

Jackson Parish
Hazard Mitigation Plan Update
Public Meeting

October 6, 2016

Jonesboro, LA

LSU
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Stephenson National Center for Security Research and Training

Agenda

- Hazard Mitigation Planning Process – SDMI Staff
- Risk Assessment – SDMI Staff
- Update on Previous/Current Mitigation Projects – Jackson OHSEP
- Public Outreach Activities – SDMI & Jackson OHSEP

Hazard Mitigation

- Protect public safety and prevent loss of life and injury;
- Help accomplish community objectives, such as leveraging capital improvements, infrastructure protection, open space preservation, and economic resiliency;
- Prevent damage to a community's economic, cultural and environmental assets;
- Minimize operational downtime and accelerate recovery of government and the private sector after an event

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 migration 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.

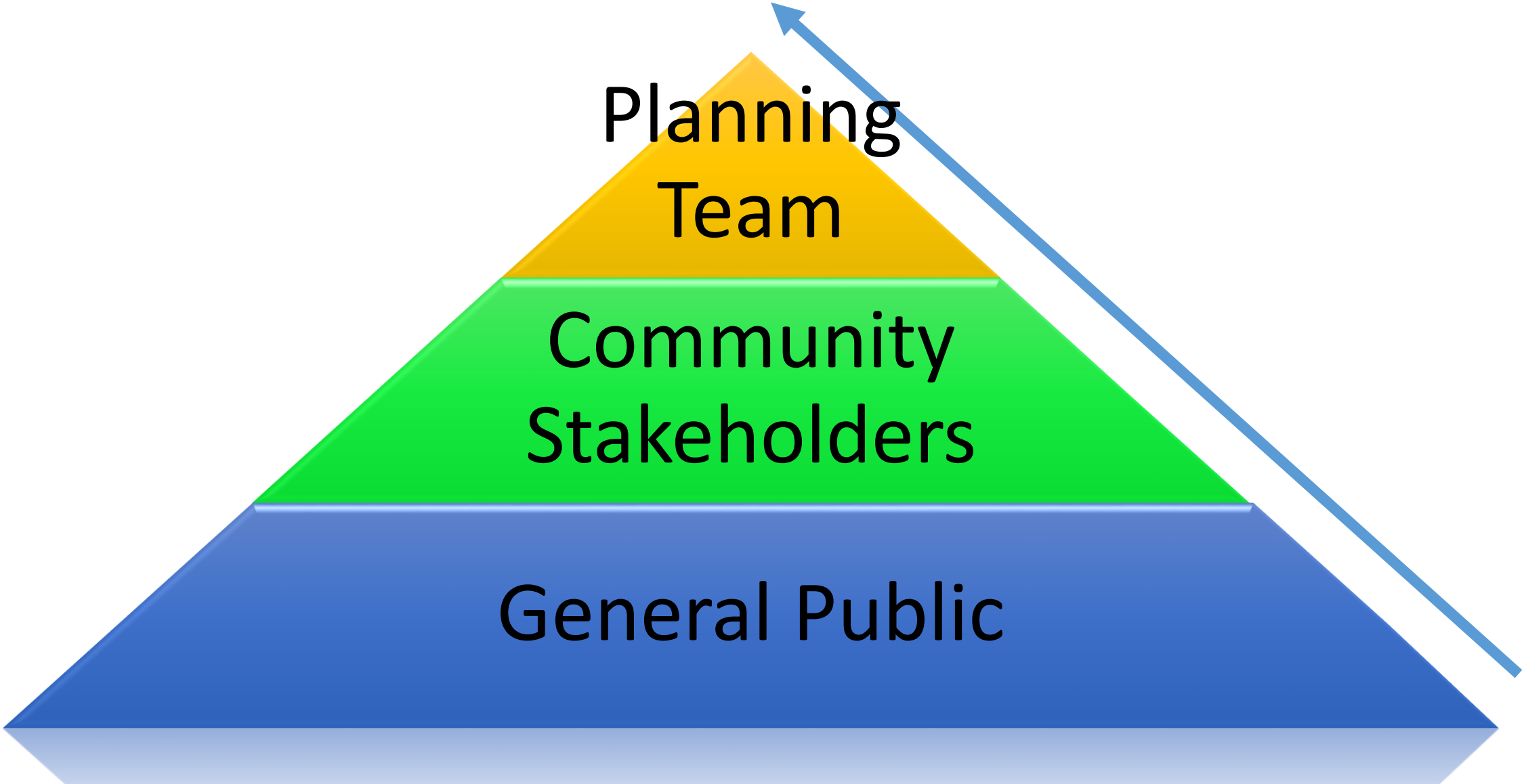




- The approved Jackson Parish Hazard Mitigation Plan will allow for distribution of HM funding following future disasters.

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Collaborative Planning Approach



Planning Development

New Plan Layout

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

New 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

- 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

- Flooding
- Thunderstorms
  - Lightning
  - High Winds
  - Hailstorms
- Tornadoes
- Tropical Cyclones
- Dam Failure
- Levee Failure

These natural hazards were selected based on an assessment of the overall impact (geographic extent, magnitude, probability, and exacerbating or mitigating conditions) affecting Jackson Parish.

Risk Assessment: Hazard Identification

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

Risk Assessment: Analyze Risk and Summarize Vulnerability

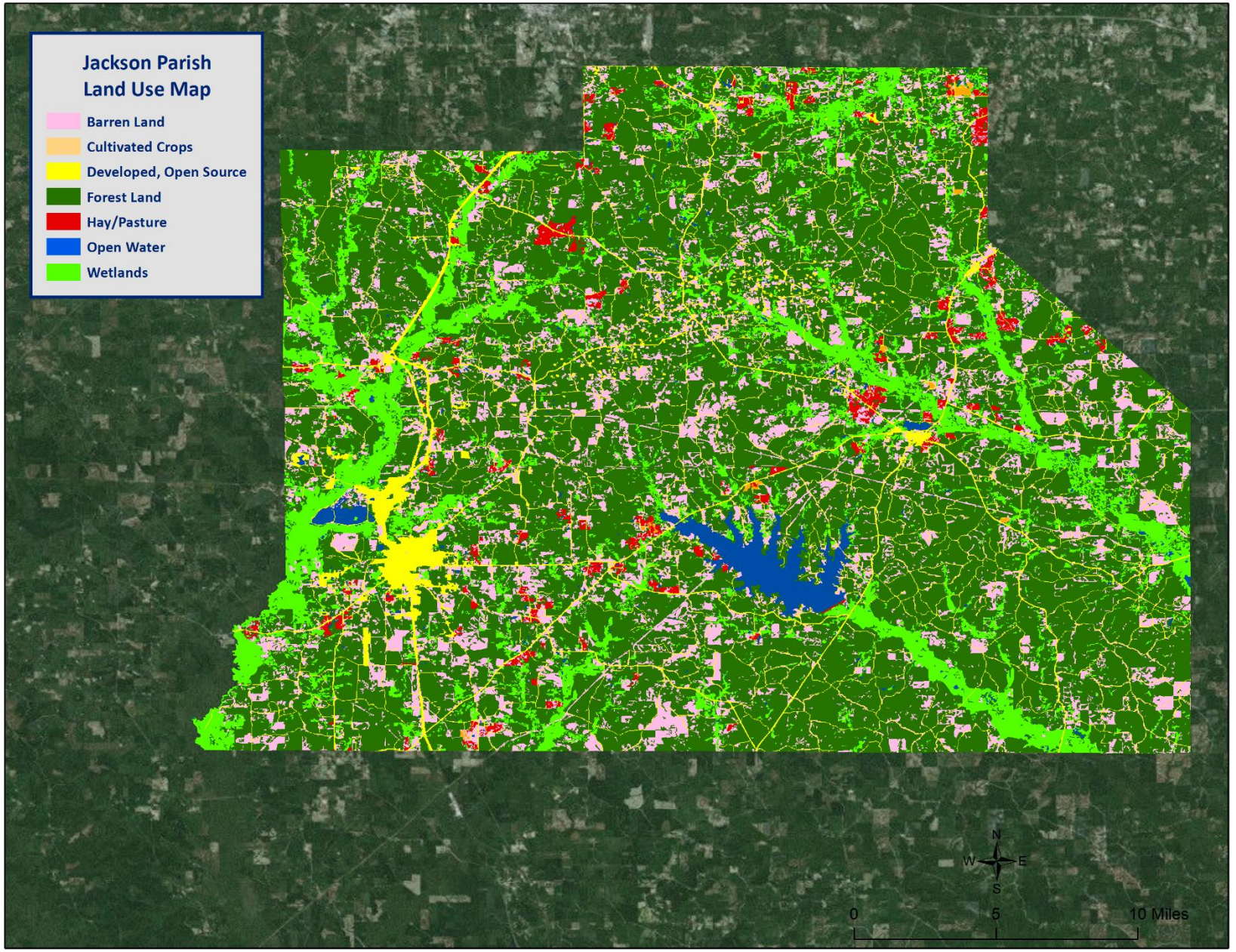
- Risk analysis involves evaluating vulnerable assets, describing potential impacts, and estimating losses for each hazard.
- This helps the community understand the greatest risks facing the area.
- Methods can include exposure risk analysis, historical analysis and scenario analysis.
- Through the risk analysis, the community should be able to verbalize or create problem statements about the identified risks.

