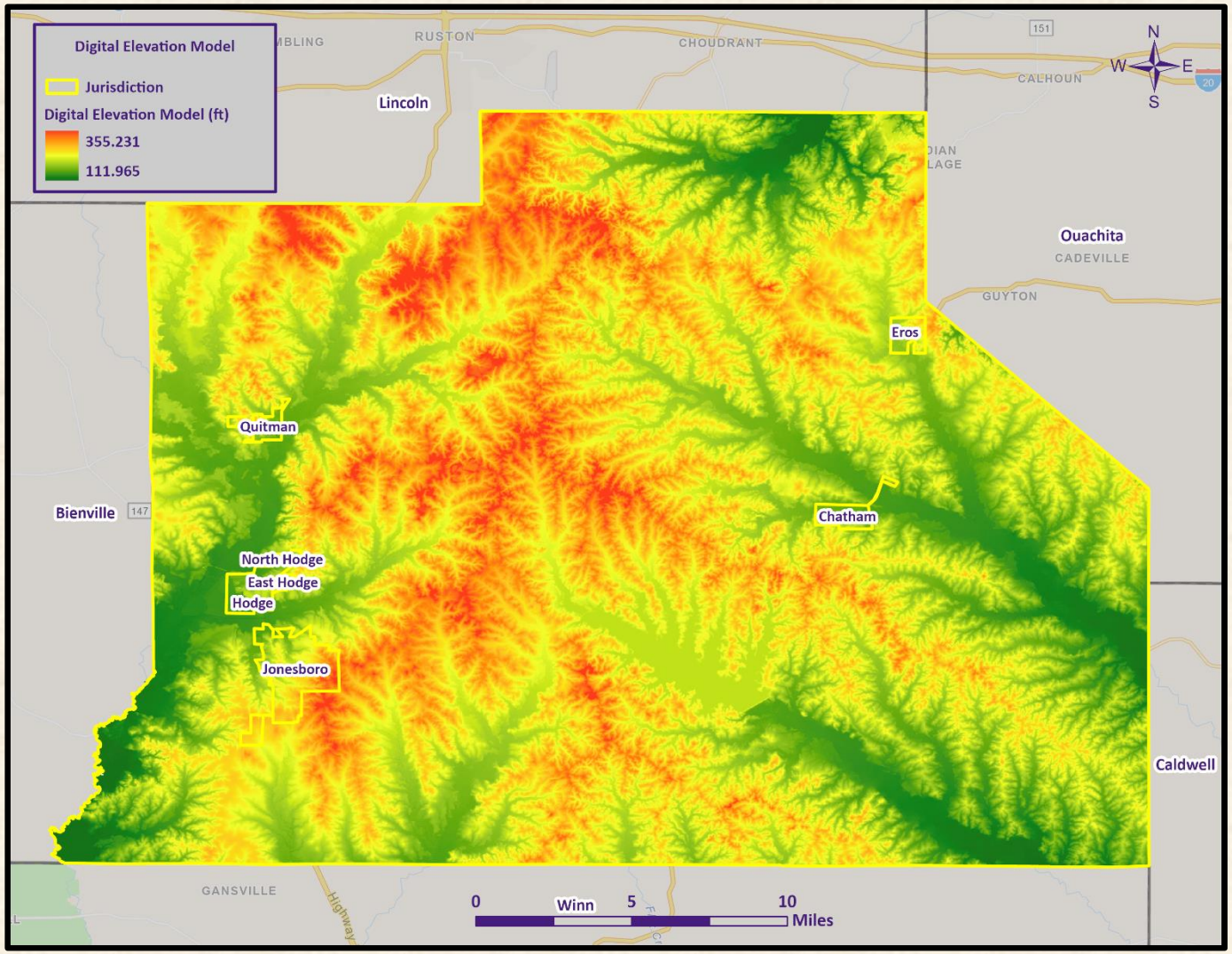
Digital Elevation Model



Source: USGS

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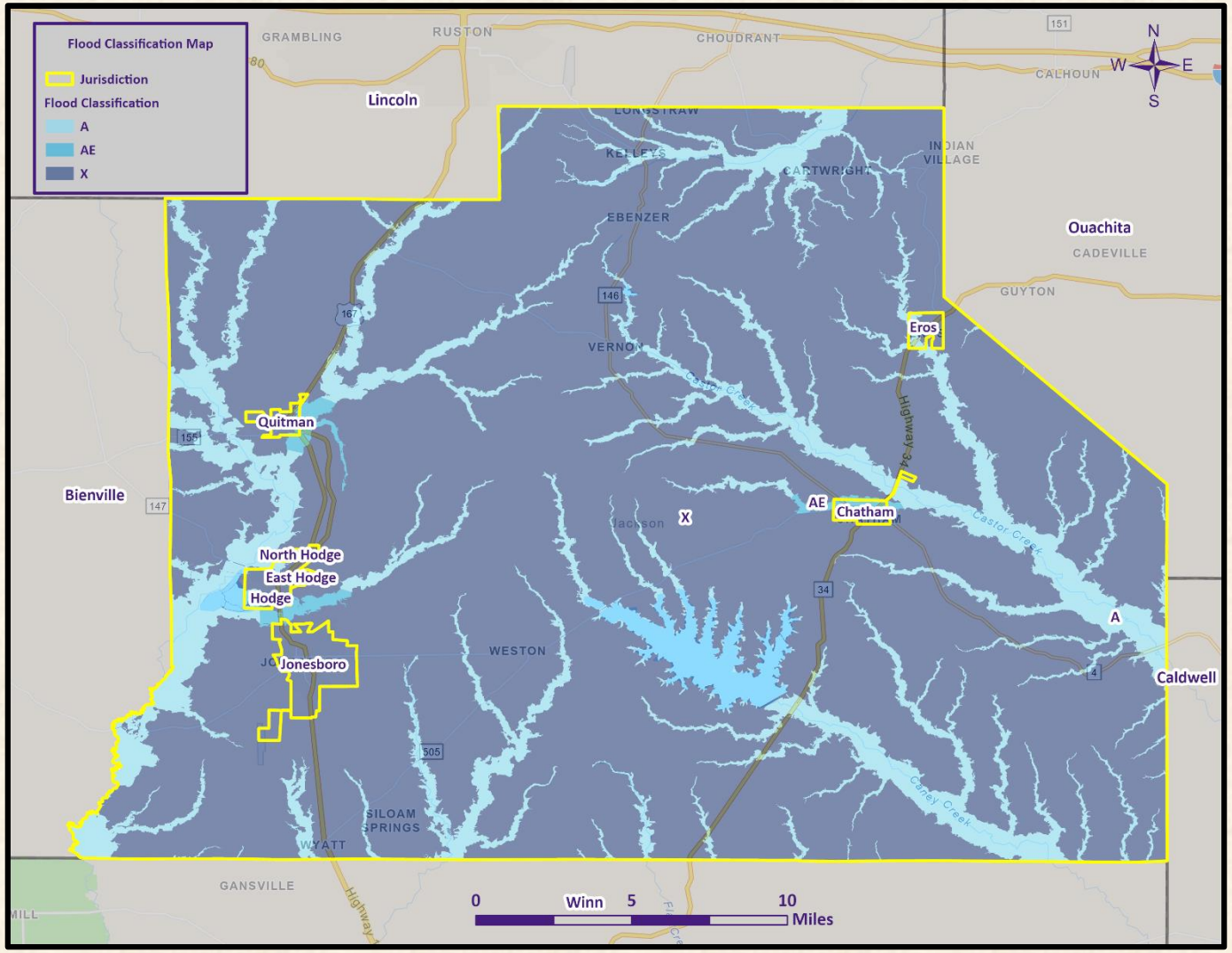
Jackson Parish Flood Map



