Allen Parish Hazard Mitigation Plan Update Public Meeting

September 27, 2023

Oberlin, LA

LSU | Stephenson Disaster Management Institute

Introductions

- **Allen Parish OHSEP Director/Parish Staff**
- **Stephenson Disaster Management Institute (SDMI) at LSU**
  - Chris Rippetoe – Hazard Mitigation Program Manager
  - Jason Martin – Emergency Management Analyst
- **Governor's Office of Homeland Security and Emergency Preparedness**
  - Jeffrey Giering – State Hazard Mitigation Officer
  - Marion Pearson – Hazard Mitigation Planner

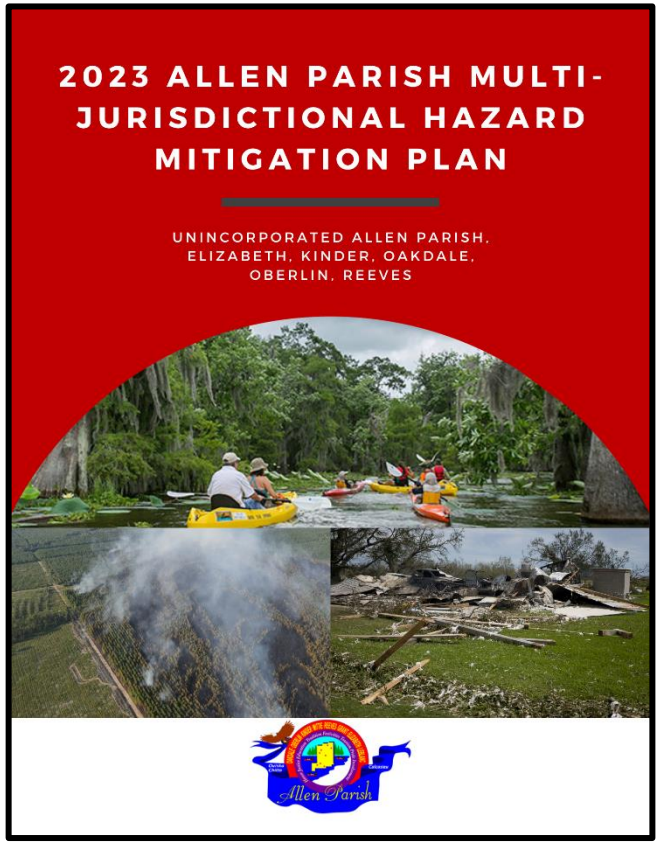
Allen Parish

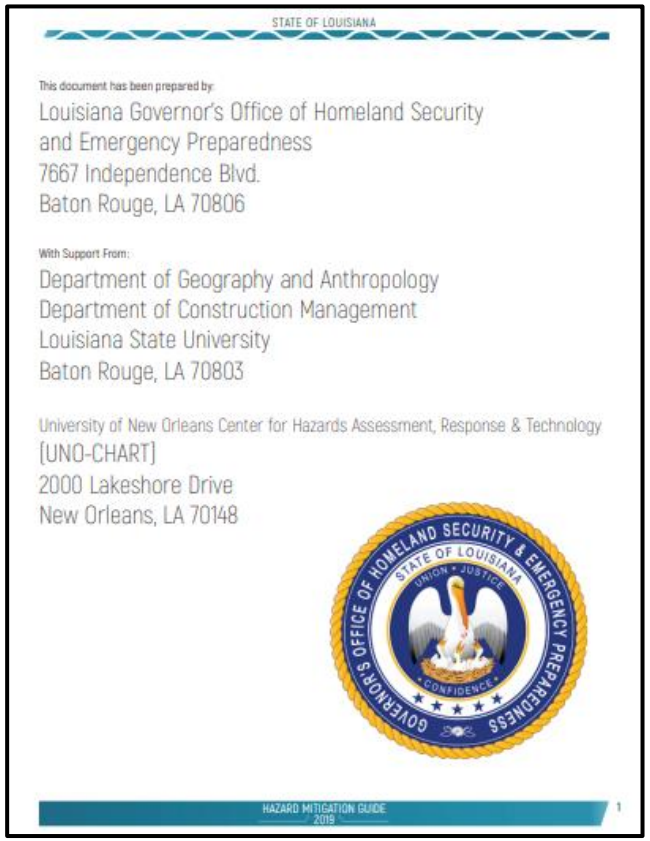
LSU | Stephenson Disaster Management Institute

Agenda

- Introductions
- Hazard Mitigation Overview
- Planning Process
- Risk Assessment
- Maps
- Public Outreach Activities

Why We're Here





Allen Parish

LSU | Stephenson Disaster Management Institute

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;
- Minimize operational downtime and accelerate recovery of government and the private sector after an event;
- ***Implementation of mitigation actions leads to building stronger, safer and smarter!***