Risk Assessment: Maps



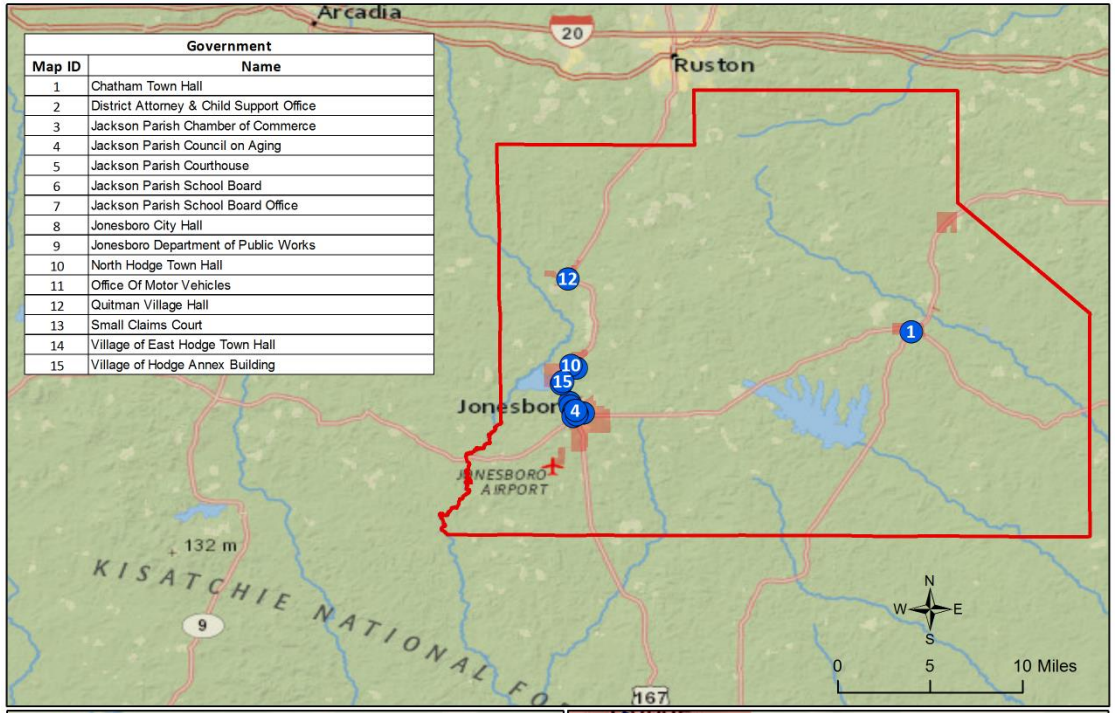


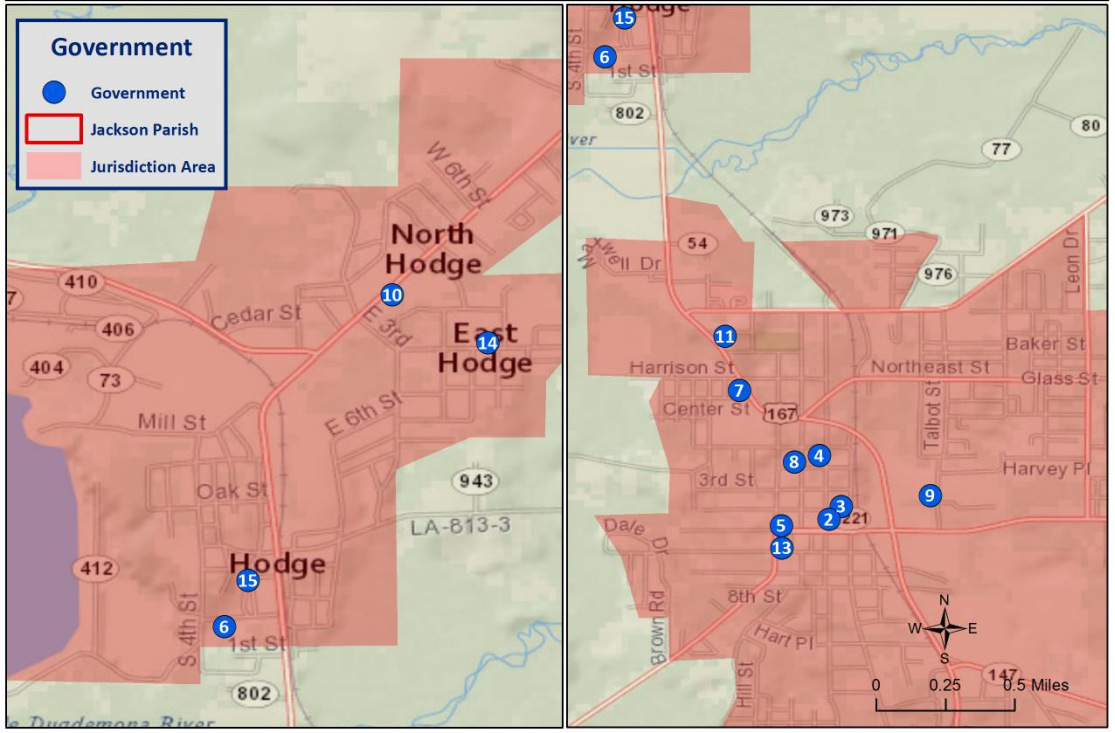
Land Use in Jackson Parish



Critical Facilities – Government Buildings

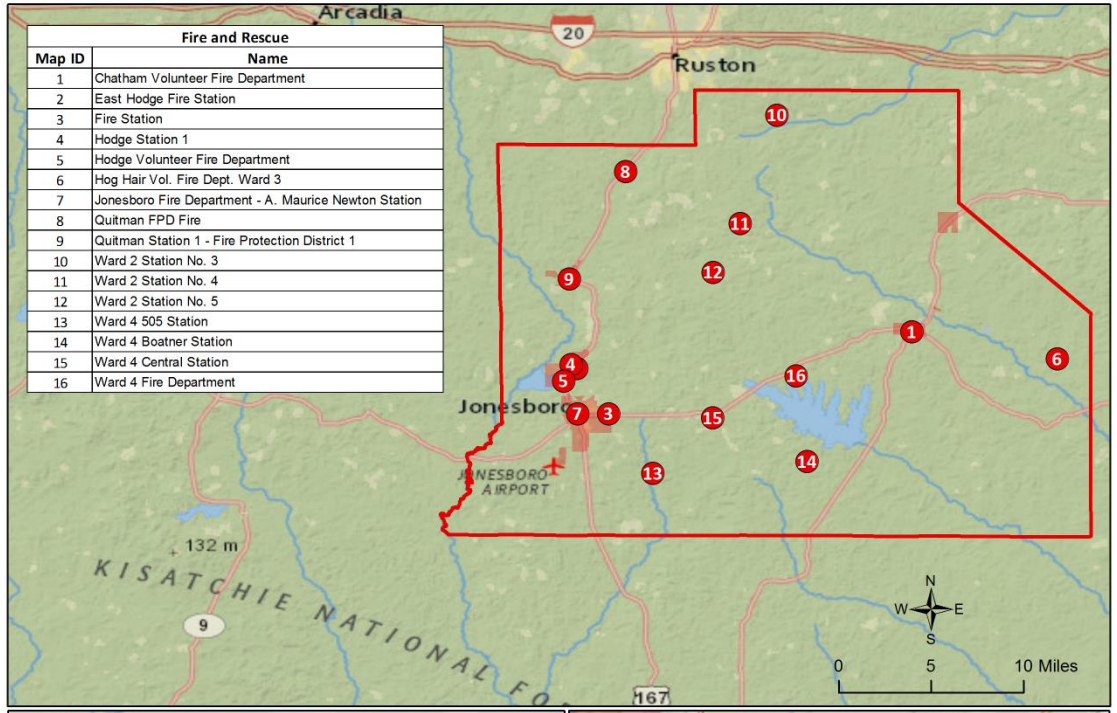
Government	
Map ID	Name
1	Chatham Town Hall
2	District Attorney & Child Support Office
3	Jackson Parish Chamber of Commerce
4	Jackson Parish Council on Aging
5	Jackson Parish Courthouse
6	Jackson Parish School Board
7	Jackson Parish School Board Office
8	Jonesboro City Hall
9	Jonesboro Department of Public Works
10	North Hodge Town Hall
11	Office Of Motor Vehicles
12	Quitman Village Hall
13	Small Claims Court
14	Village of East Hodge Town Hall
15	Village of Hodge Annex Building

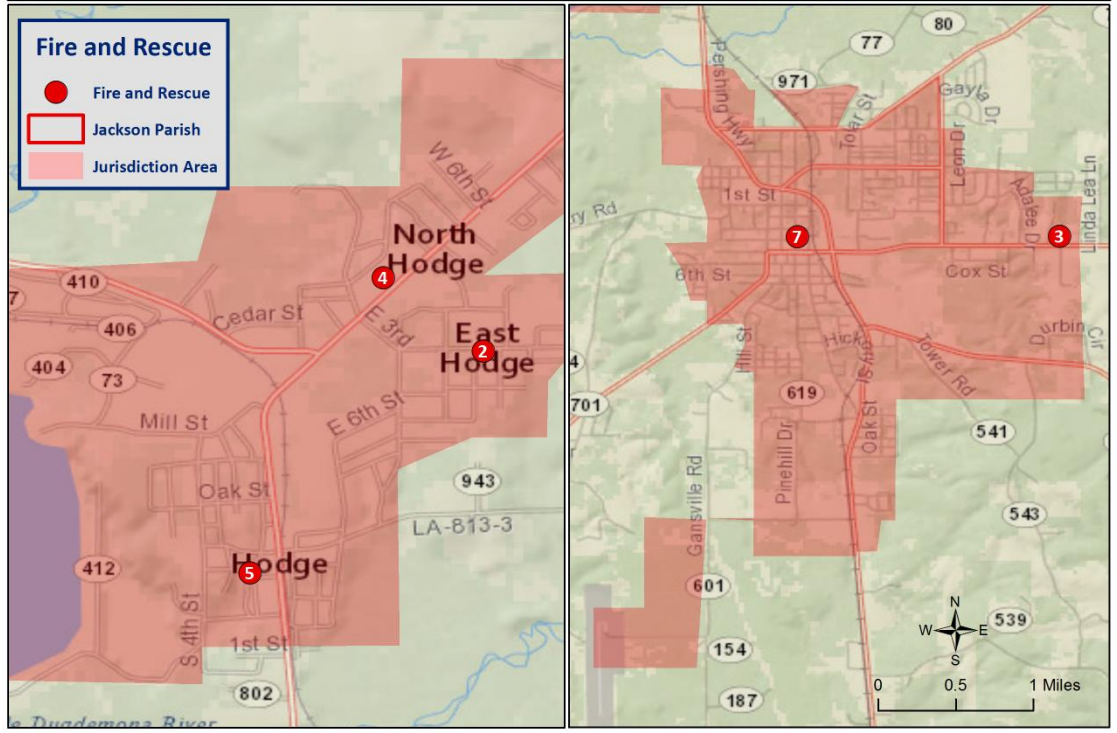




Critical Facilities – Fire Stations

Fire and Rescue	
Map ID	Name
1	Chatham Volunteer Fire Department
2	East Hodge Fire Station
3	Fire Station
4	Hodge Station 1
5	Hodge Volunteer Fire Department
6	Hog Hair Vol. Fire Dept. Ward 3
7	Jonesboro Fire Department - A. Maurice Newton Station
8	Quitman FPD Fire
9	Quitman Station 1 - Fire Protection District 1
10	Ward 2 Station No. 3
11	Ward 2 Station No. 4
12	Ward 2 Station No. 5
13	Ward 4 505 Station
14	Ward 4 Boatner Station
15	Ward 4 Central Station
16	Ward 4 Fire Department

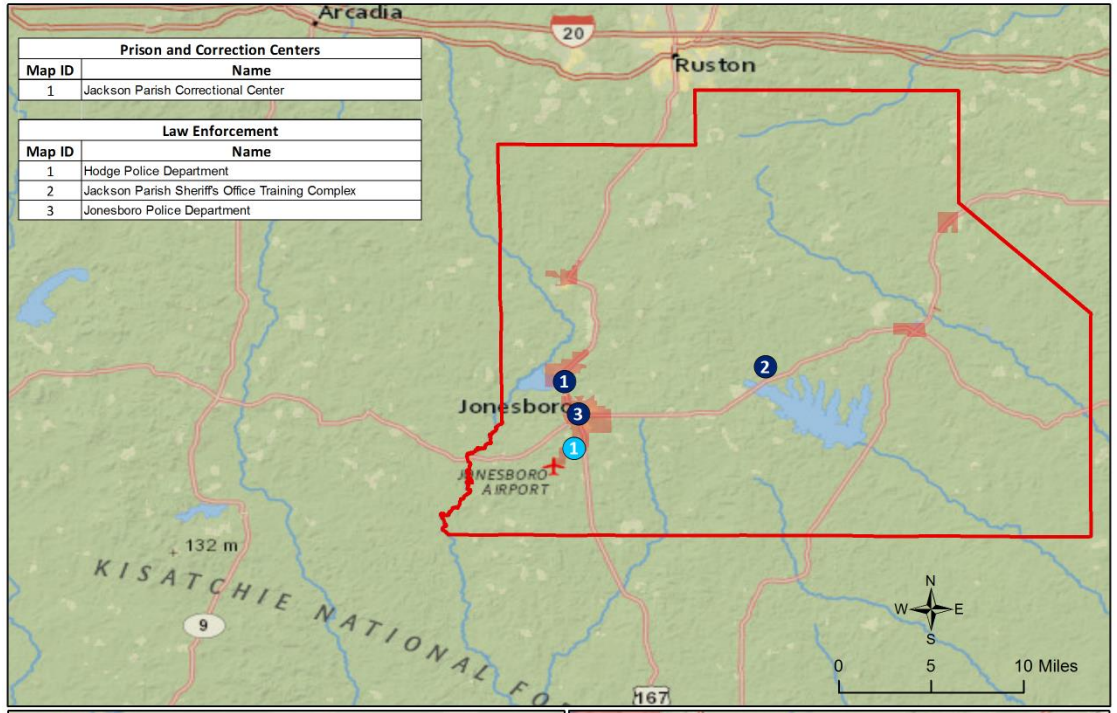


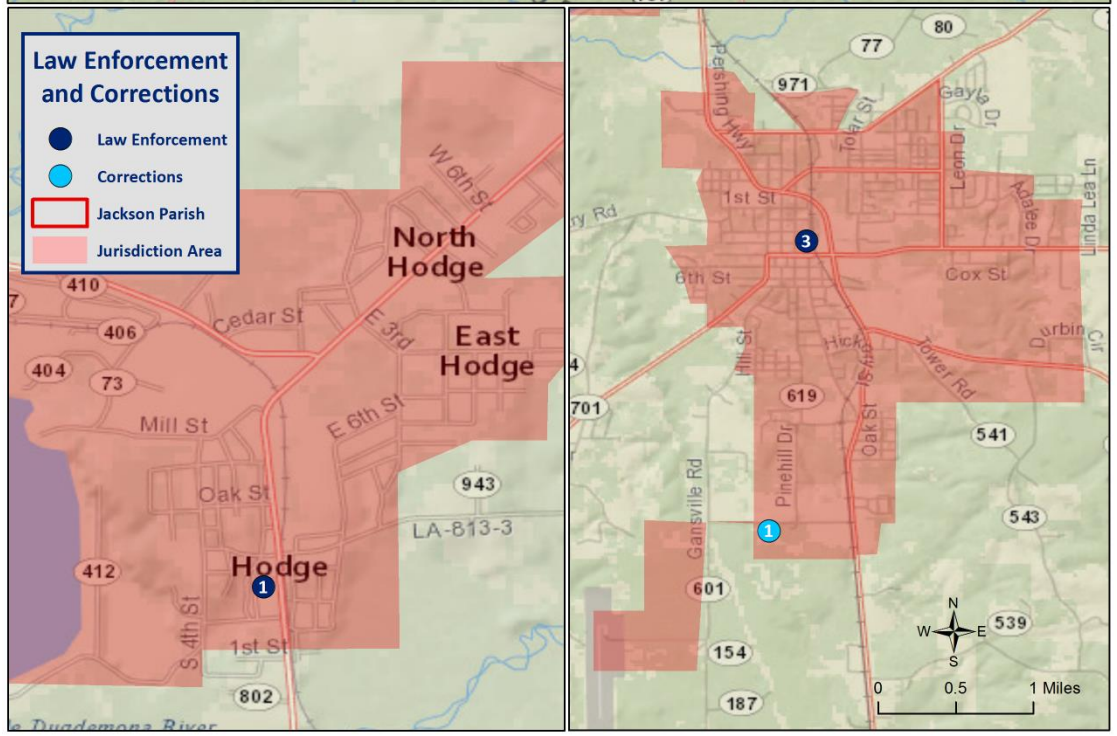


Critical Facilities – Law Enforcement

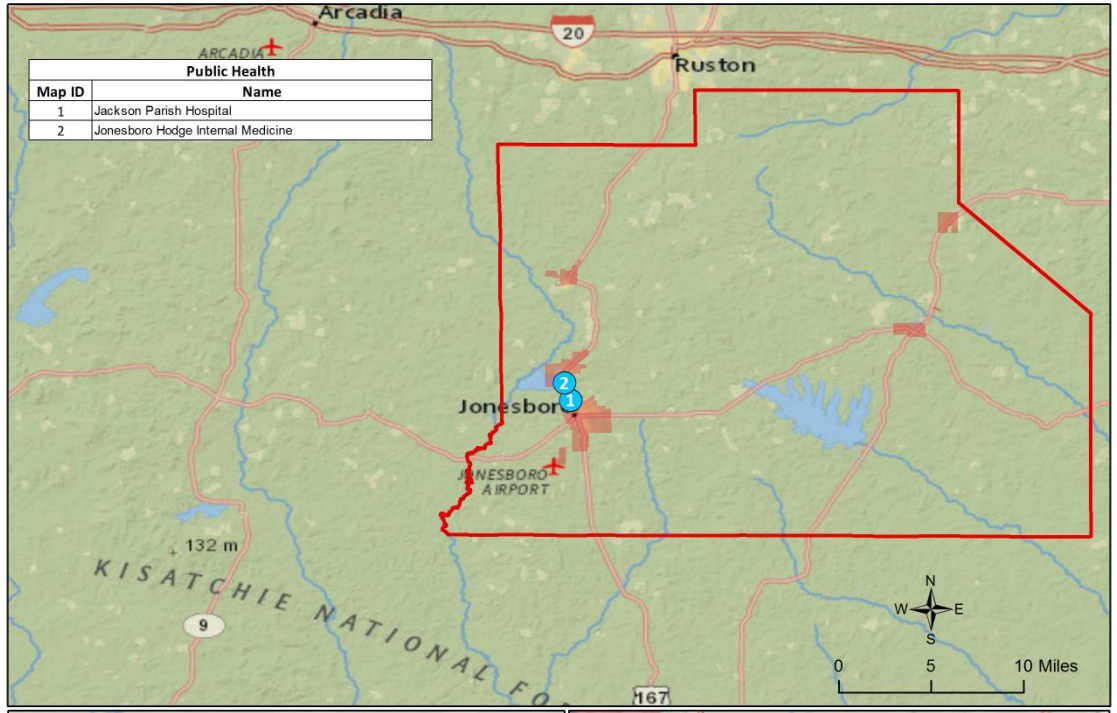
Prison and Correction Centers	
Map ID	Name
1	Jackson Parish Correctional Center