Source: FEMA Maps Service Center

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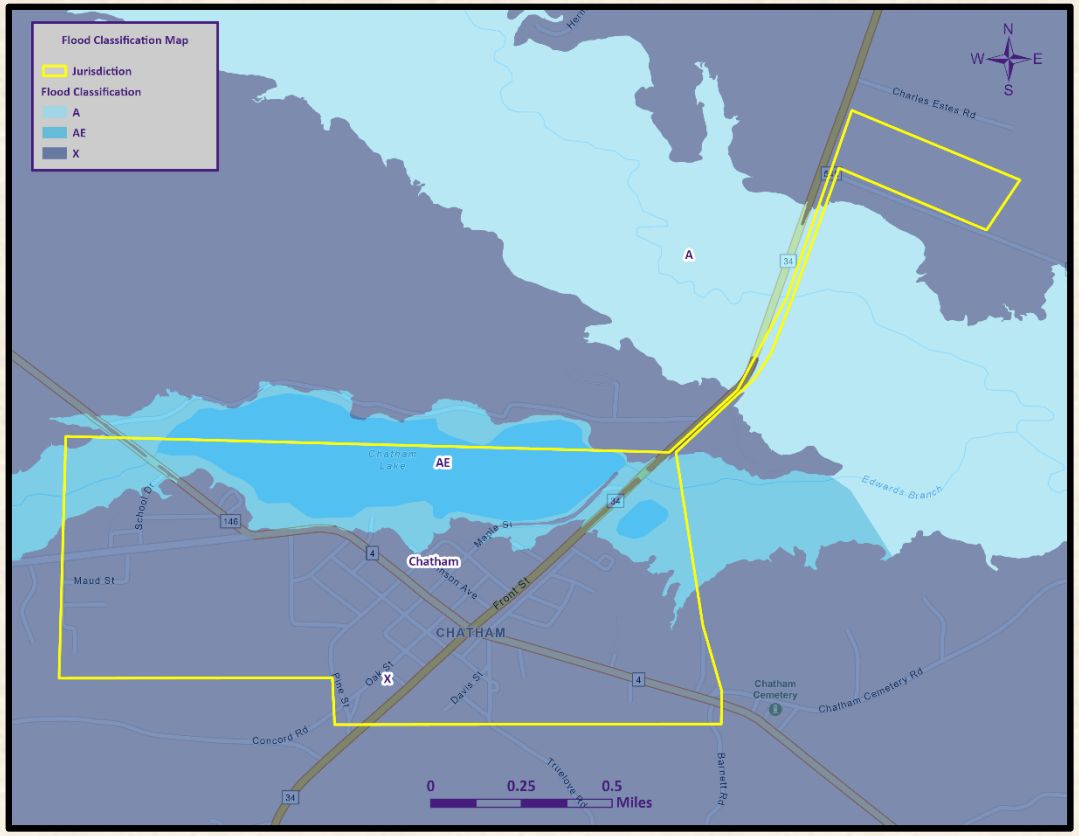
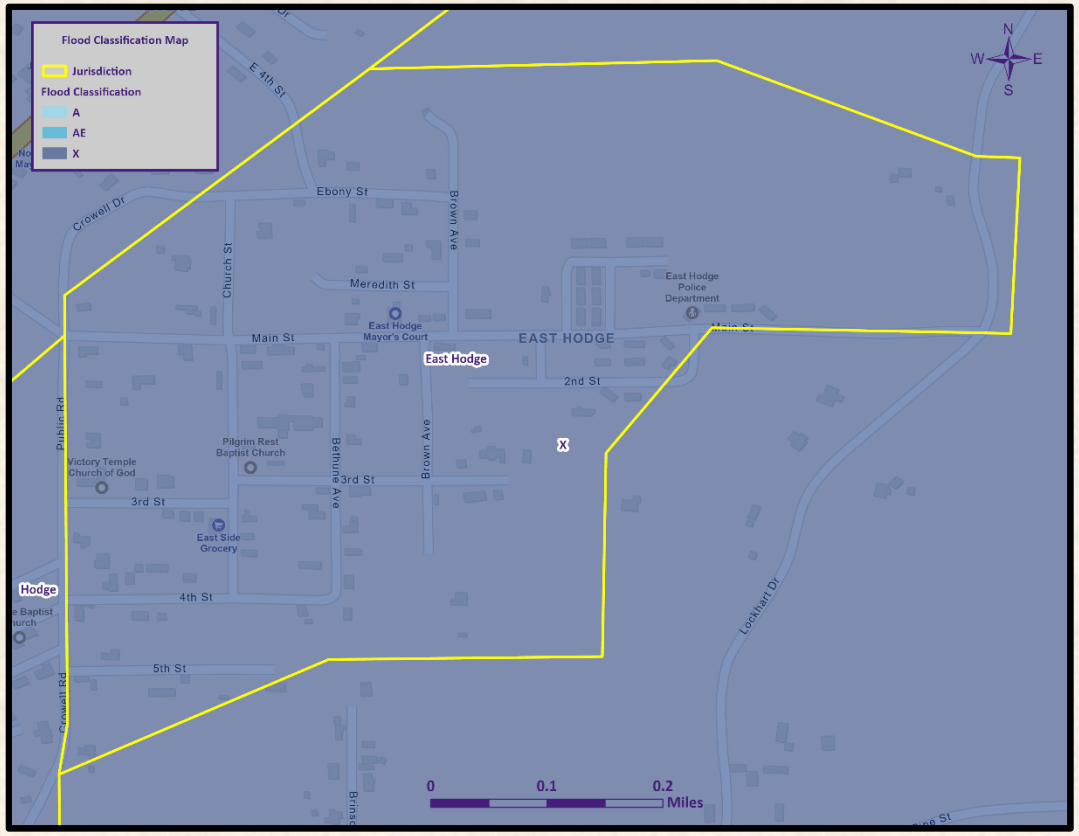
Jackson Parish Flood Maps