Allen Parish

LSU | Stephenson Disaster Management Institute

Why the Plan is Required

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

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

Allen Parish

LSU | Stephenson Disaster Management Institute

Planning Process to Date

Initial Planning Meeting with OHSEP

Full Planning Committee Meeting

Risk Assessment Review with Planning Committee

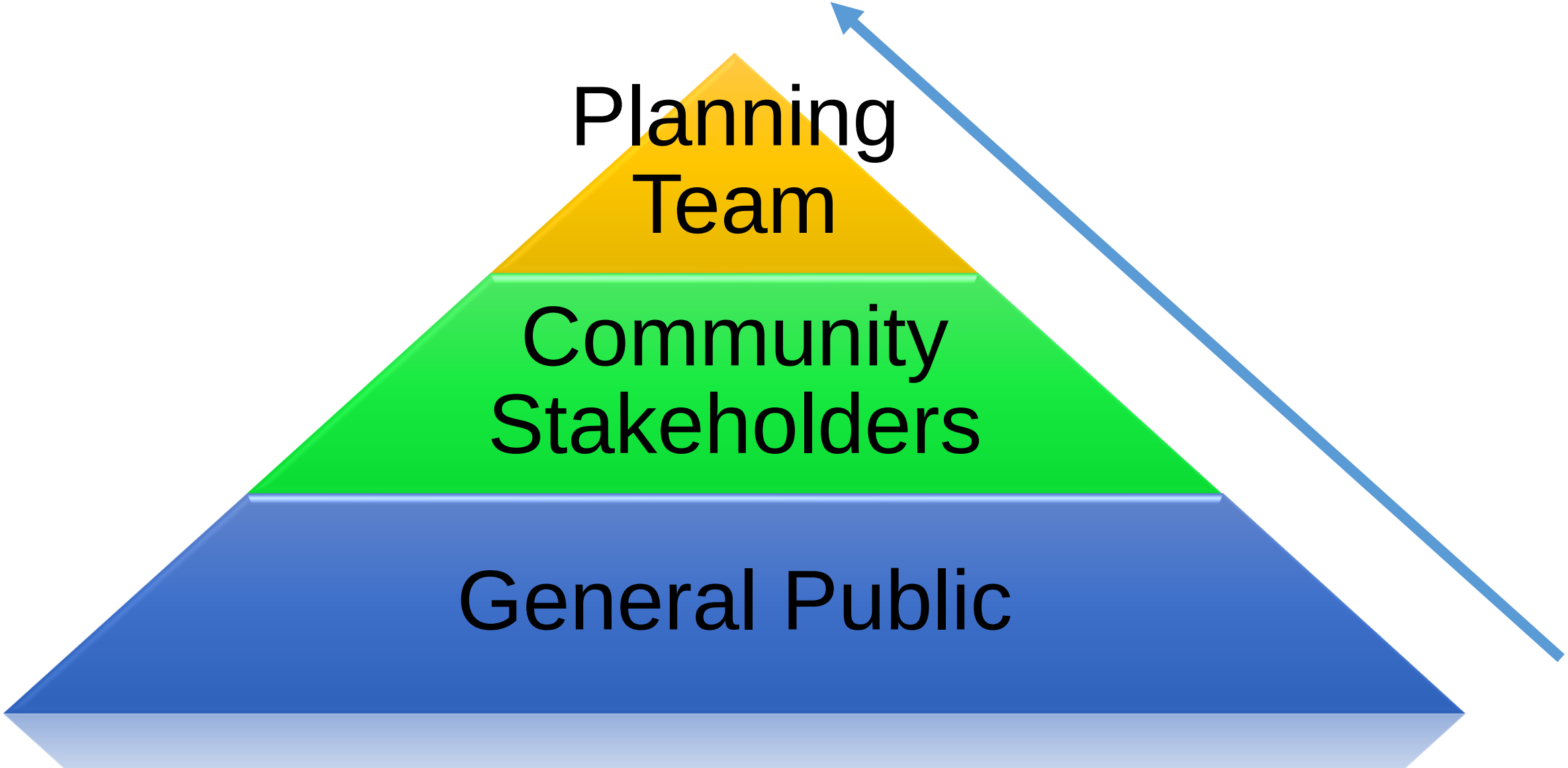
Public Meeting

Constant communication with Parish and Committee members!