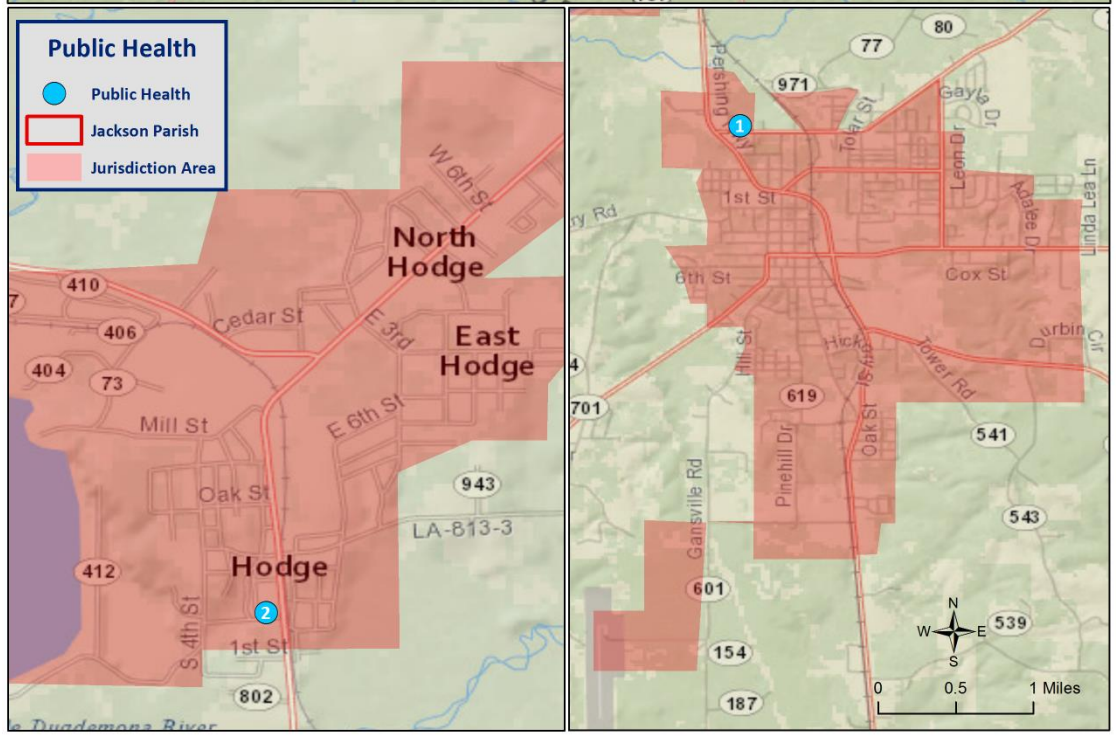
Law Enforcement	
Map ID	Name
1	Hodge Police Department
2	Jackson Parish Sheriff's Office Training Complex
3	Jonesboro Police Department





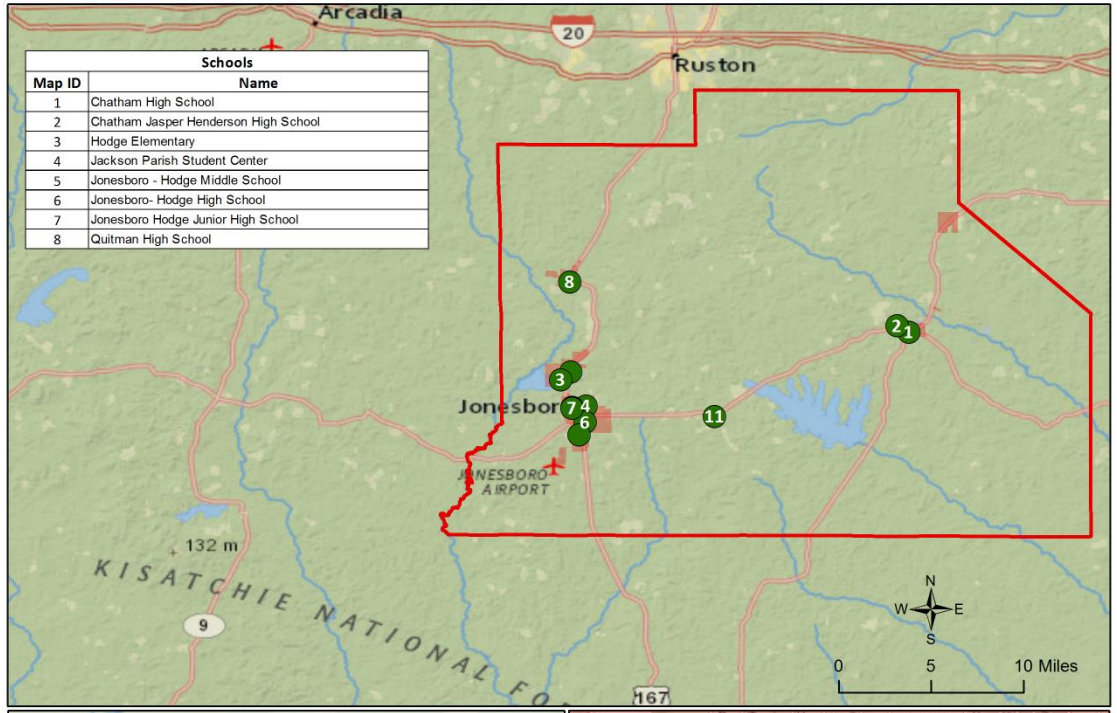
Critical Facilities – Public Health

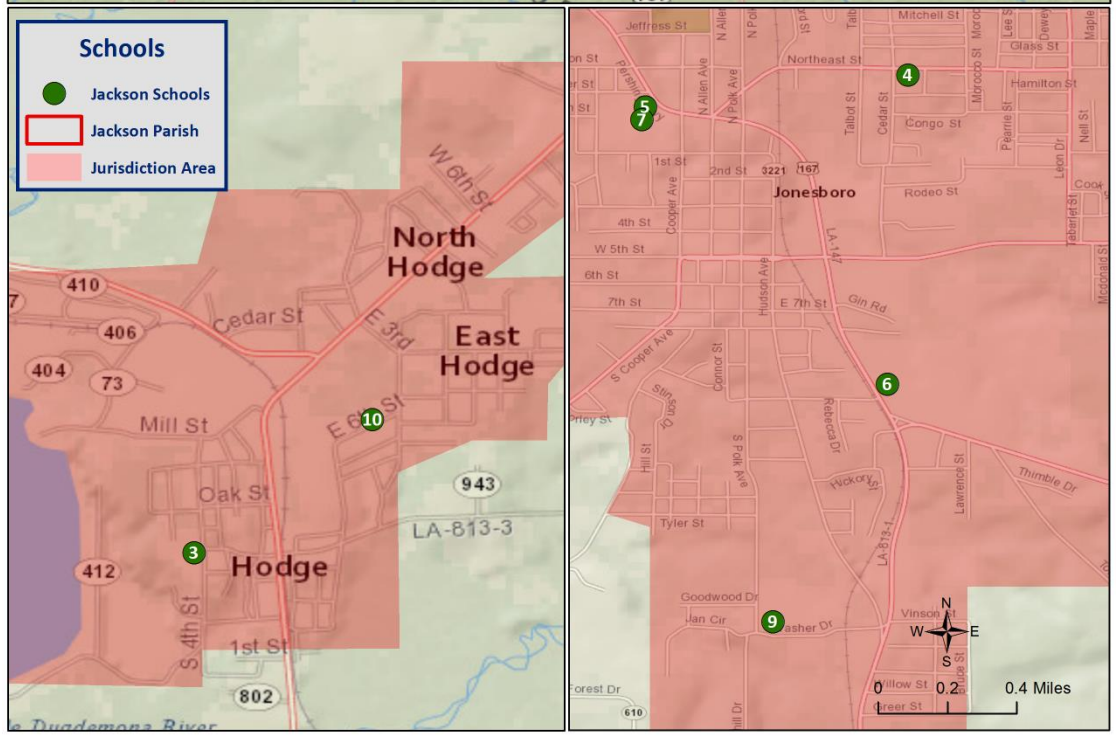




Critical Facilities – Schools

Schools	
Map ID	Name
1	Chatham High School
2	Chatham Jasper Henderson High School
3	Hodge Elementary
4	Jackson Parish Student Center
5	Jonesboro - Hodge Middle School
6	Jonesboro- Hodge High School
7	Jonesboro Hodge Junior High School
8	Quitman High School





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.

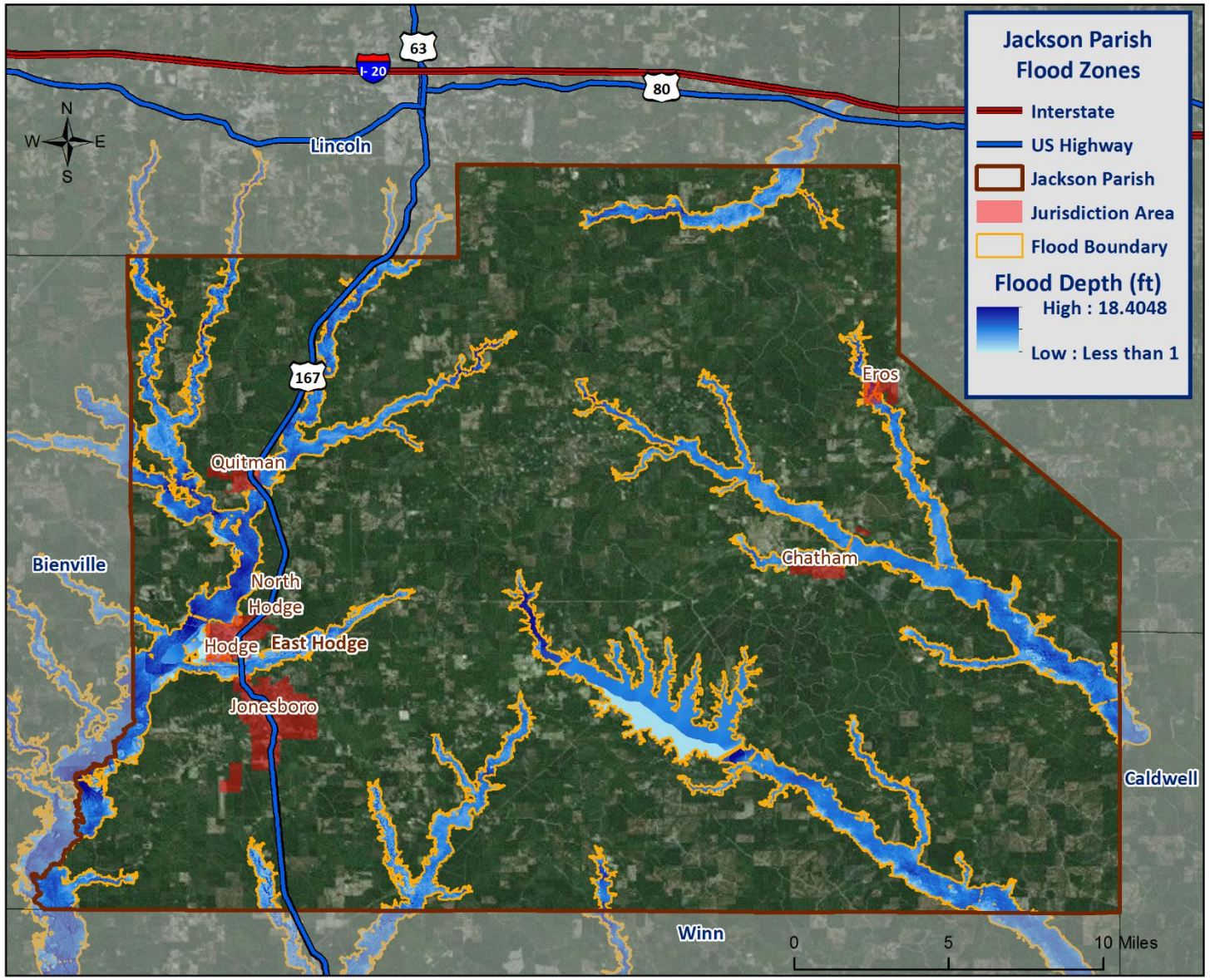
Flooding

Types of flooding may include the following:

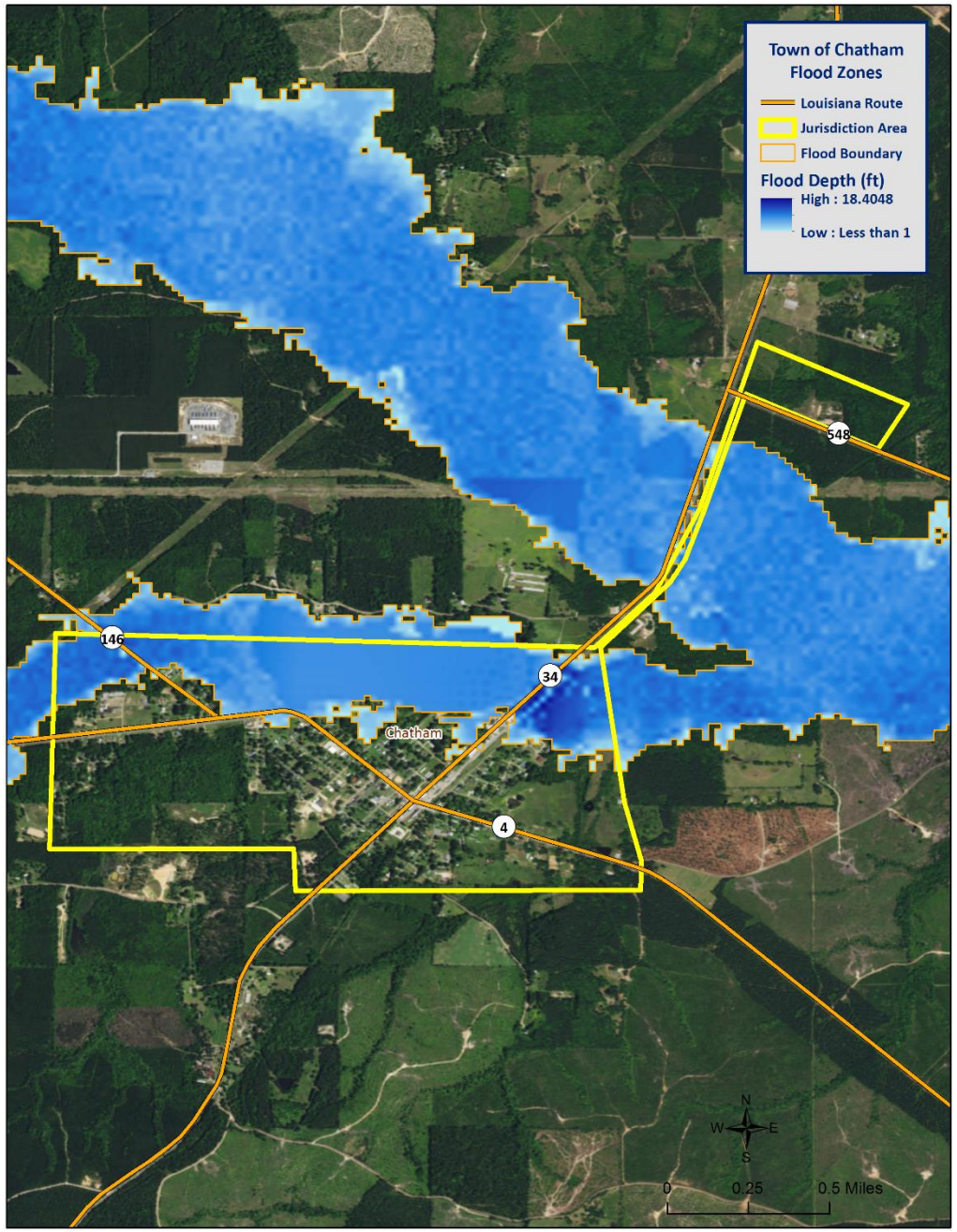
- Riverine
- Flash
- Ponding
- Backwater
- Urban
- Coastal