Source: FEMA Maps Service Center



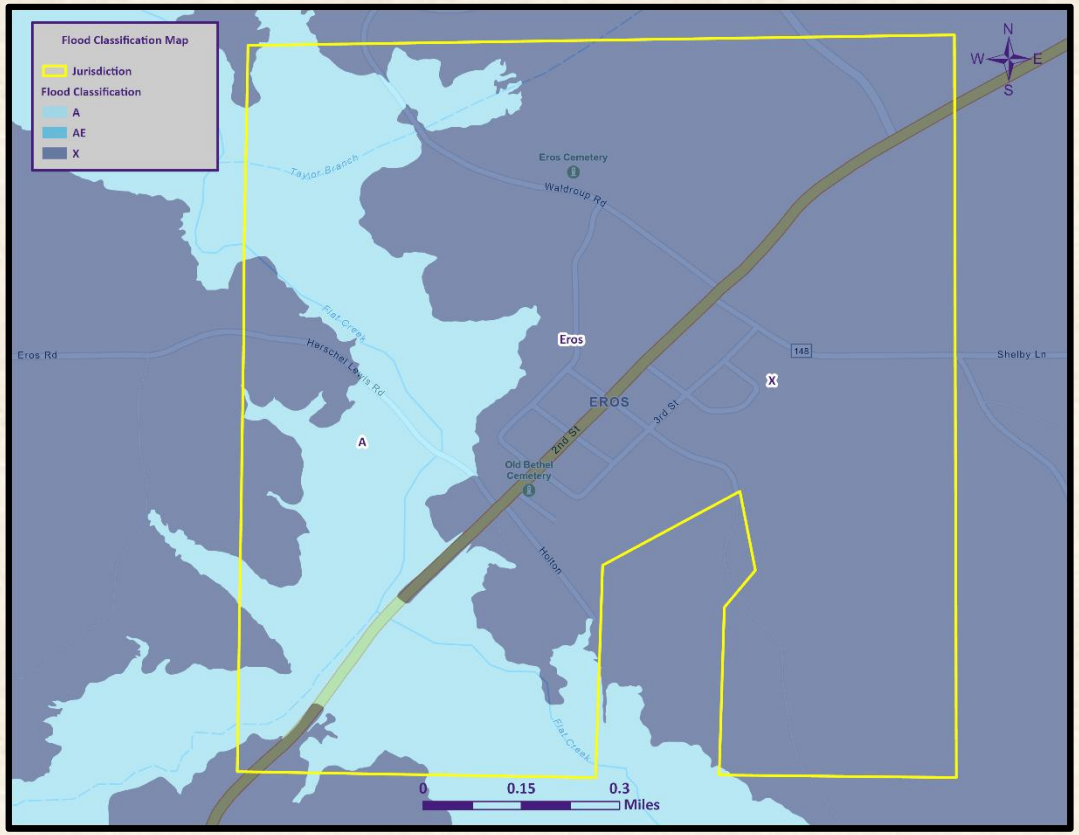
Chatham



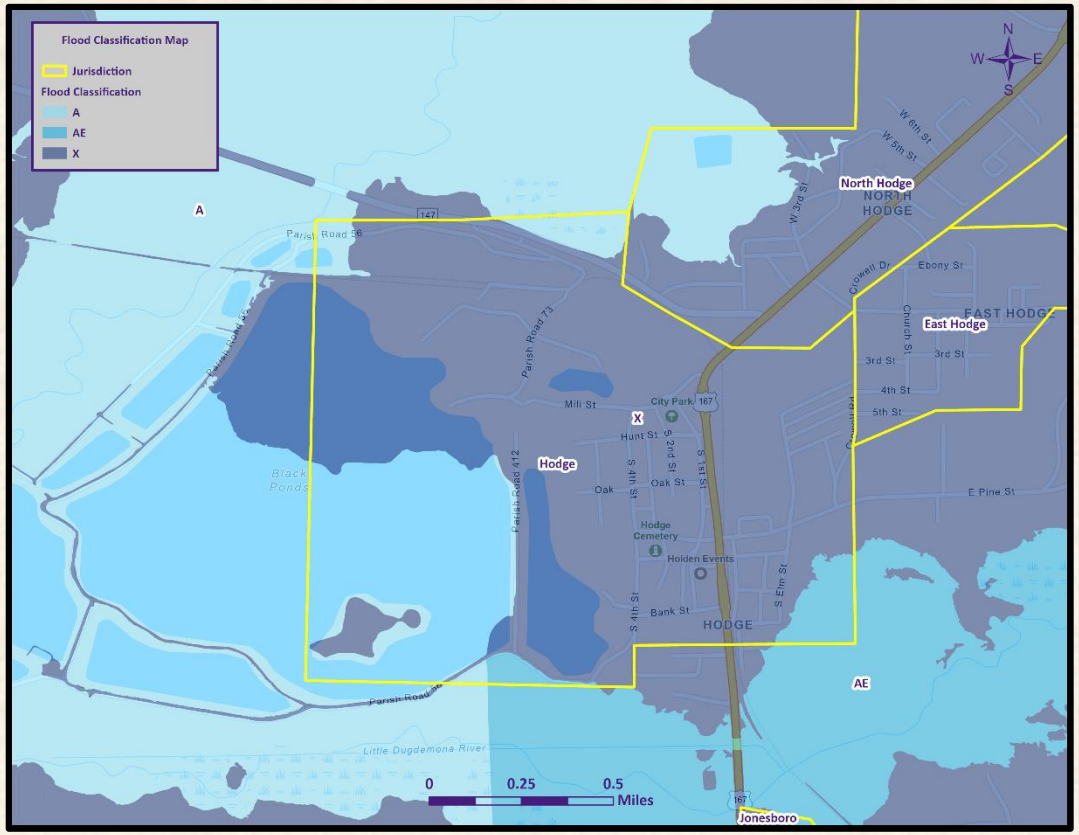
East Hodge

Jackson Parish Flood Maps

Source: FEMA Maps Service Center



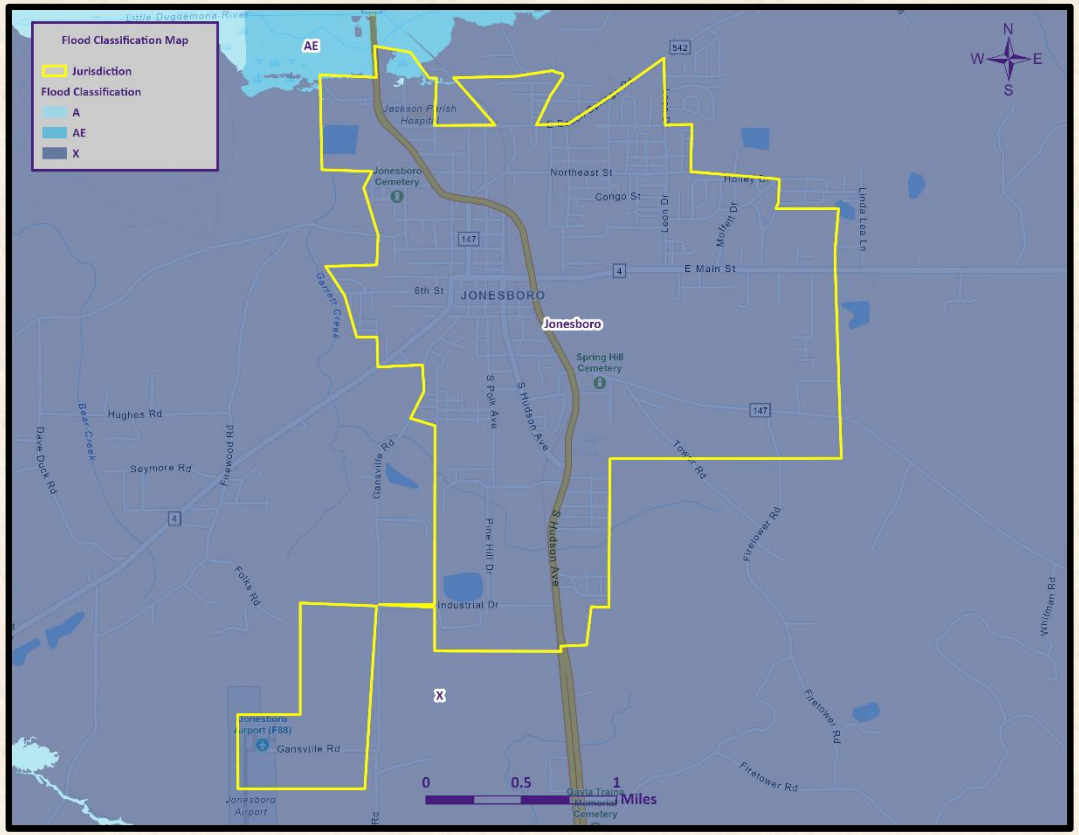
Eros



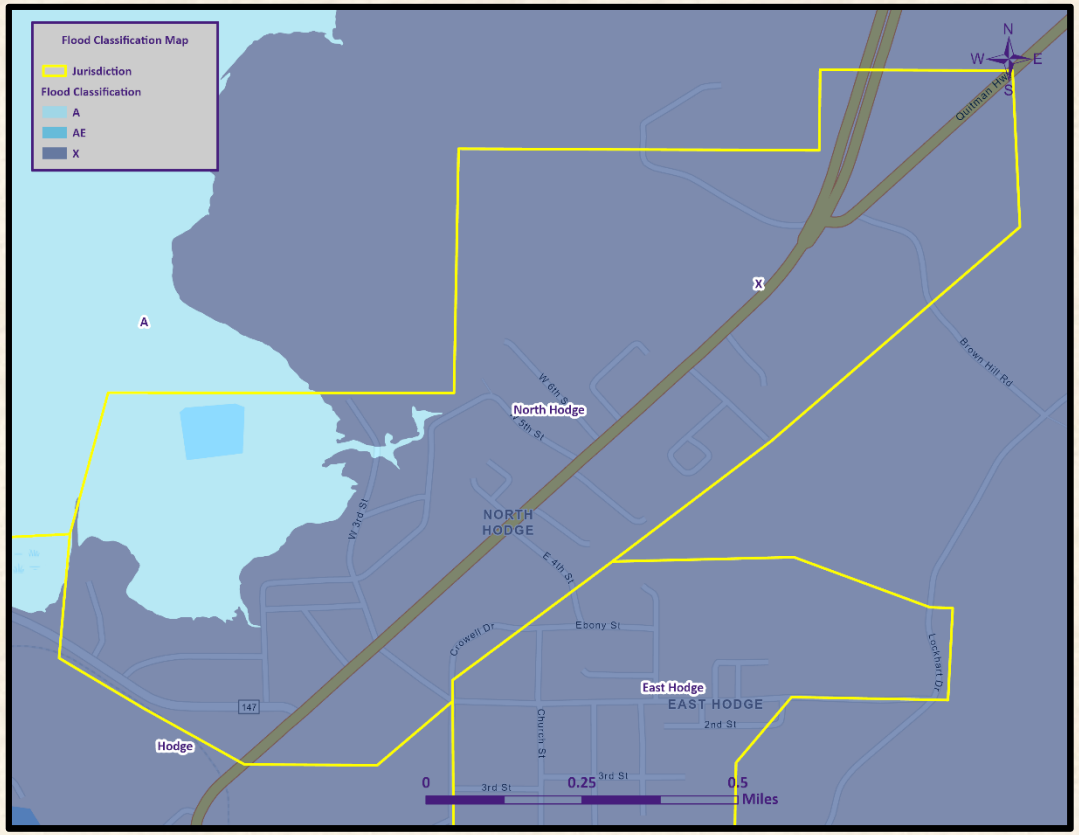
Hodge

Jackson Parish Flood Maps

Source: FEMA Maps Service Center



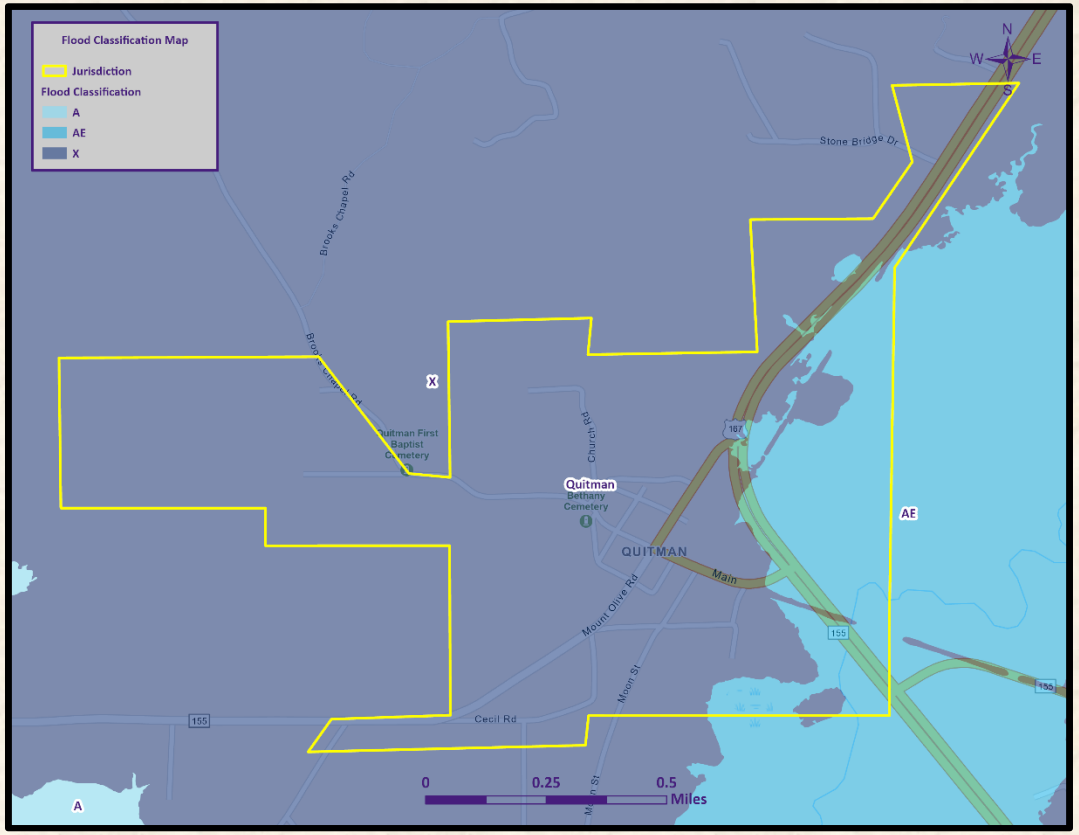
Jonesboro



North Hodge

Jackson Parish Flood Maps