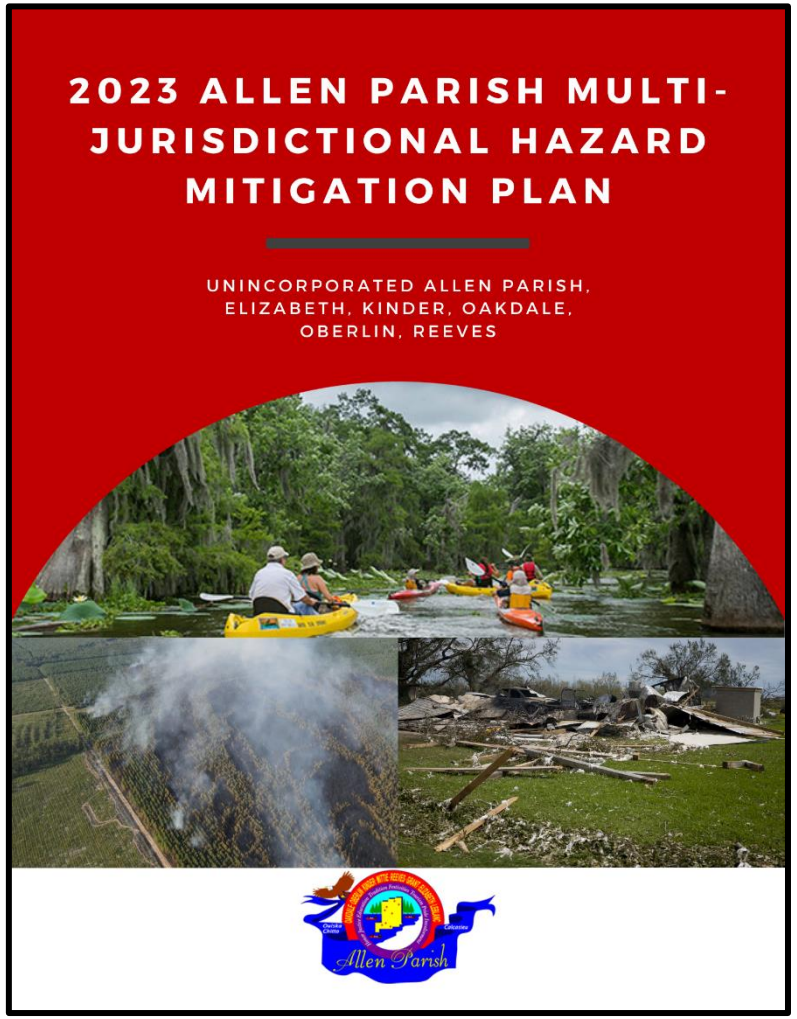
Allen Parish

LSU | Stephenson Disaster Management Institute

Collaborative Planning Approach



Hazard Mitigation Plan Development



Allen Parish

LSU | Stephenson Disaster Management Institute

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

Allen Parish

LSU | Stephenson Disaster Management Institute

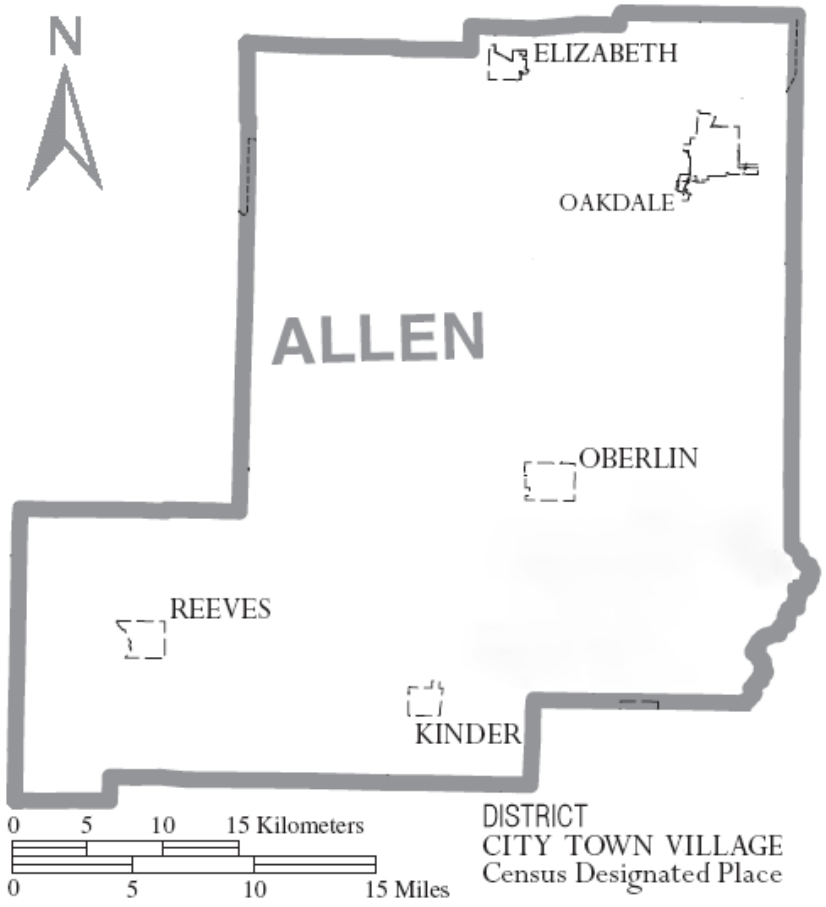
Plan Layout

- **Appendix A**: Planning Process
- **Appendix B**: Plan Maintenance
- **Appendix C**: Parish Critical 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 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

Allen Parish

LSU | Stephenson Disaster Management Institute

Hazard Identification And Risk Assessment

- Flooding
- Thunderstorms
- Tornadoes
- Tropical Cyclones
- Wildfires
- Winter Weather

Allen Parish

LSU | Stephenson Disaster Management Institute

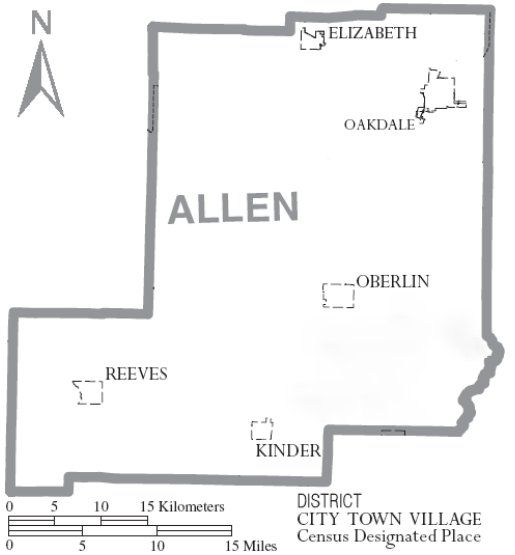
Risk Matrix for Allen Parish

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
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	4	2	3	3	1	2.7
Tornadoes	3	3	2	4	3	3.2
Tropical Cyclones	3	4	4	1	4	3.3
Wildfires	1	3	4	1	2	2.25
Winter Weather	3	4	4	1	2	3

Risk Factor	PRI Range
High Risk	2.5 to 4.0
Moderate Risk	2.0 to 2.4
Low Risk	0 to 1.9