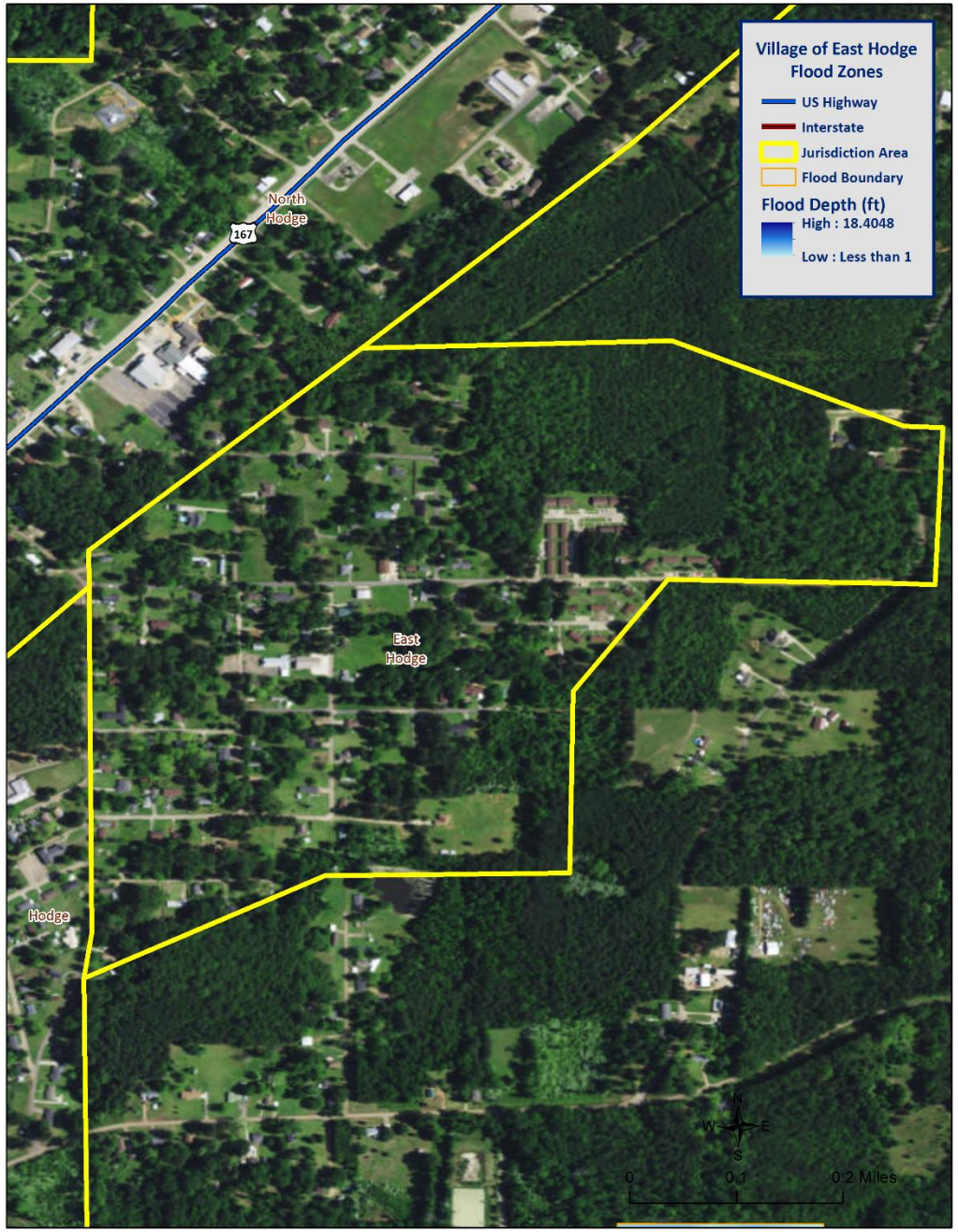
Flood Zone Classifications – Parish/Jurisdictions