Source: FEMA Maps Service Center



Quitman

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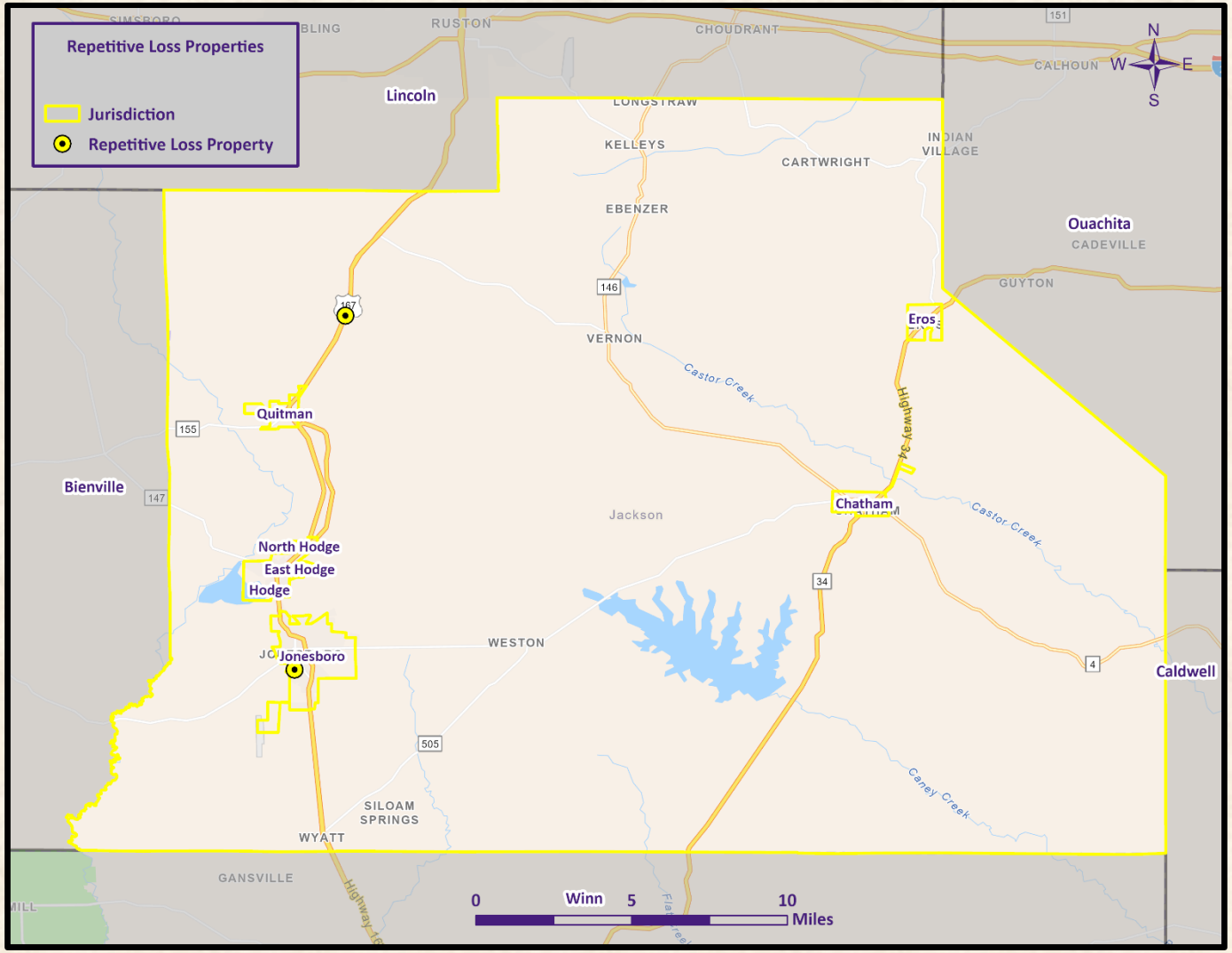
Flooding

- 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.
- There are currently over 250,000 repetitive loss properties in the U.S.
  - ~43,000 in Louisiana alone
- These properties comprise 1.3% of the NFIP policy base, but they account for approximately 25-30% of the country’s flood insurance claim payments.