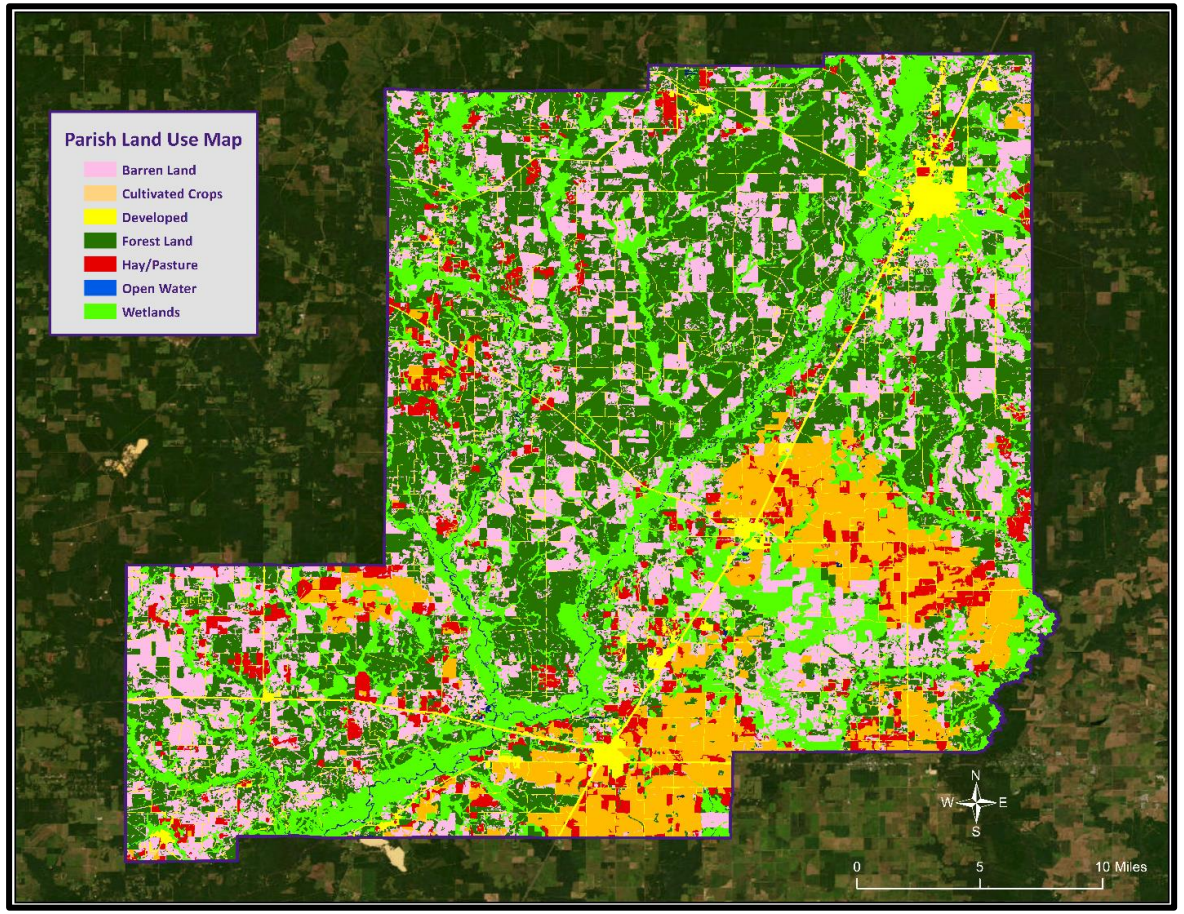
Allen Parish

LSU | Stephenson Disaster Management Institute



Risk Assessment Maps

Allen Parish Land Use

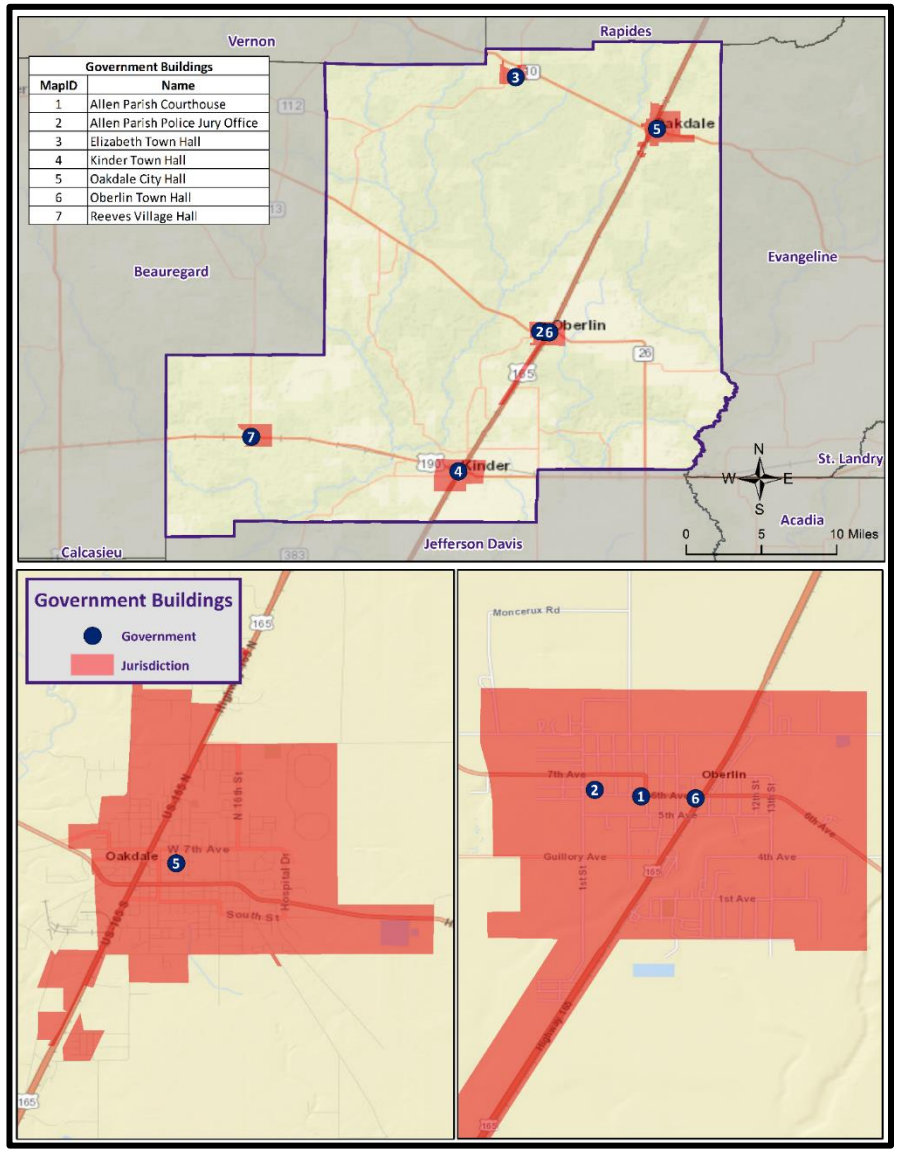


Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	190,183	39%
Wetlands	99,463	20%
Forest Land (Not including forested wetlands)	172,216	35%
Urban/Development	26,404	5%
Water	1,999	< 1%