Flood Zone Classifications

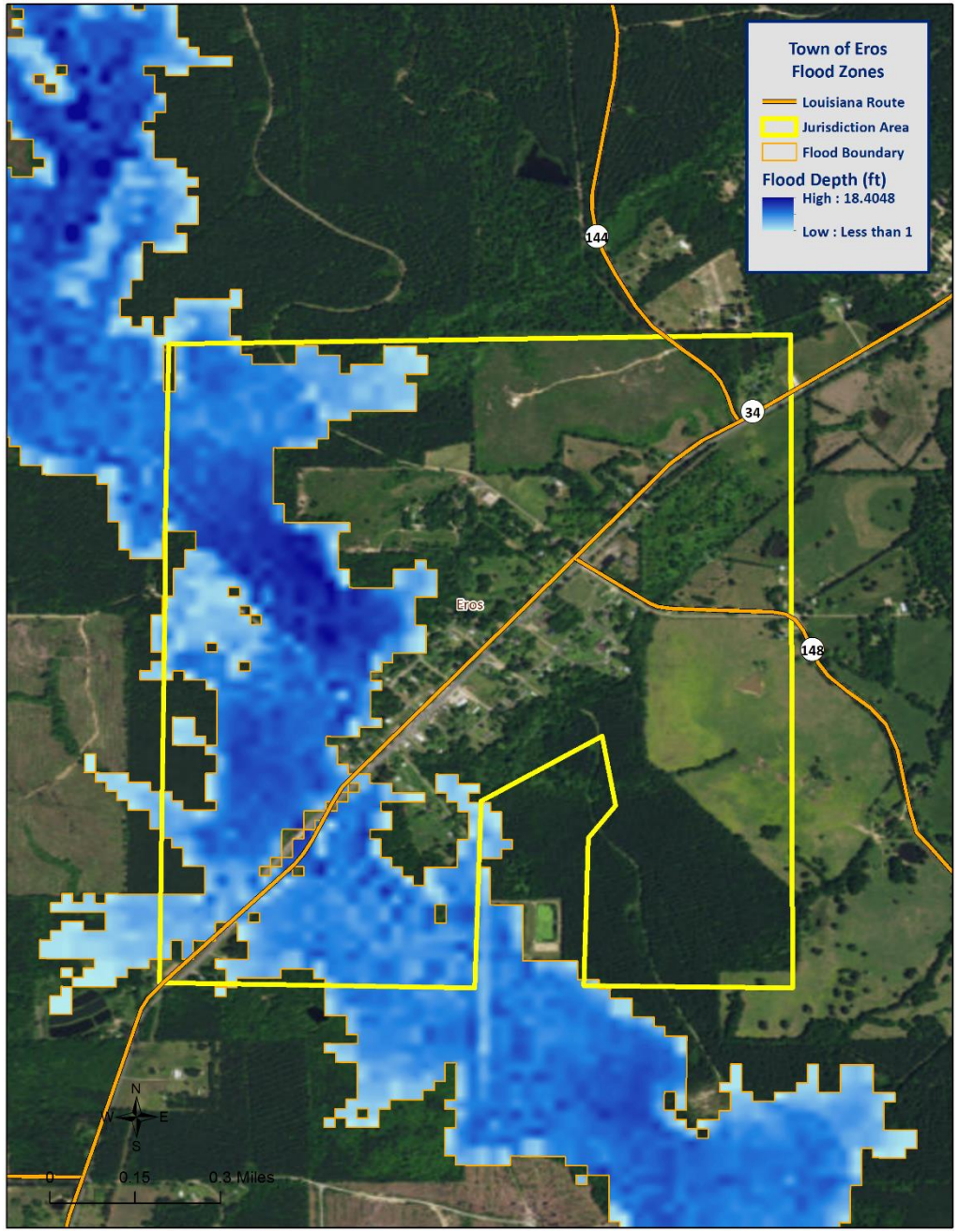


Town of Chatham

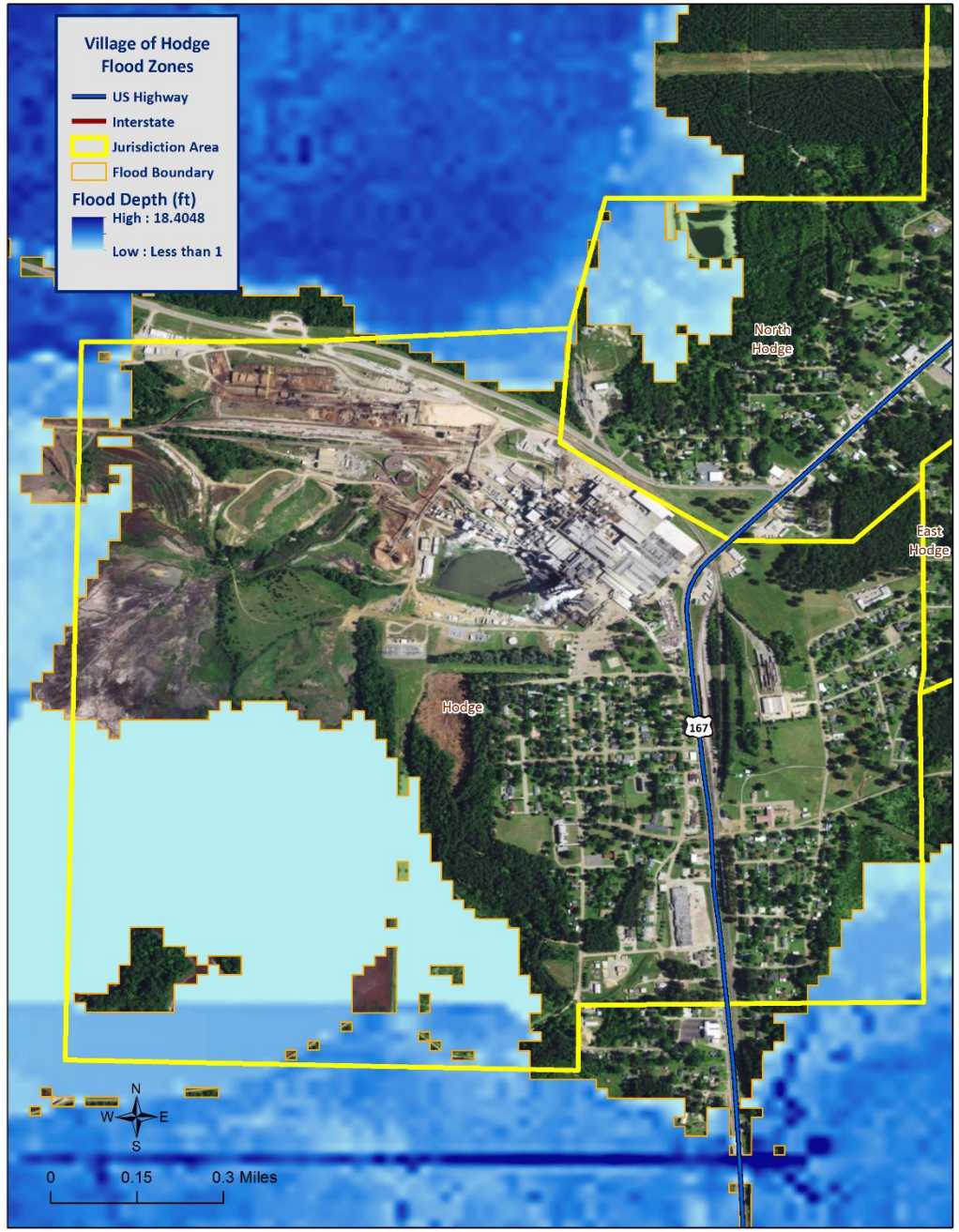


Village of East Hodge

Flood Zone Classifications

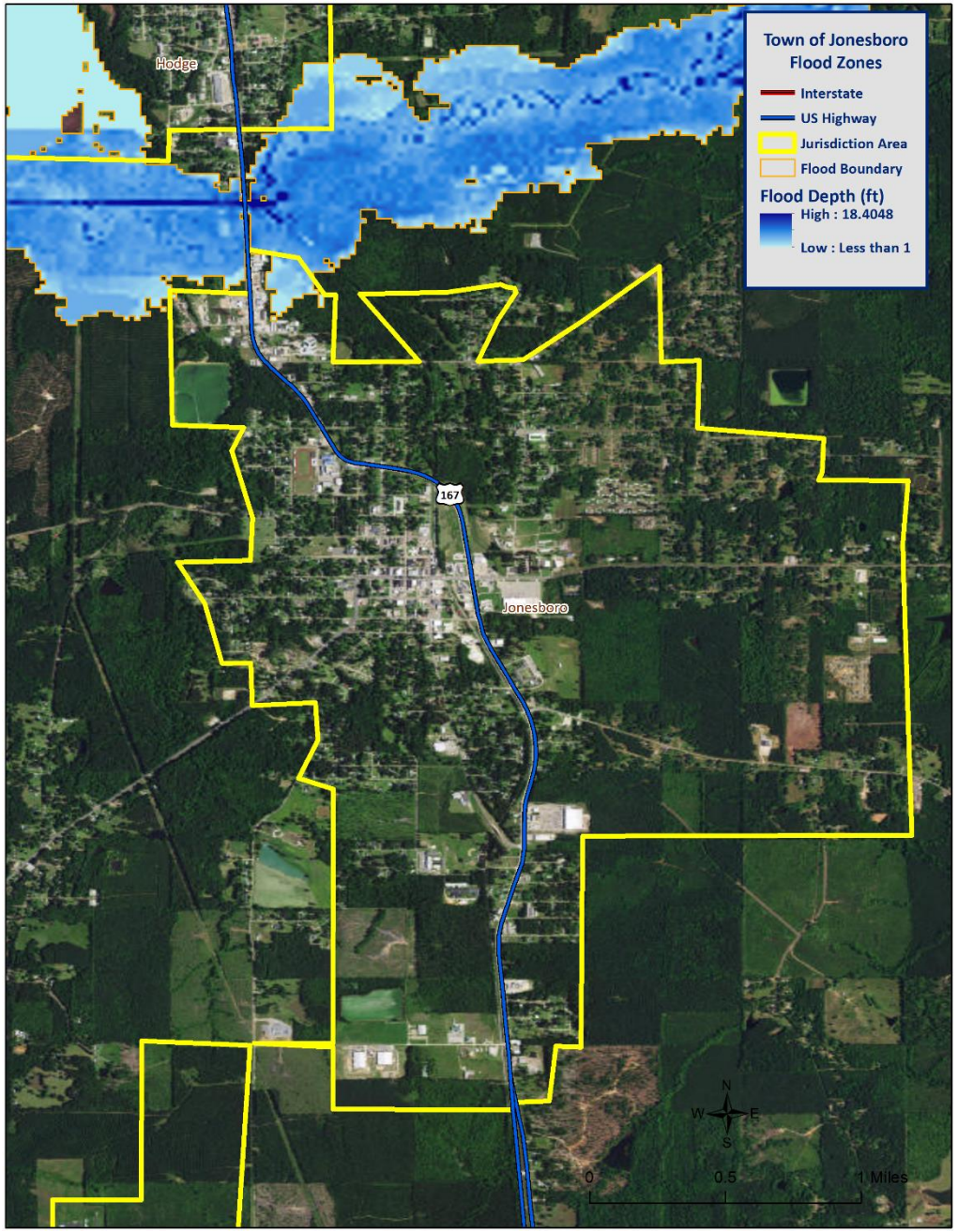


Town of Eros

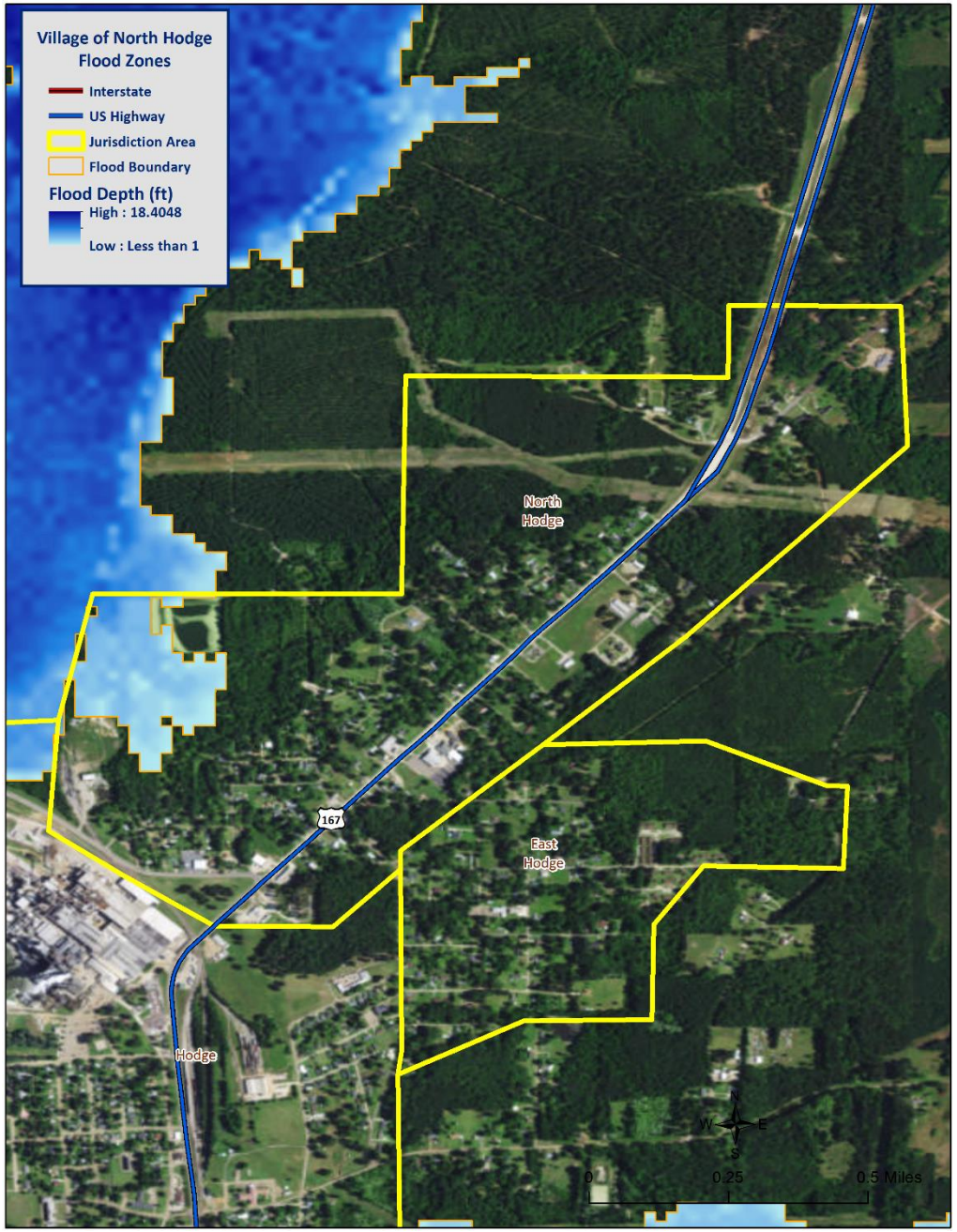


Village of Hodge

Flood Zone Classifications



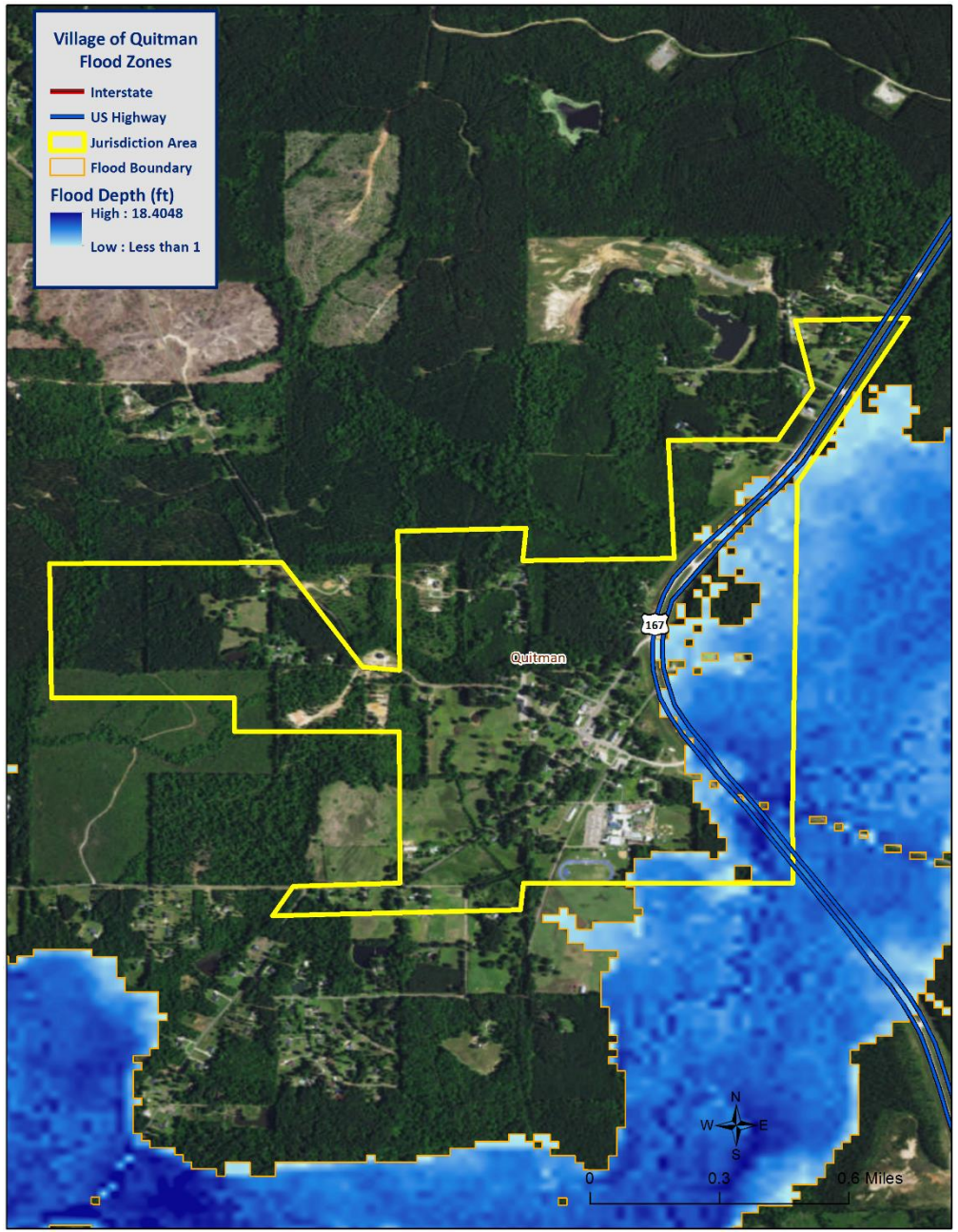
Town of Jonesboro



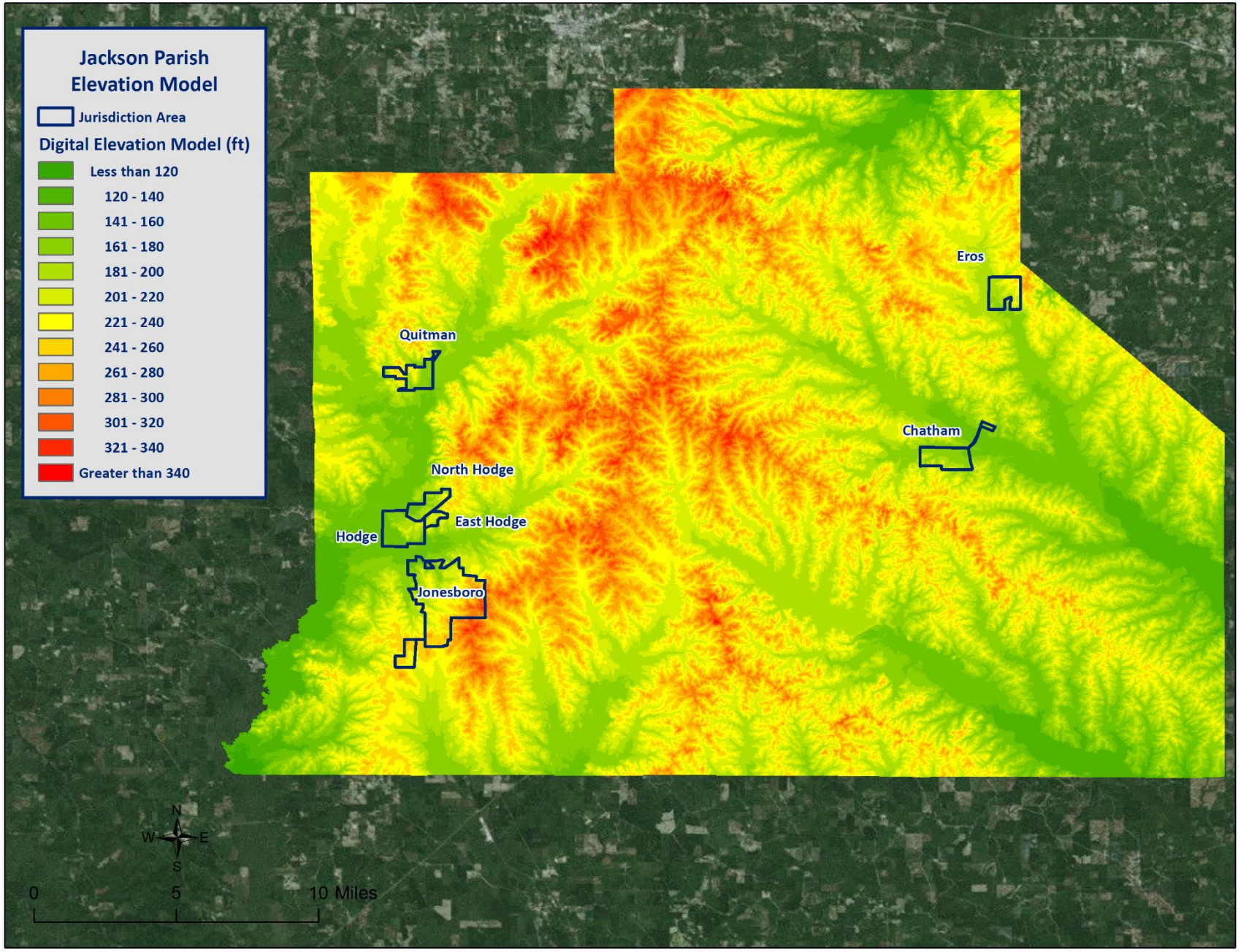
Village of North Hodge

Flood Zone Classifications

Village of Quitman