Repetitive Loss Properties



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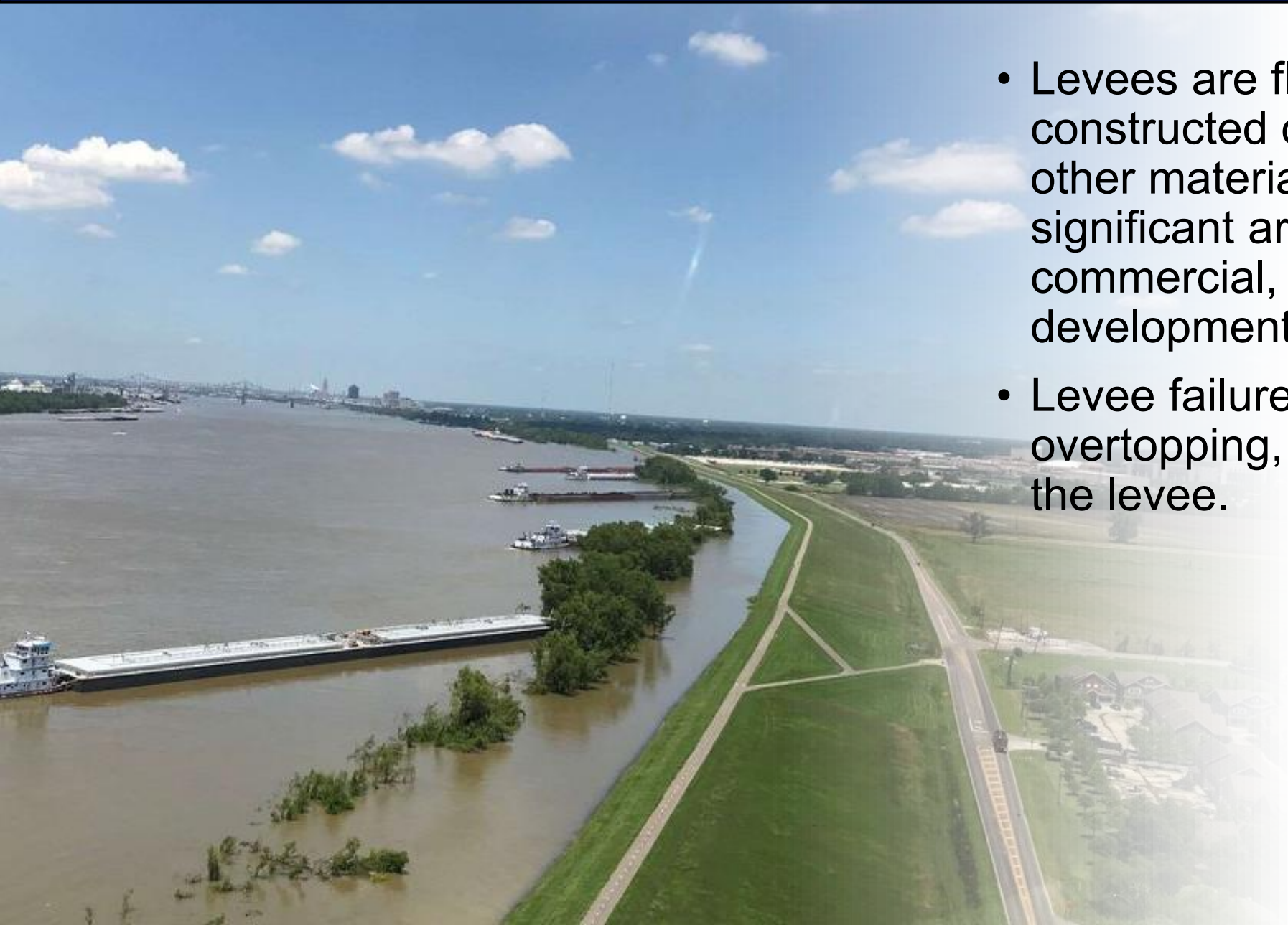
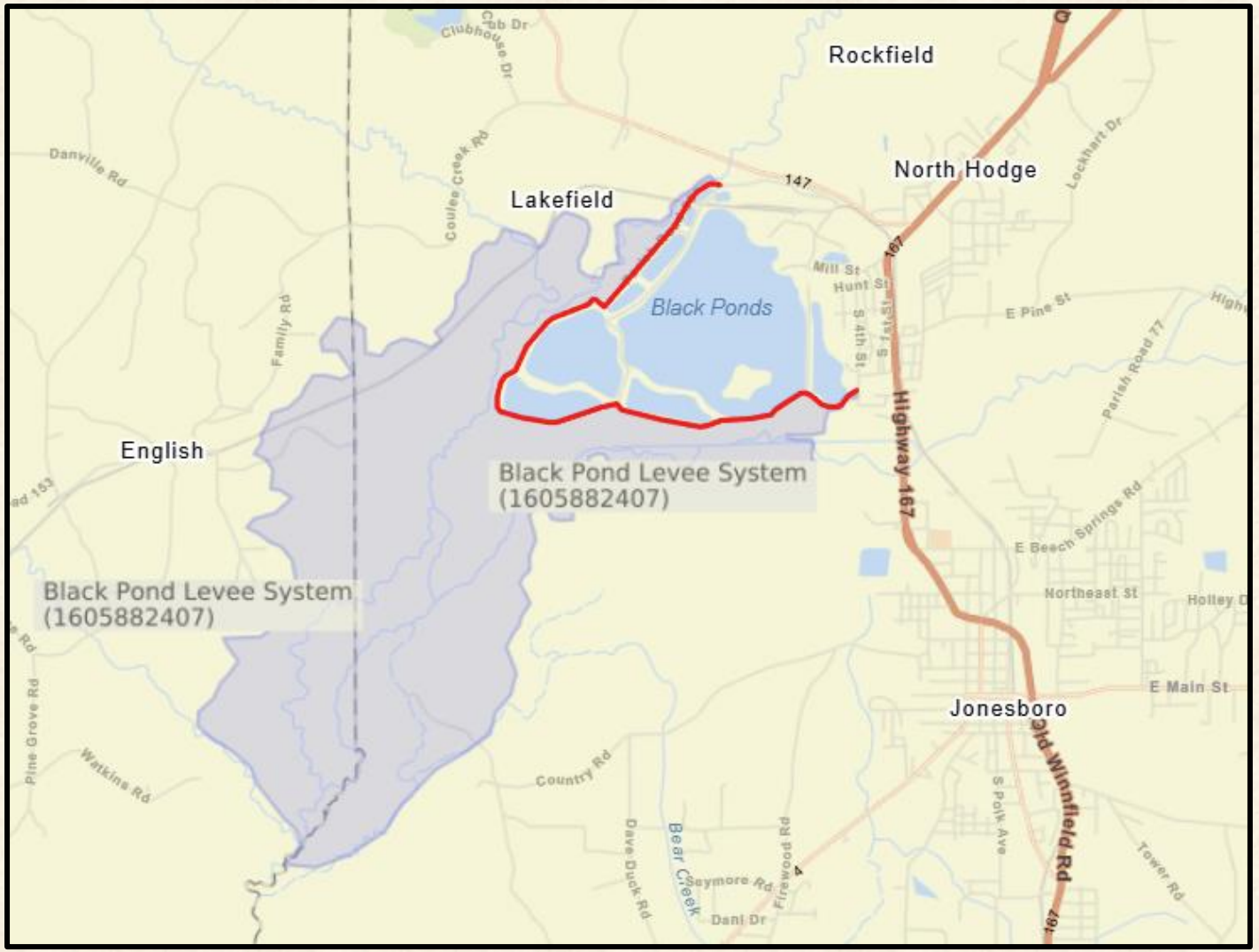
Levee Failure



- Levees are flood control barriers constructed of earth, concrete, or other materials that protect significant areas of residential, commercial, or industrial development.
- Levee failure involves the overtopping, breach, or collapse of the levee.

Levee Locations in Jackson Parish



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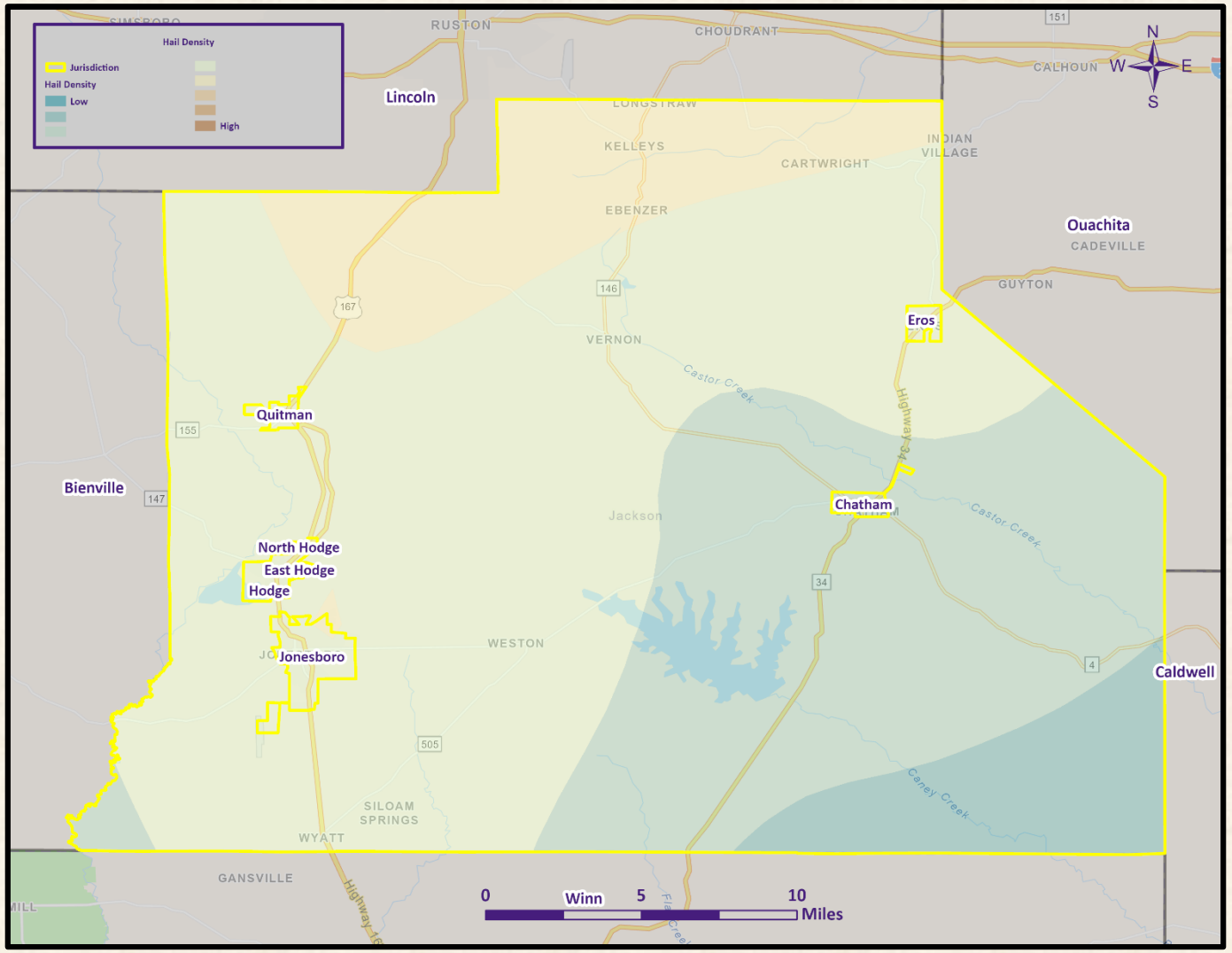
Thunderstorms

- 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 sheer causes a deviation in their course at a right angle to the wind shear direction.