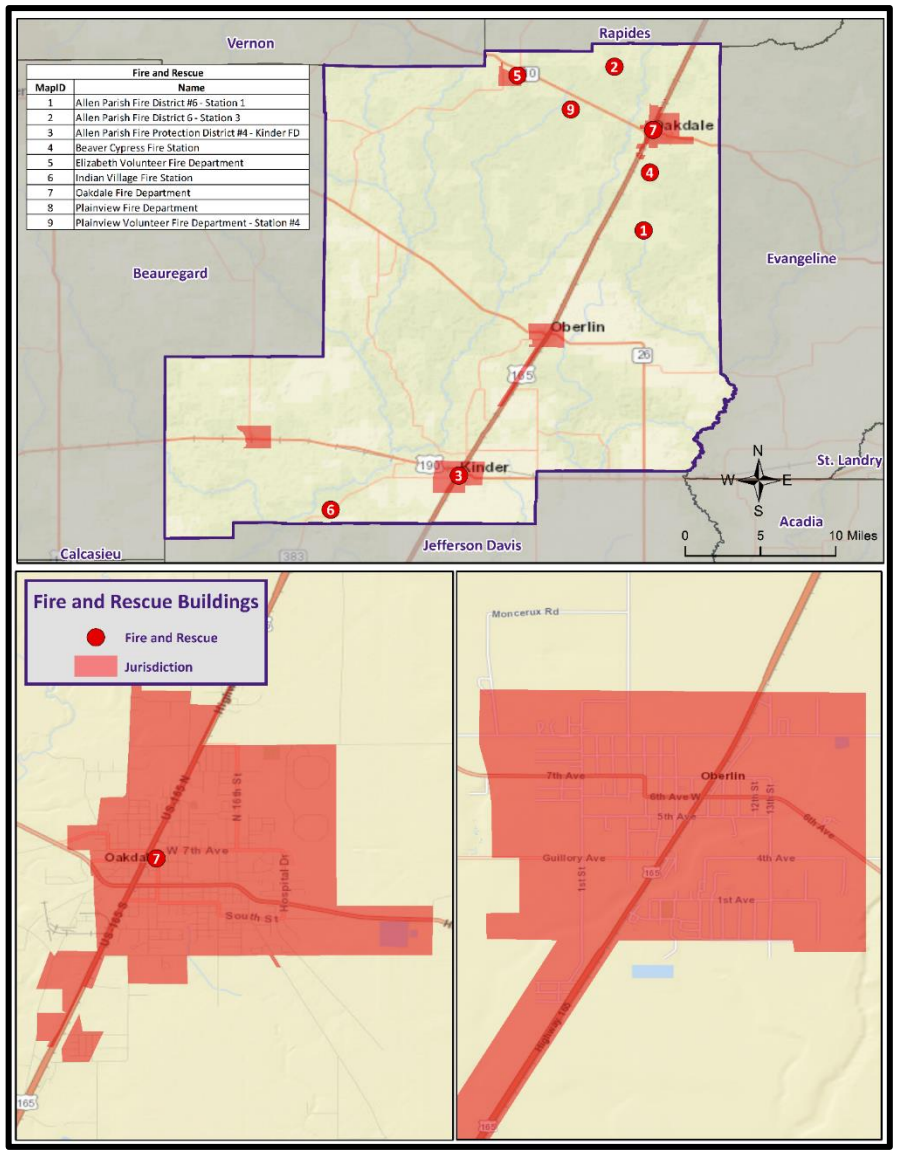
Allen Parish

LSU | Stephenson Disaster Management Institute

Allen Parish Critical Facilities

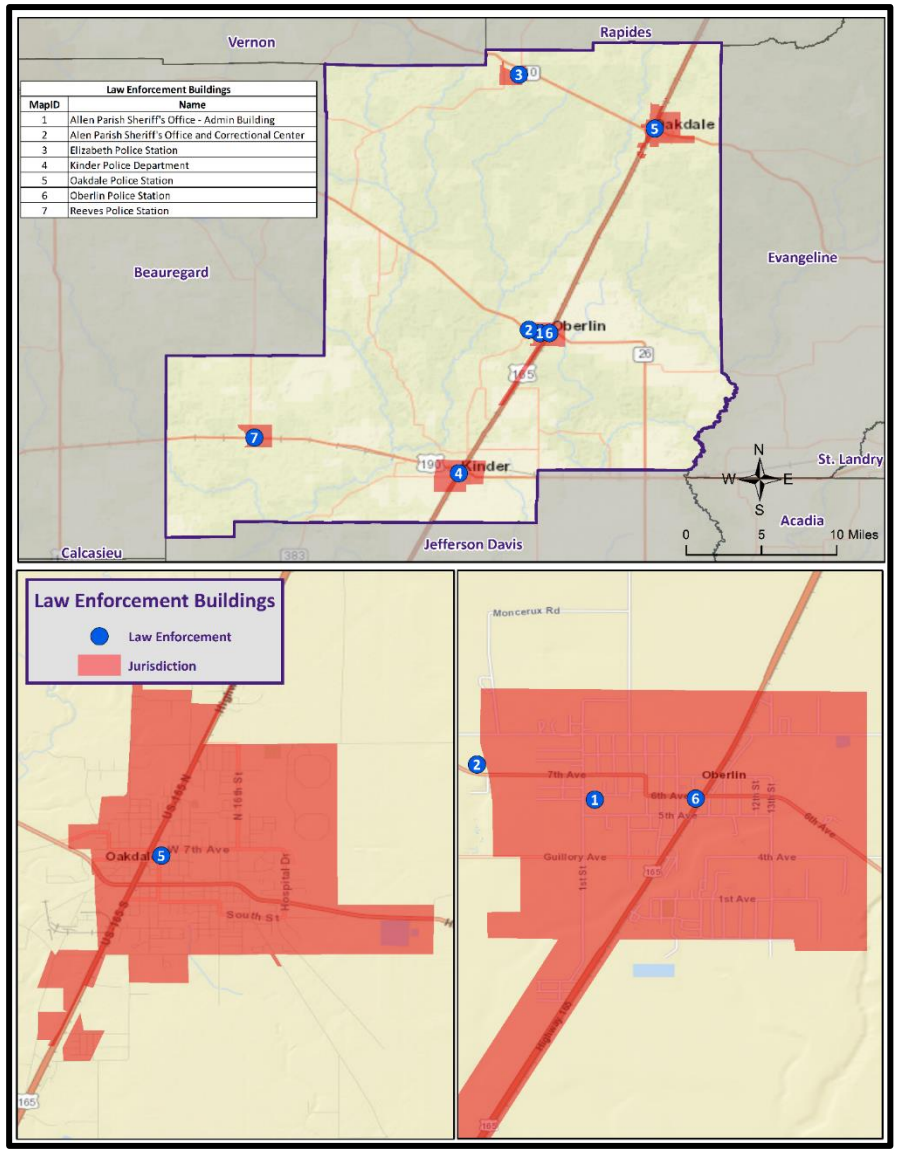


Civil Government



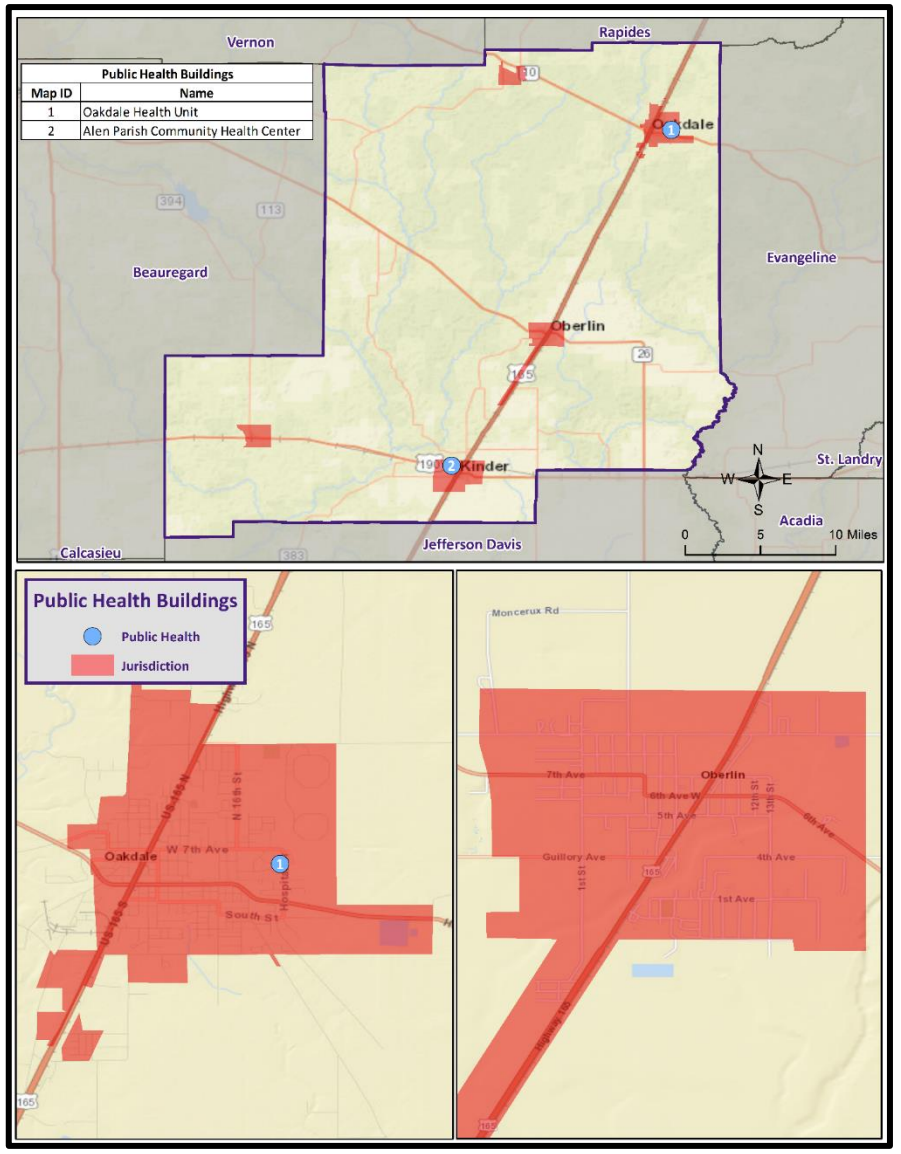
Fire & SAR

Allen Parish Critical Facilities



Law Enforcement Buildings	
MapID	Name
1	Allen Parish Sheriff's Office - Admin Building