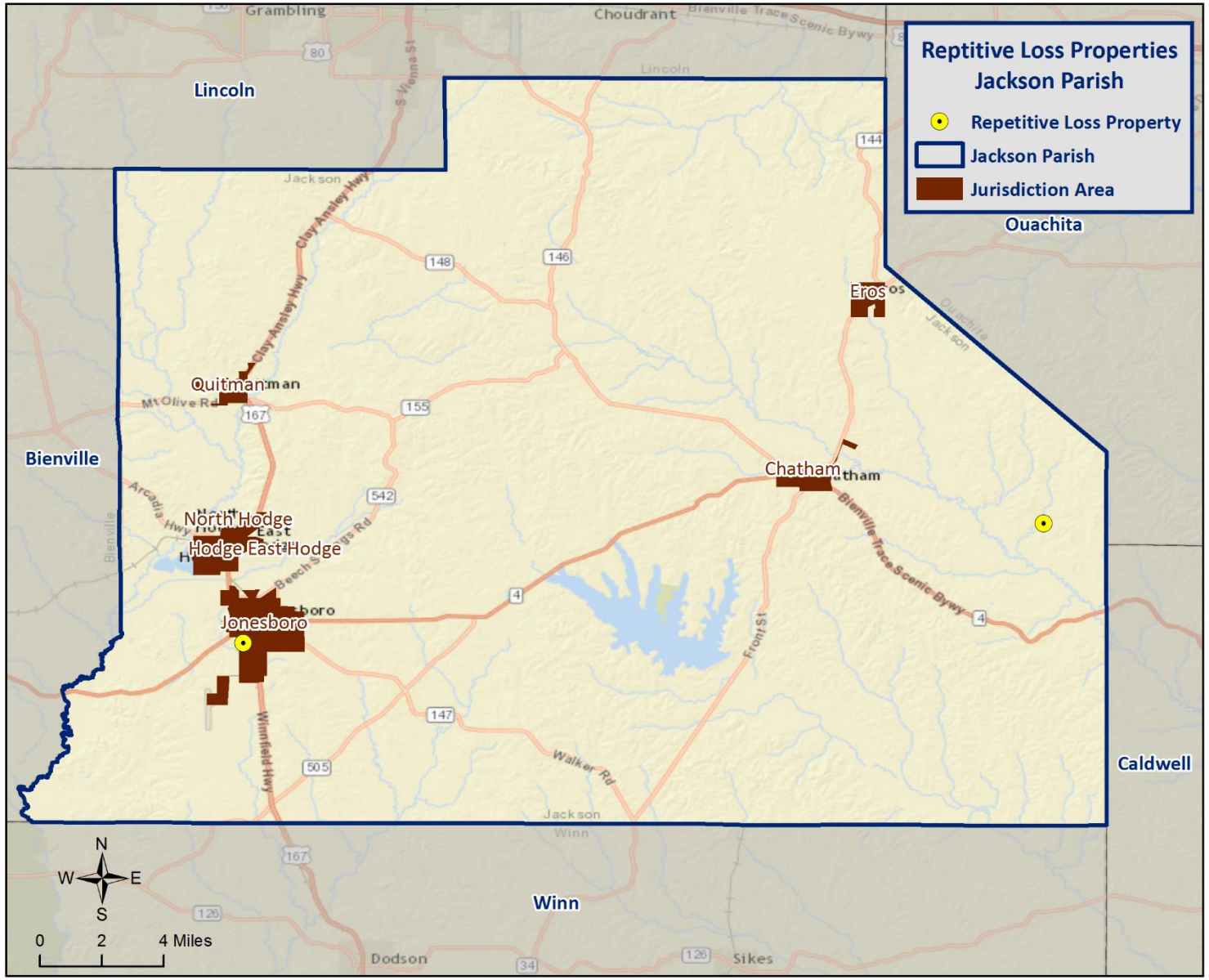
Flooding Elevation Model



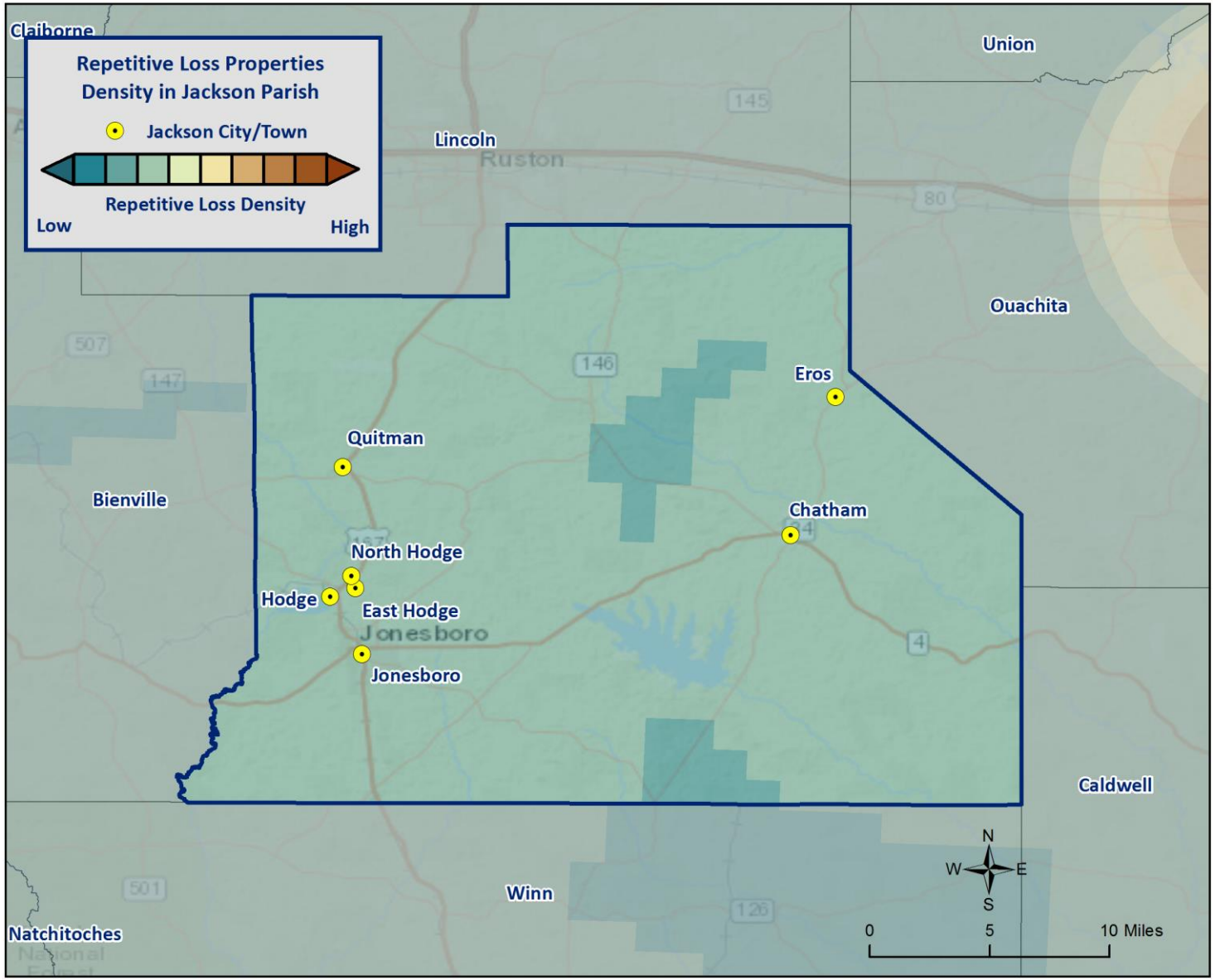
Repetitive Flooding

- 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 Density Model



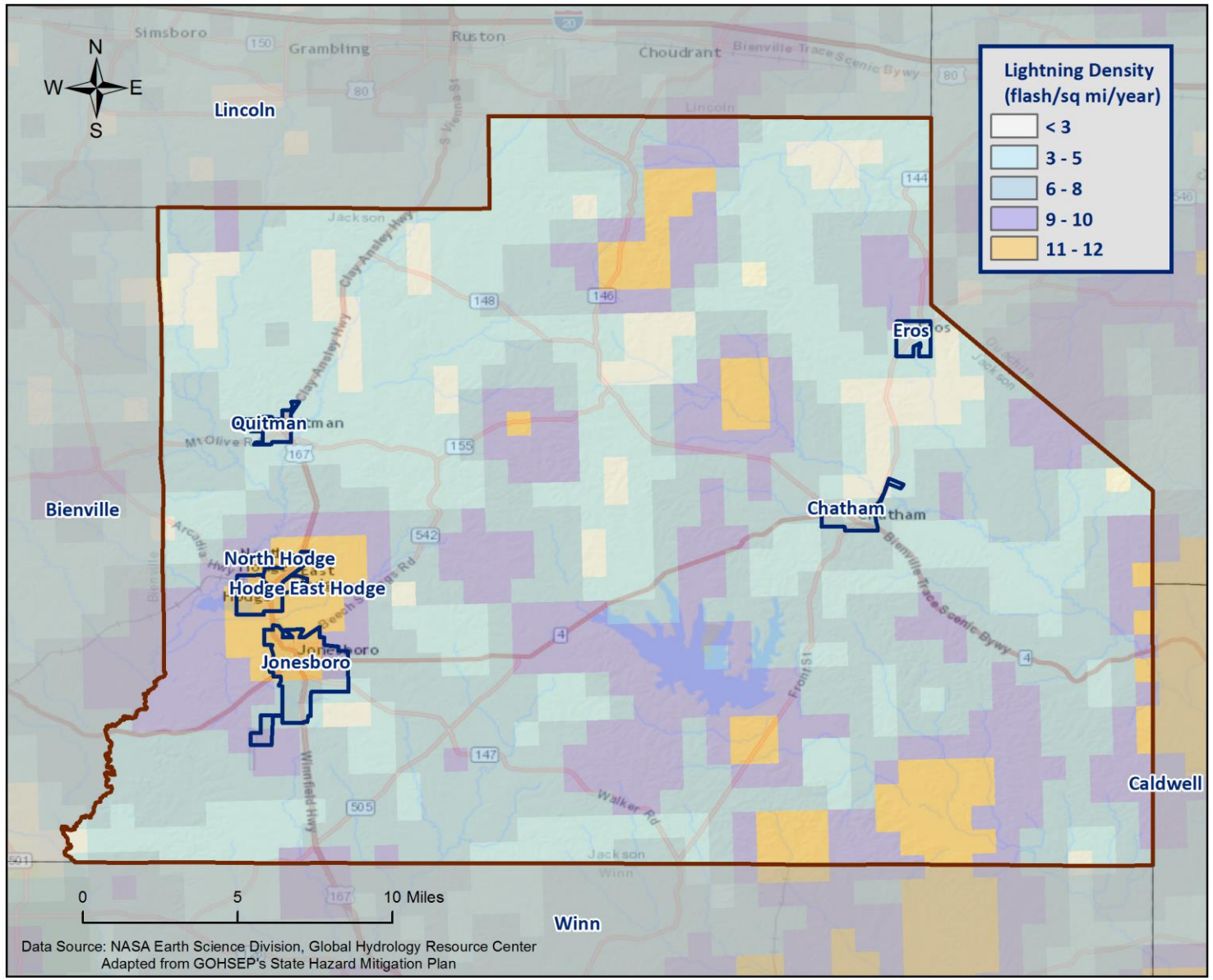
Thunderstorms – Lightning/High Wind/Hail

- 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.

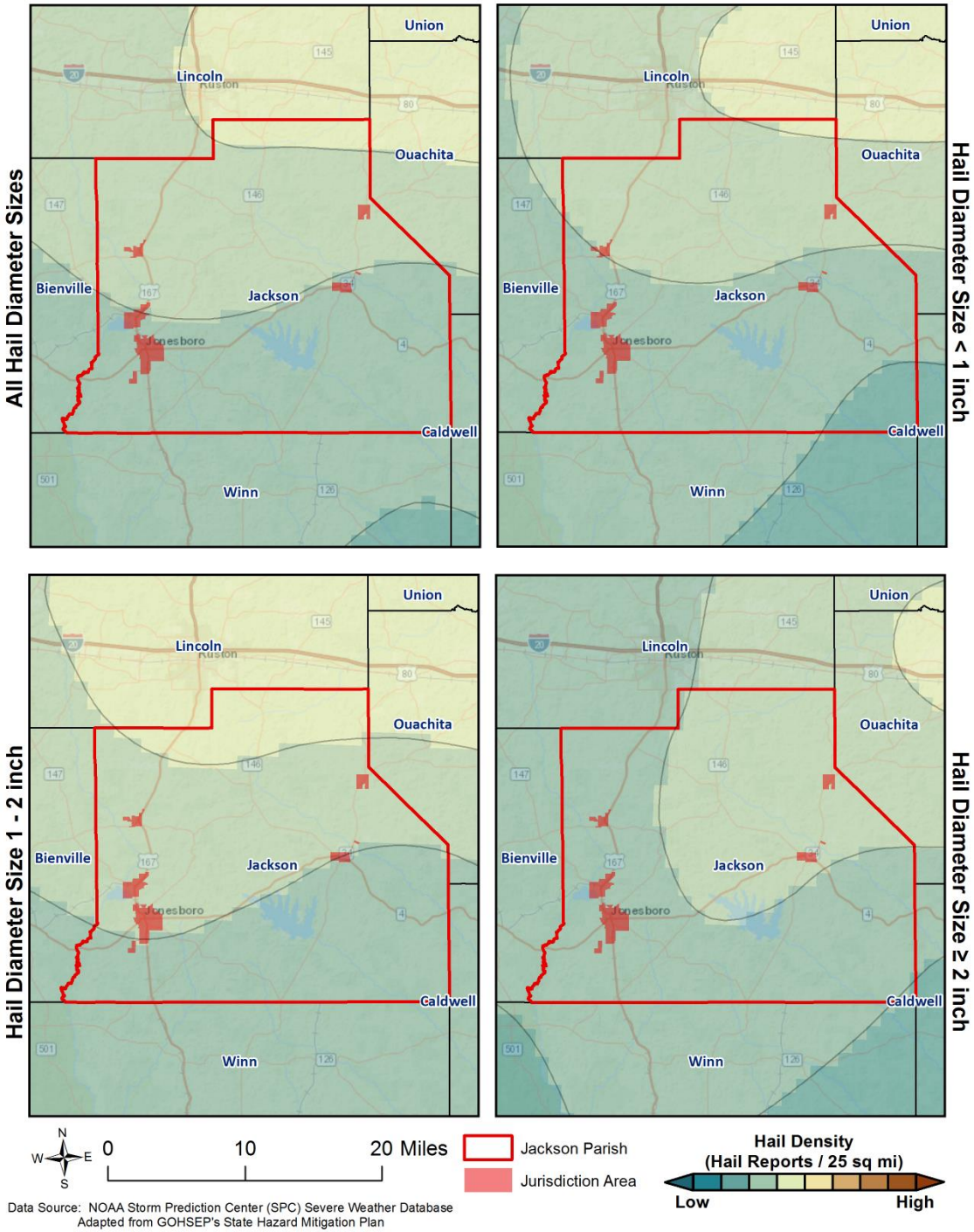
- They are usually accompanied by strong winds, heavy rain, and sometimes snow, sleet, or hail.

- 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.