Hailstorm Density in Jackson Parish



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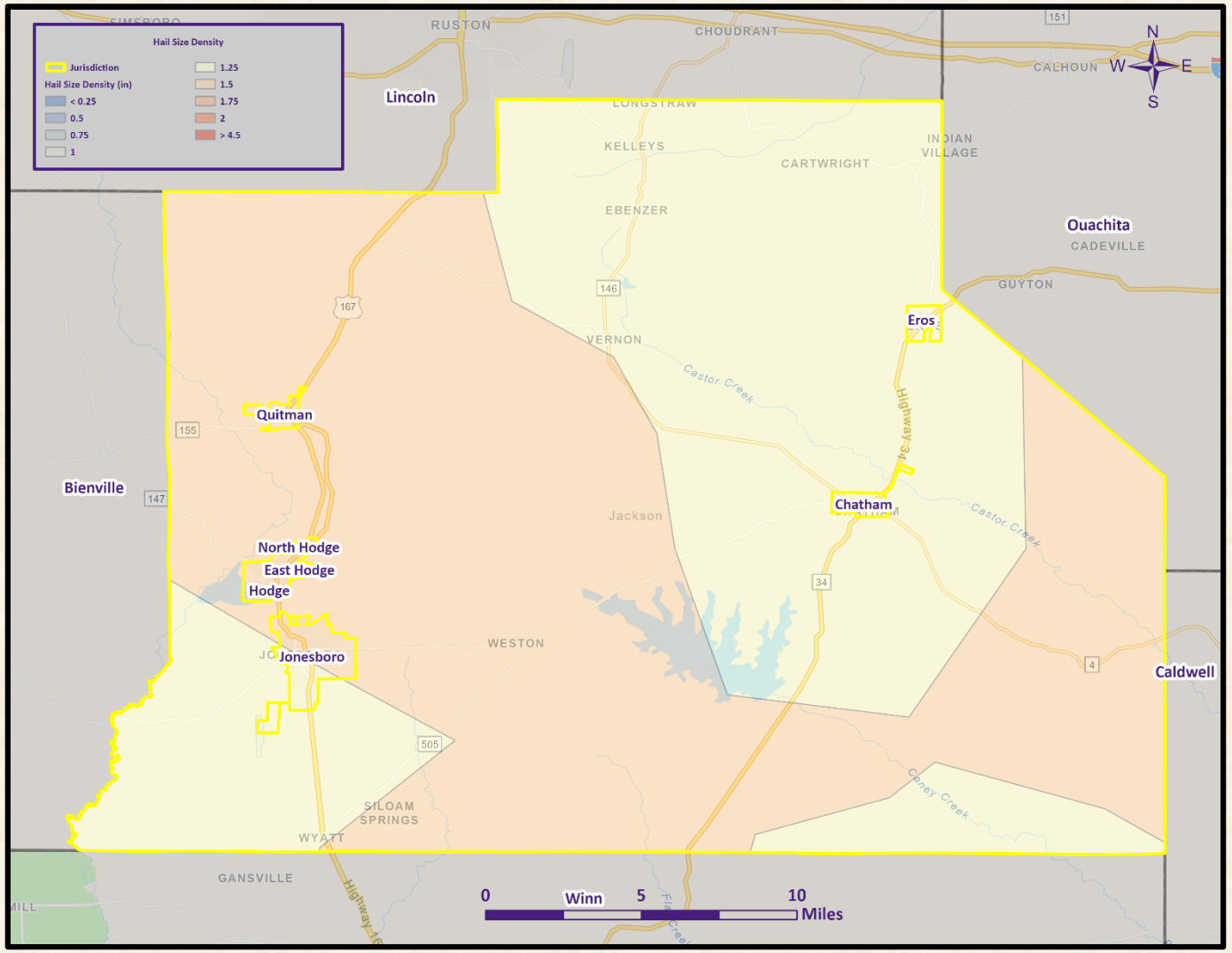
Maximum Hail Size Probability



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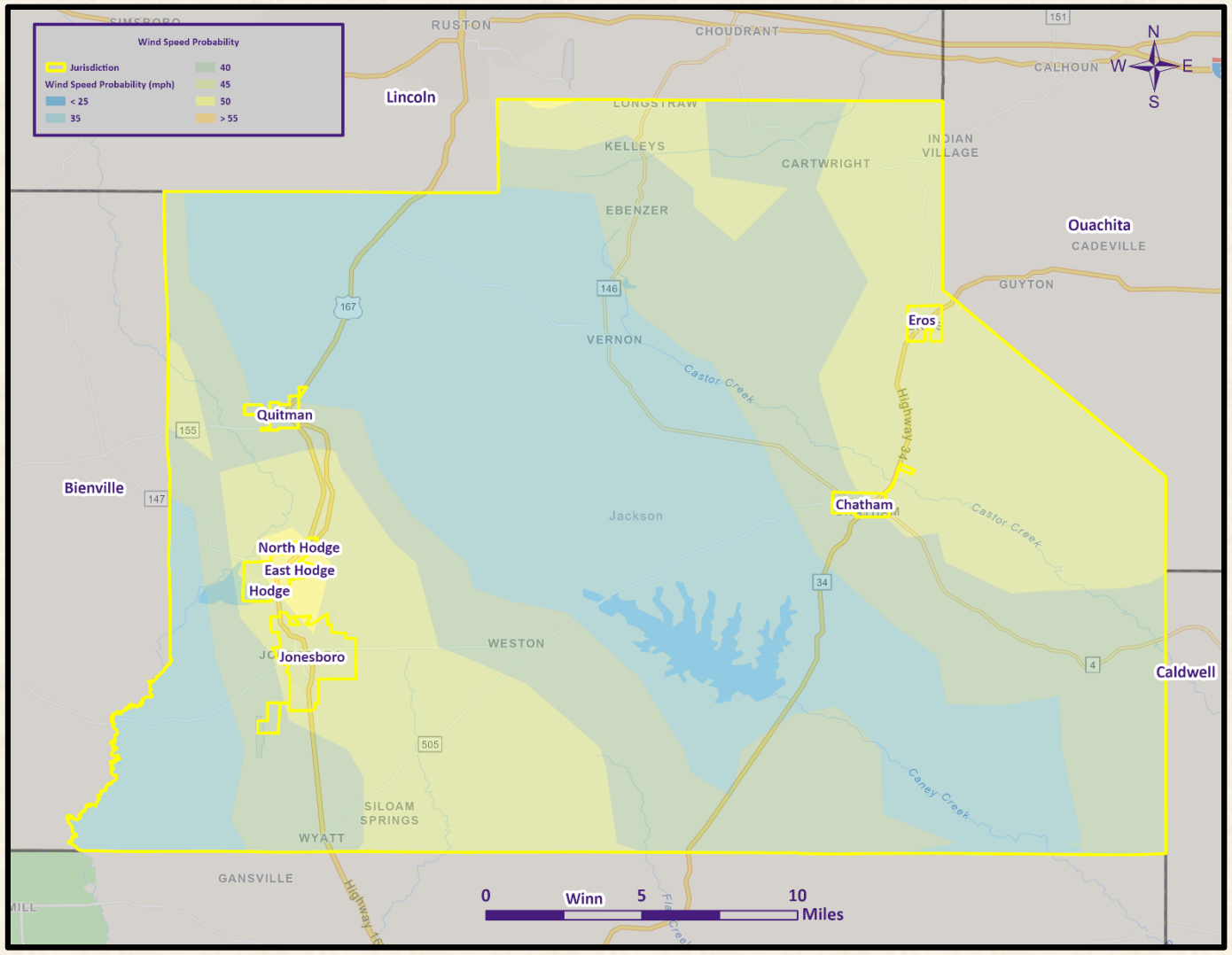
Maximum Wind Speed Probability