2	Allen Parish Sheriff's Office and Correctional Center
3	Elizabeth Police Station
4	Kinder Police Department
5	Oakdale Police Station
6	Oberlin Police Station
7	Reeves Police Station

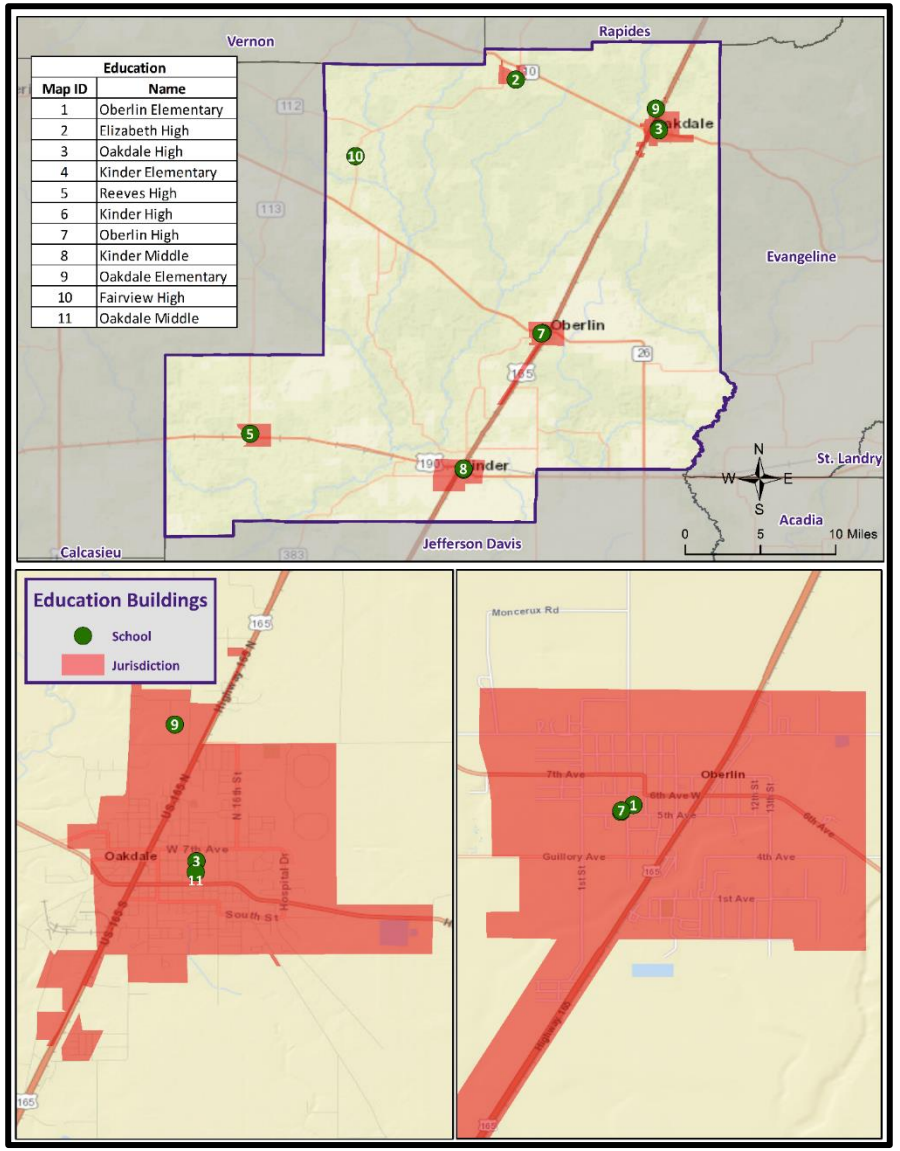
Law Enforcement



Public Health Buildings	
Map ID	Name
1	Oakdale Health Unit
2	Allen Parish Community Health Center