Lightning Density Model



Hail Density Models



Tornadoes

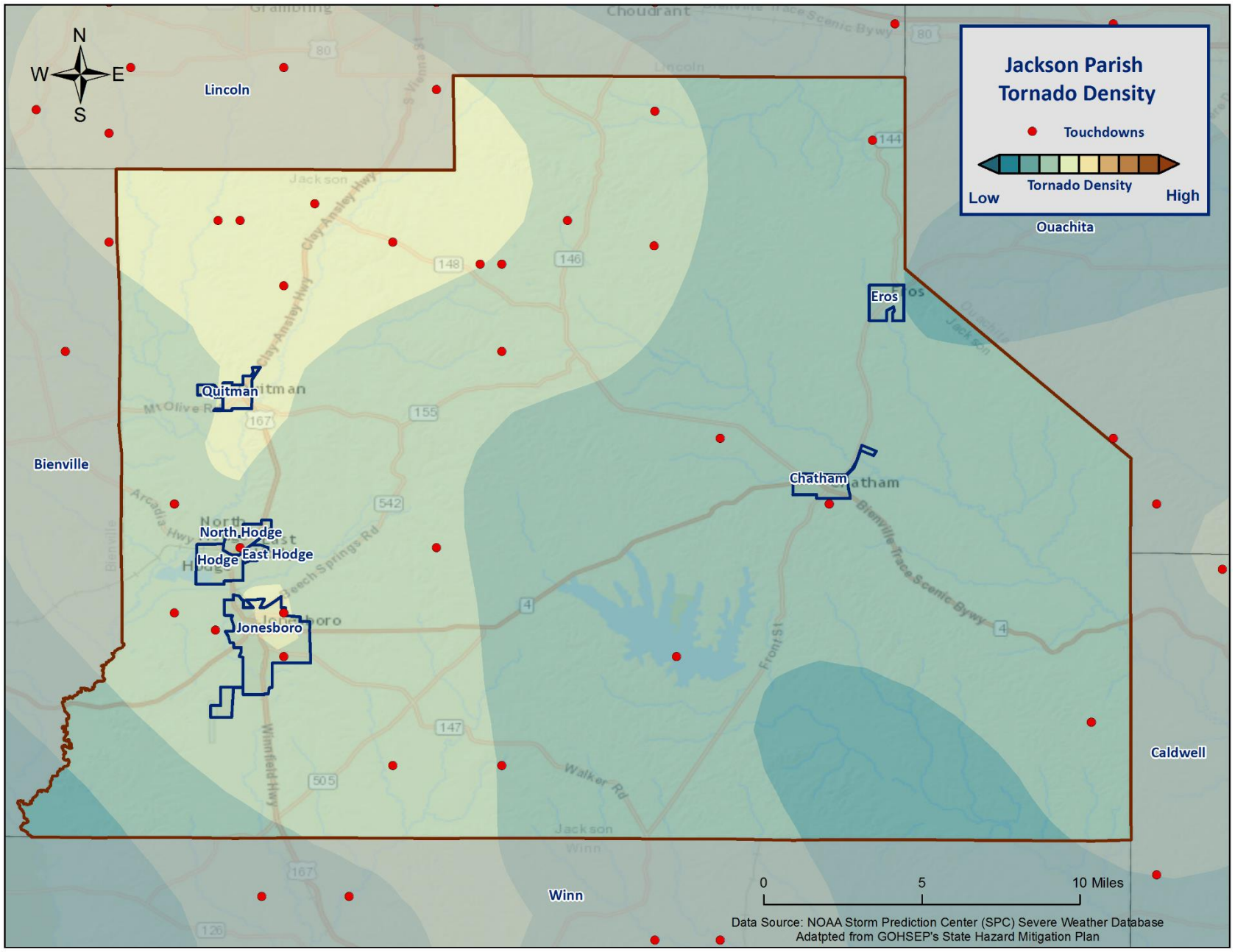
- Tornadoes (also called twisters and cyclones) are rapidly rotating funnels of wind extending between storm clouds and the ground.
- Tornadoes are the most severe storms for their size, and 70% of the world's reported tornadoes occur within the continental United States.

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

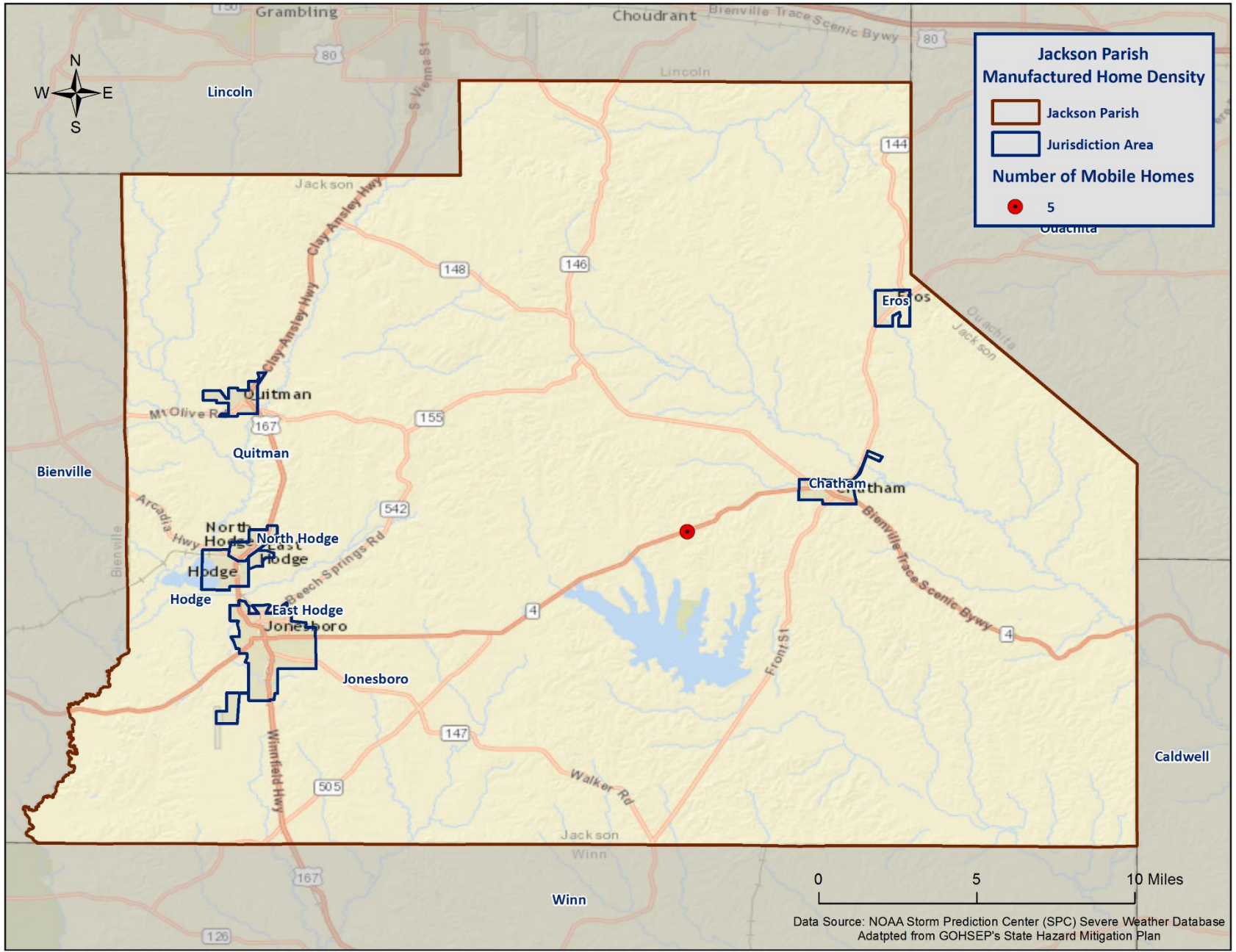


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Tornado Density



Manufactured Home Density



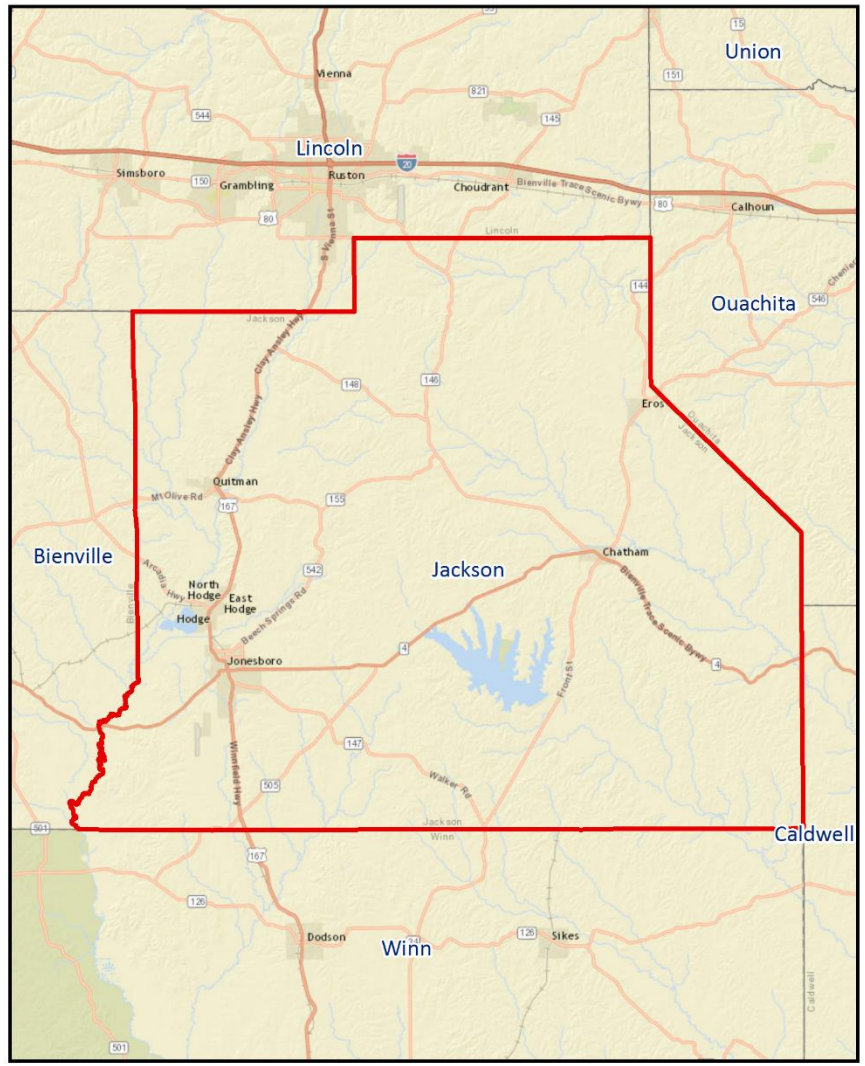
Tropical Cyclones

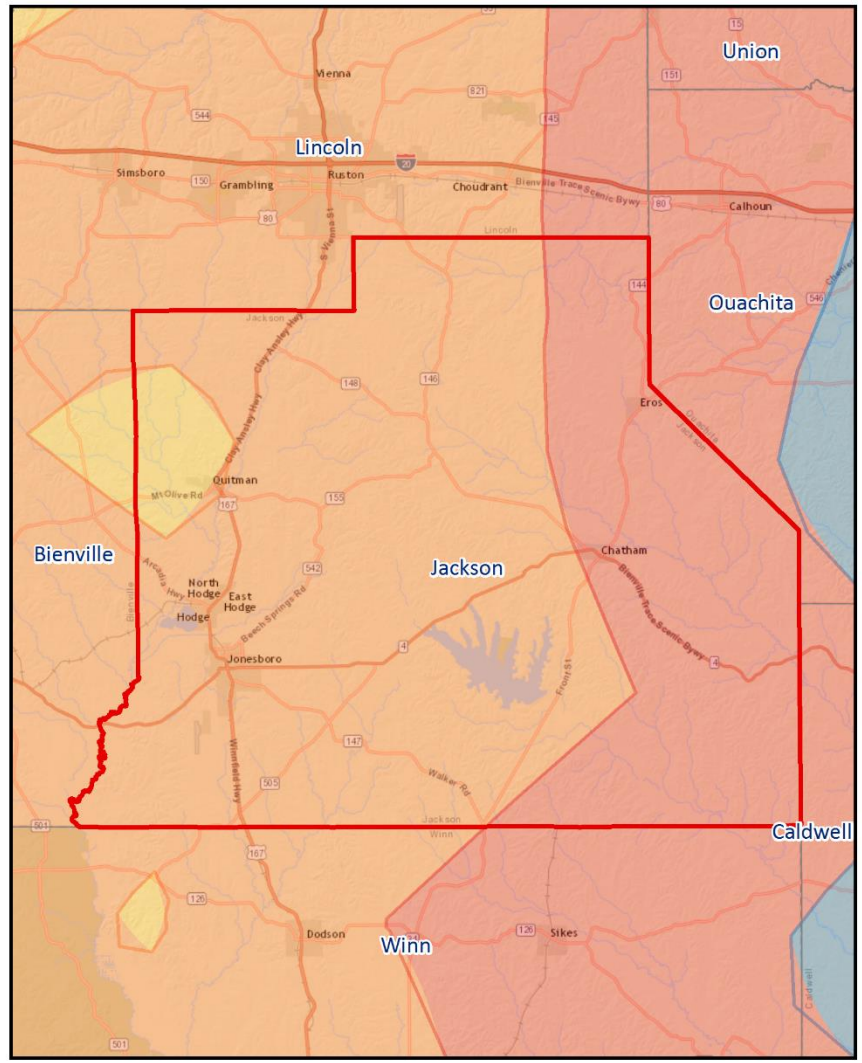
- Tropical cyclones are defined spinning, low-pressure air masses that draw surface air into their centers and attain strength ranging from weak tropical waves to the most intense hurricanes

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.



Hurricane Gustav (2008)





Wind Speed (Saffir-Simpson Scale)

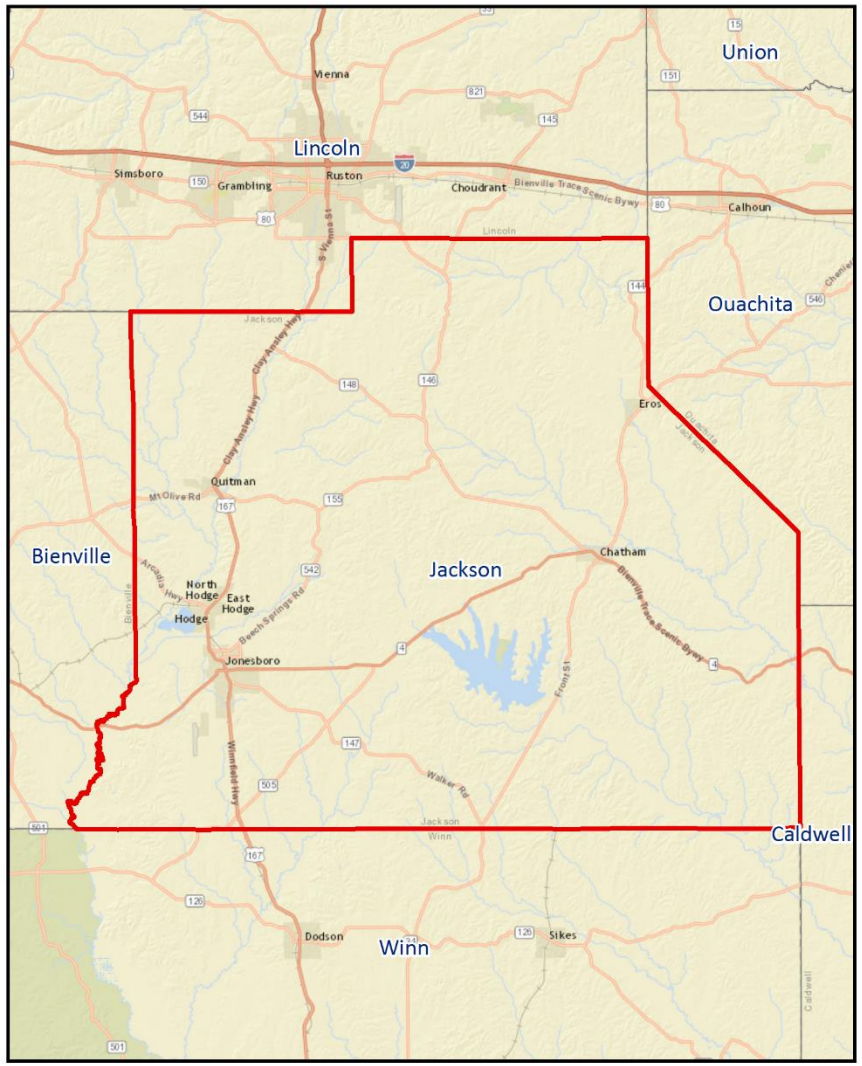
- Tropical Storm (39 - 73 mph)
- Hurricane (74 - 110 mph)
- Major Hurricane (> 110 mph)