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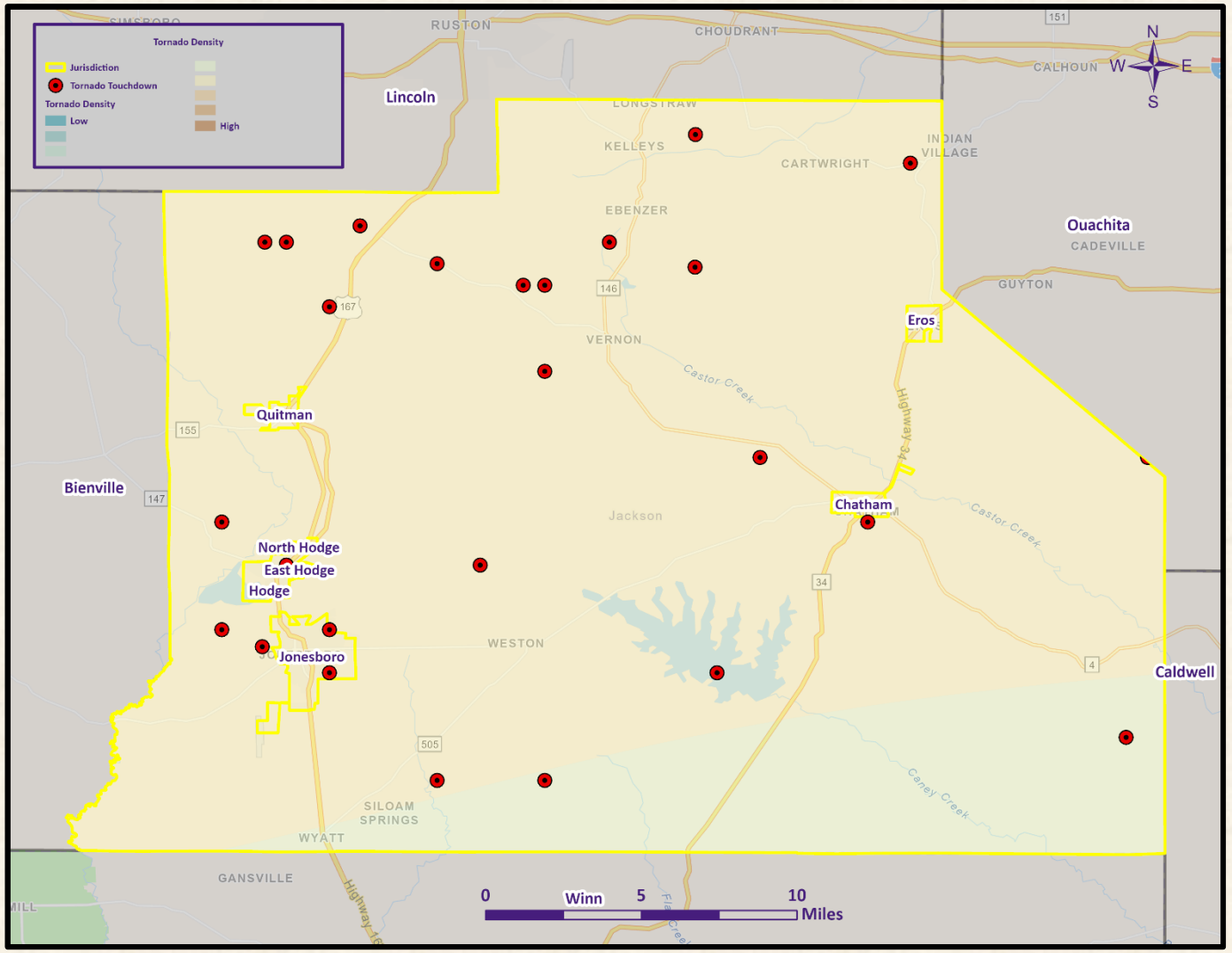
Tornadoes

- Tornadoes 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 in Jackson Parish



Source: NCEI Storm Events Database

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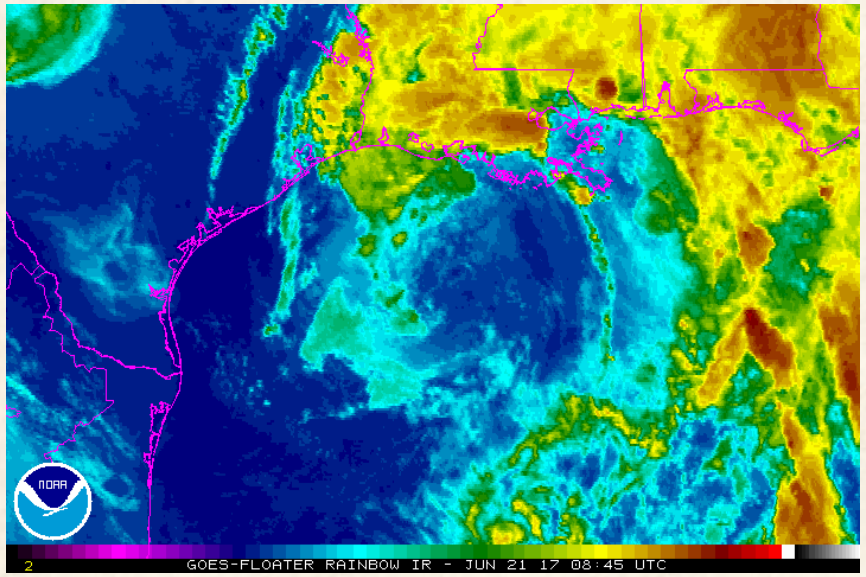
Tropical Cyclones

- 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.