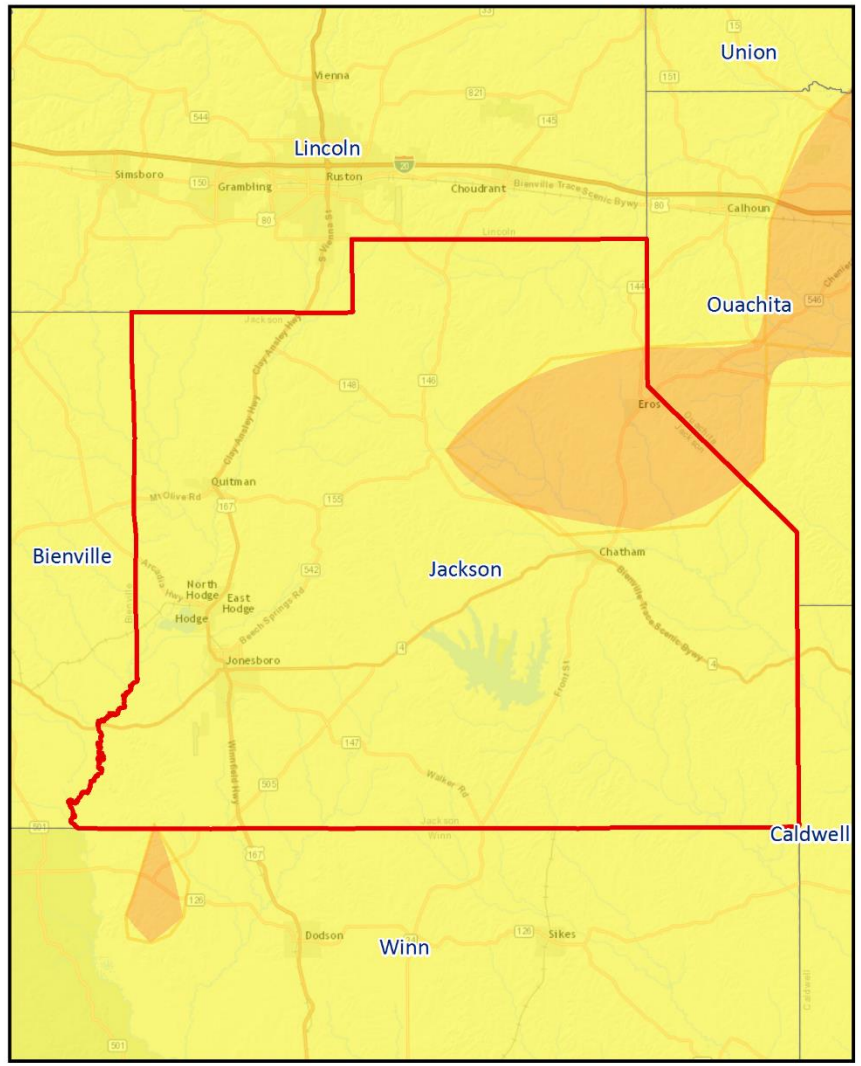
Total Precipitation (inches)

1 3 5 7 10 15 20

Data Source: NOAA Hurricane Research Division (HRD)
Adapted from GOHSEP's State Hazard Mitigation Plan

Hurricane Ike (2008)





Wind Speed (Saffir-Simpson Scale)

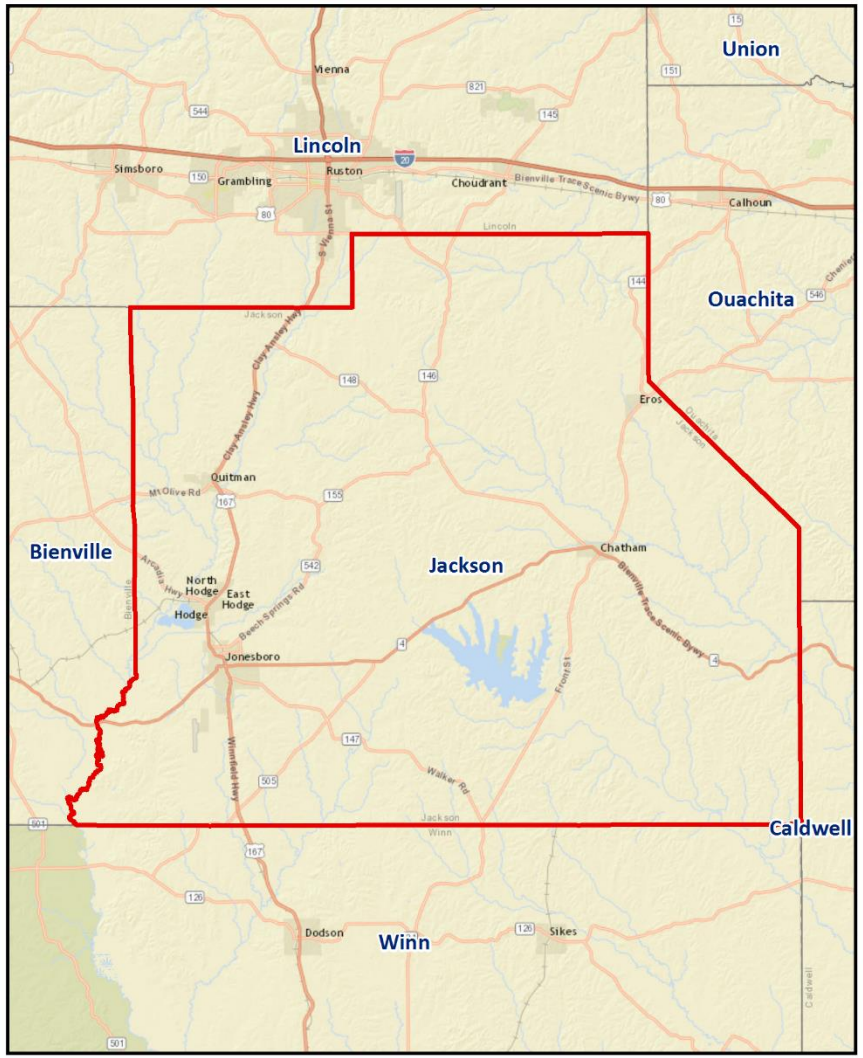
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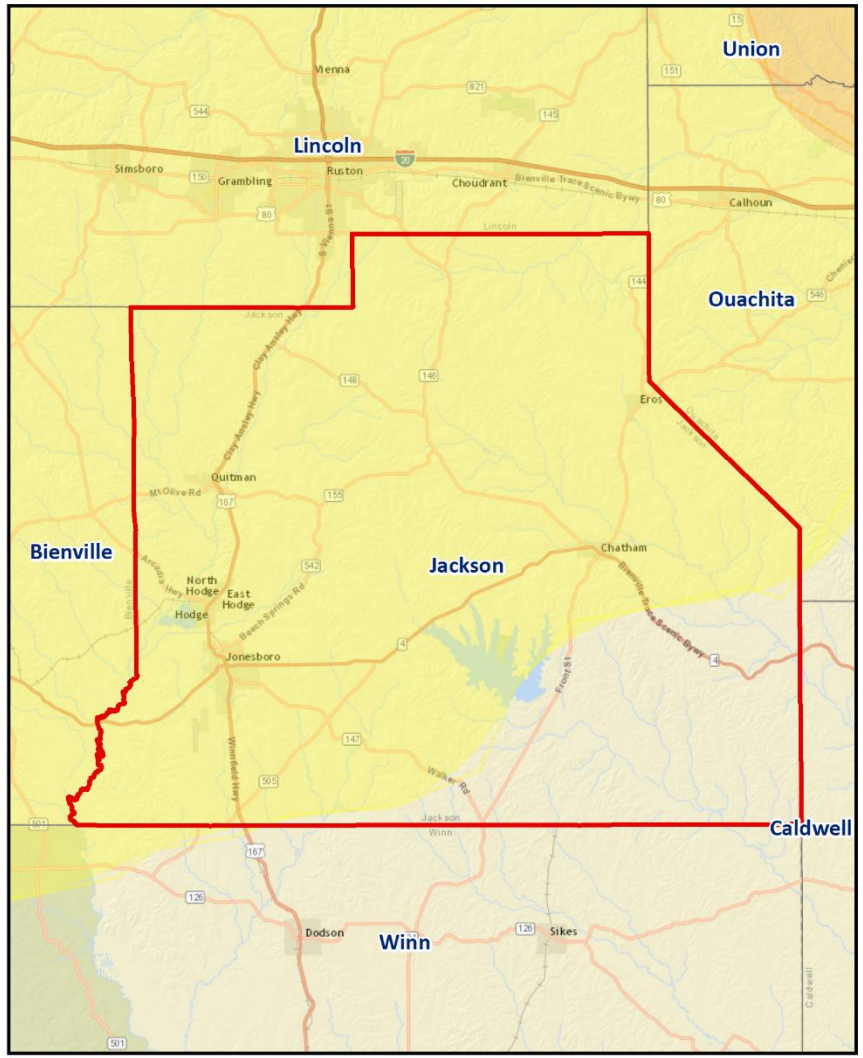
Total Precipitation (inches)

1 3 5 7 10 15 20

Data Source: NOAA Hurricane Research Division (HRD)
Adapted from GOHSEP's State Hazard Mitigation Plan

Hurricane Isaac (2012)





Wind Speed (Saffir-Simpson Scale)

Tropical Storm (39 - 73 mph)

Hurricane (74 - 110 mph)

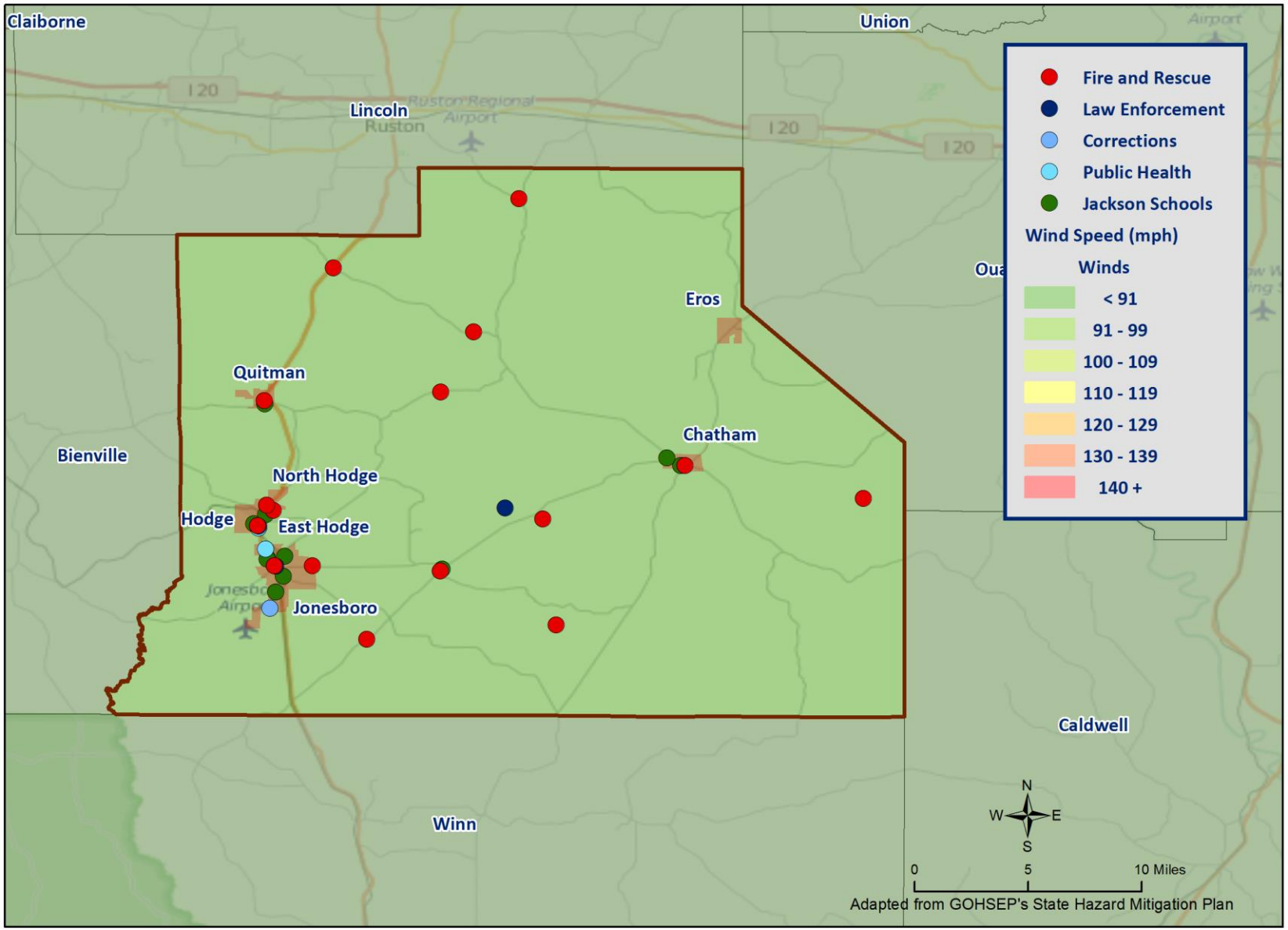
Major Hurricane (> 110 mph)

Total Precipitation (inches)

1 3 5 7 10 15 20

Data Source: NOAA Hurricane Research Division (HRD)
Adapted from GOHSEP's State Hazard Mitigation Plan

Critical Facilities – Wind Speeds



Mitigation Strategy – Parish Goals

- Improve education and outreach efforts, specifically to the public, parish/municipal employees, and local businesses, regarding potential impacts of hazards and the identification of specific measures that can be taken to reduce their impact
- Improve data collection, use, and sharing, specifically with neighboring communities, among municipalities, and with the State, to reduce the impact of hazards
- Improve capabilities, coordination, and opportunities at municipal and parish levels to plan and implement hazard mitigation projects, programs, and activities, especially through the use of GIS, coordination with universities, and public/private partnerships
- Pursue opportunities to mitigate repetitive and severe repetitive loss properties and other appropriate hazard mitigation projects, programs, and activities, with a focus on existing structures, future structures, protection of existing infrastructure, and protection of future infrastructure

Contact Us

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Stephenson Disaster Management Institute

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