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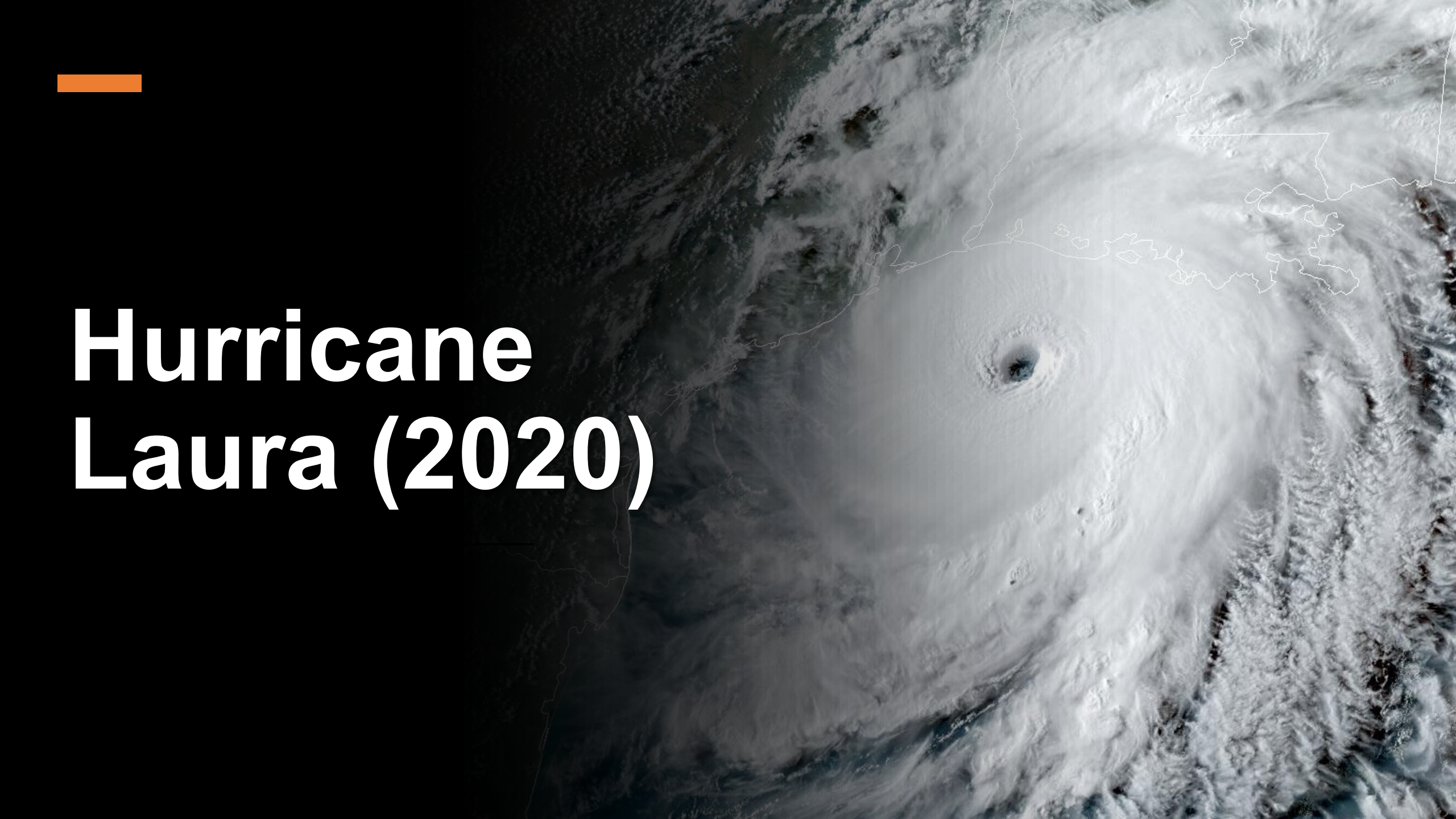
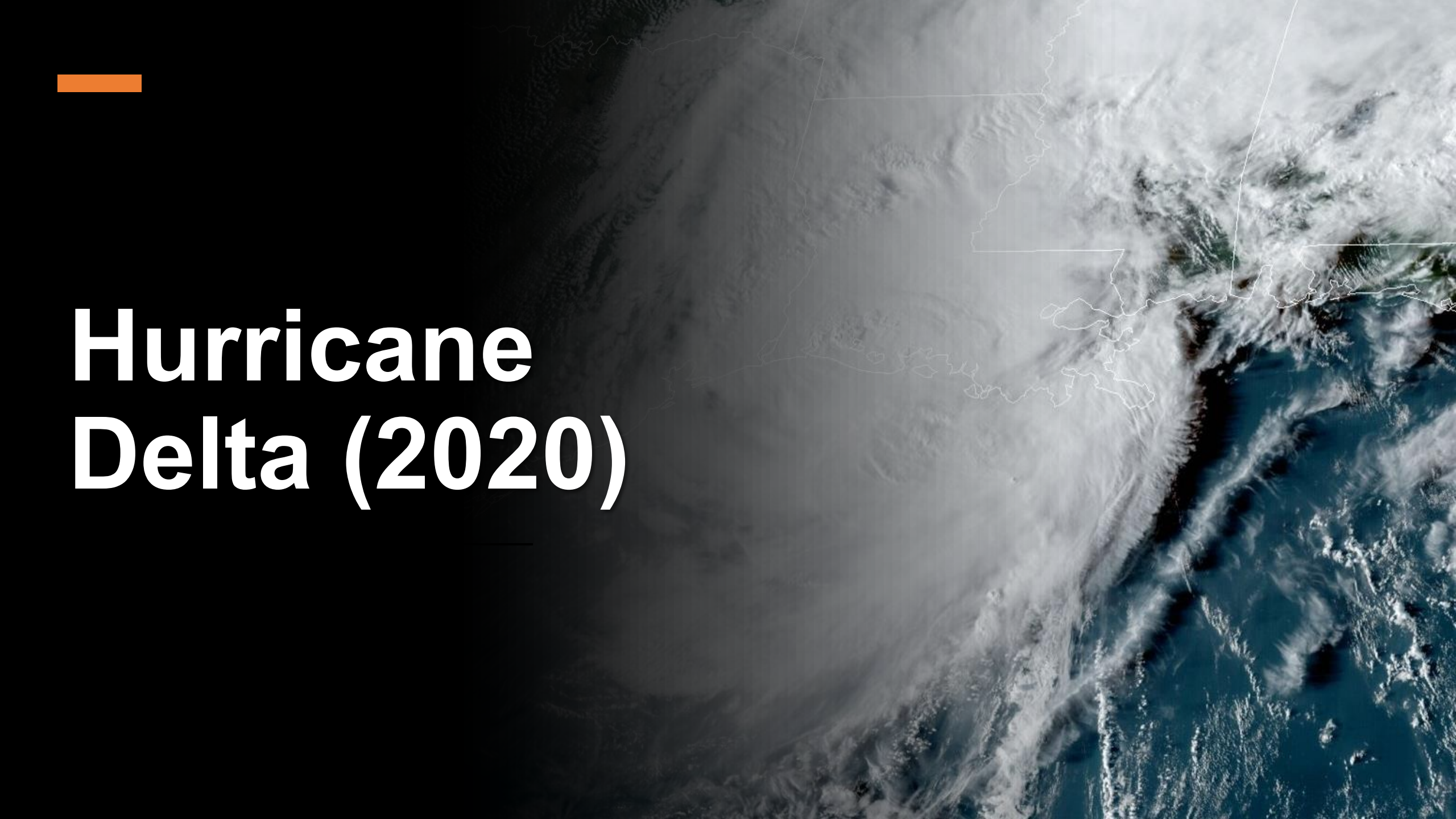
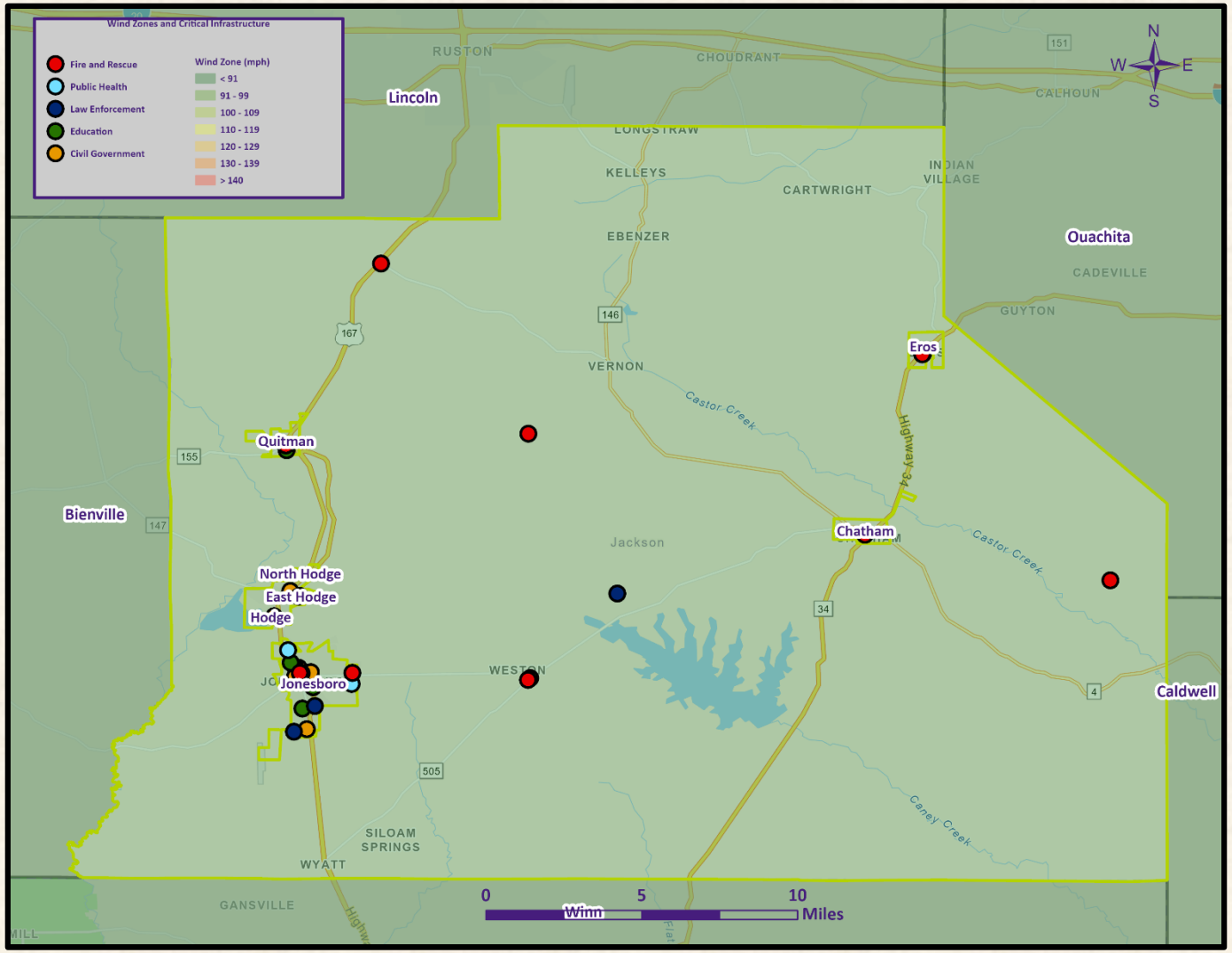
Hurricane Laura (2020)



Hurricane Delta (2020)



Wind Speed Impacts on C.I.



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SDMI Hazard Mitigation Website

- Repository for materials used during update process
- https://hmplans.sdmi.lsu.edu/Home/Parish/jackson


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