Public Health

Allen Parish Critical Facilities



Public Education

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

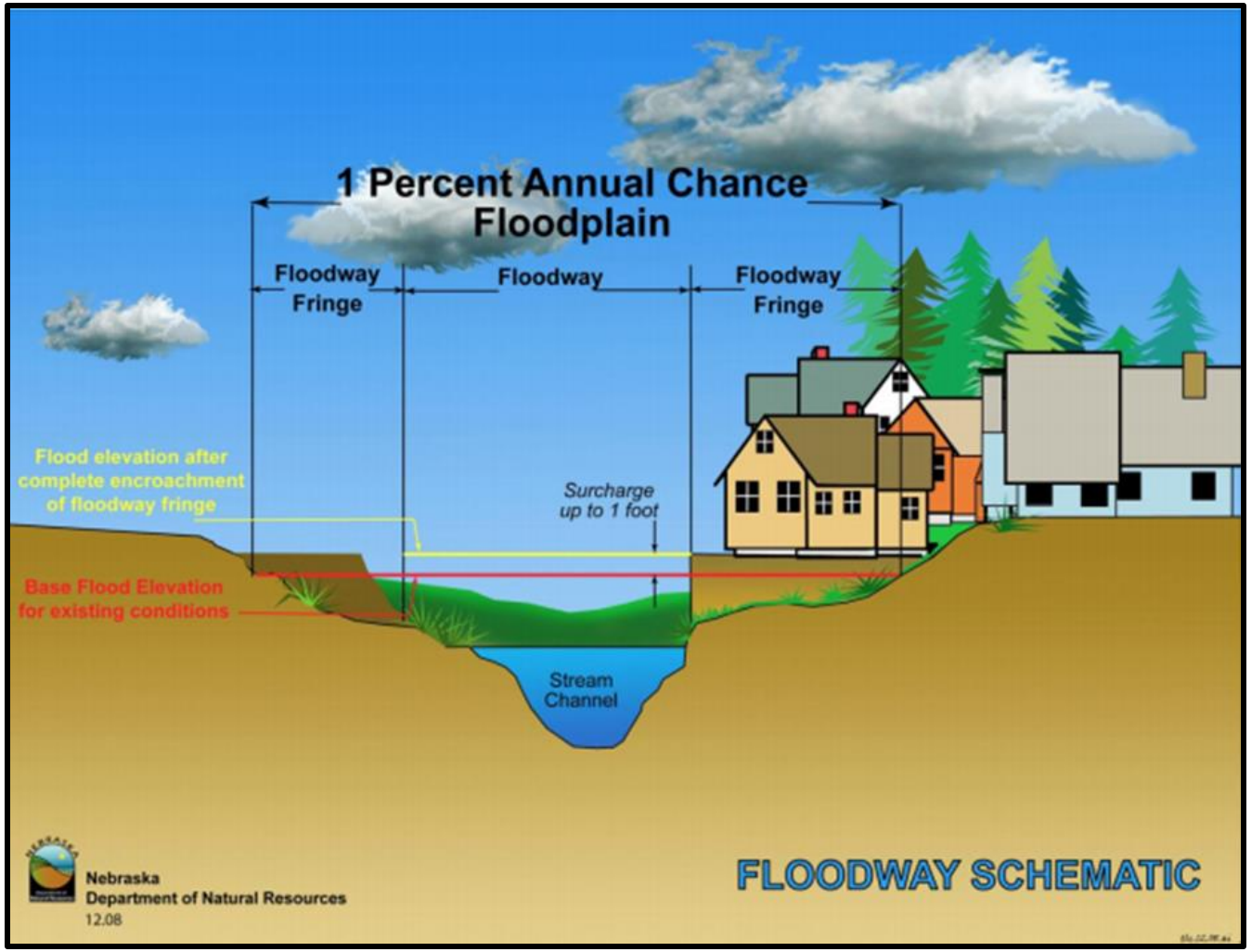
In Louisiana, six specific types of flooding are of main concern:

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

Allen Parish

LSU | Stephenson Disaster Management Institute

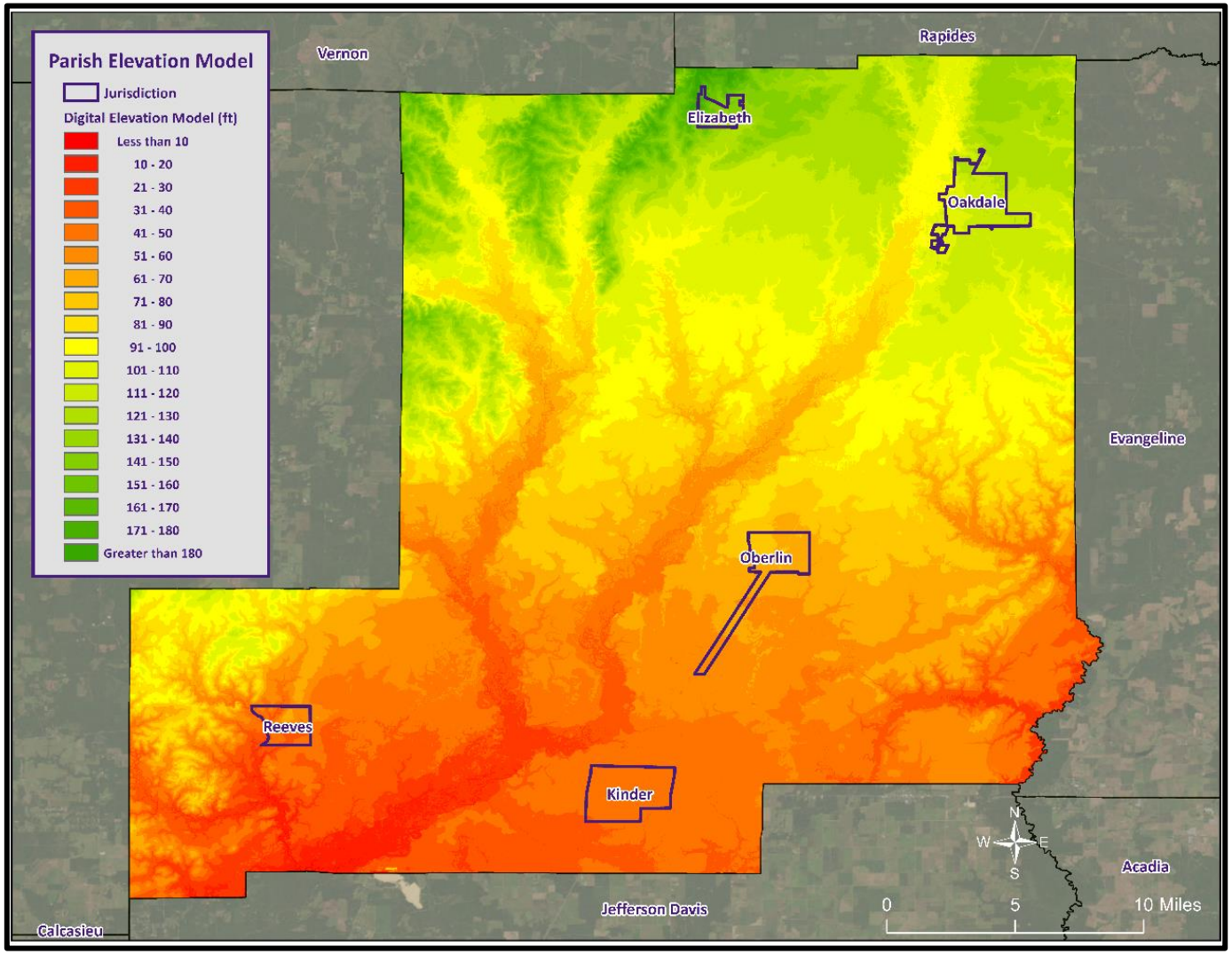
Floodway Diagram



Allen Parish

LSU | Stephenson Disaster Management Institute

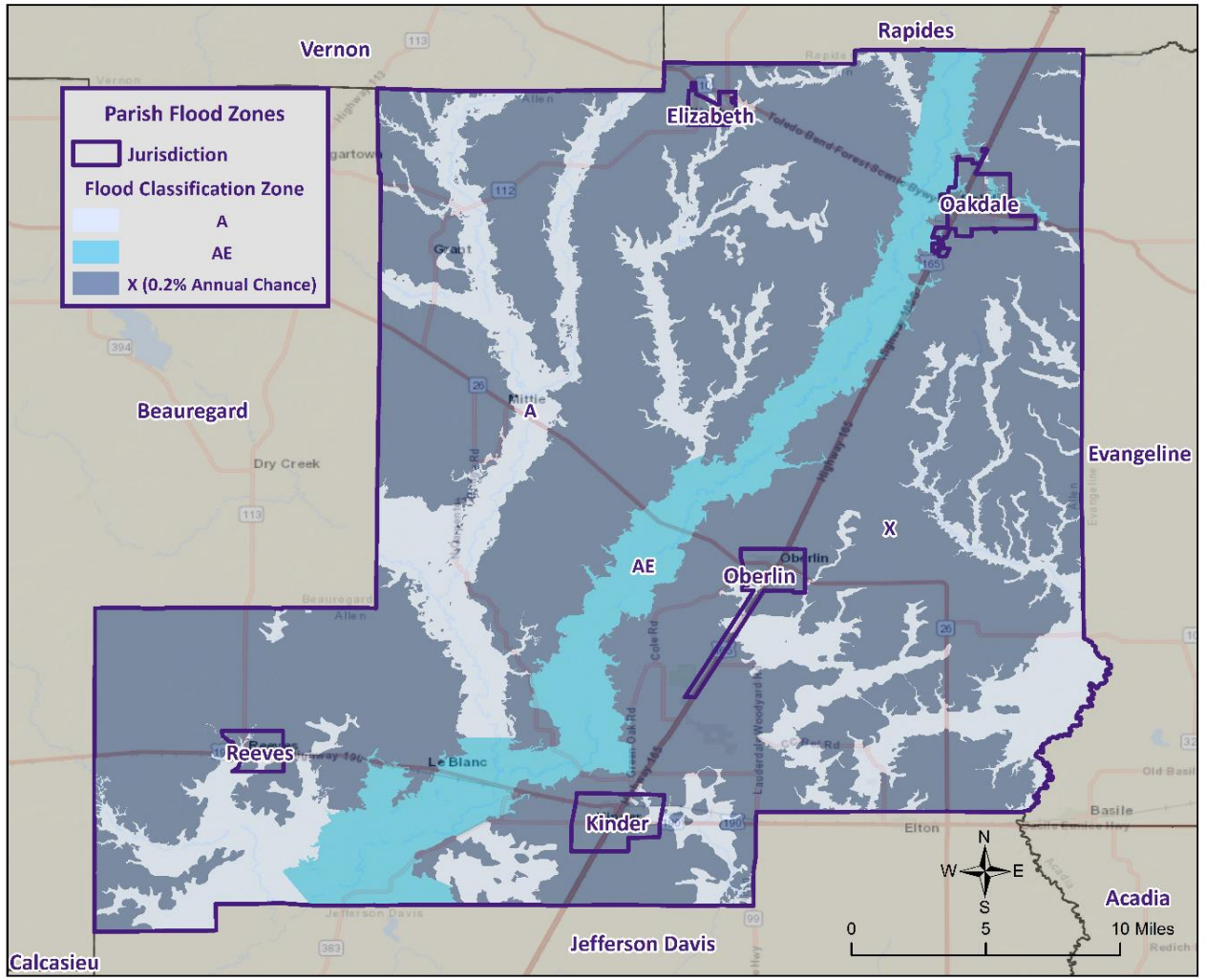
Digital Elevation Model



Allen Parish

LSU | Stephenson Disaster Management Institute

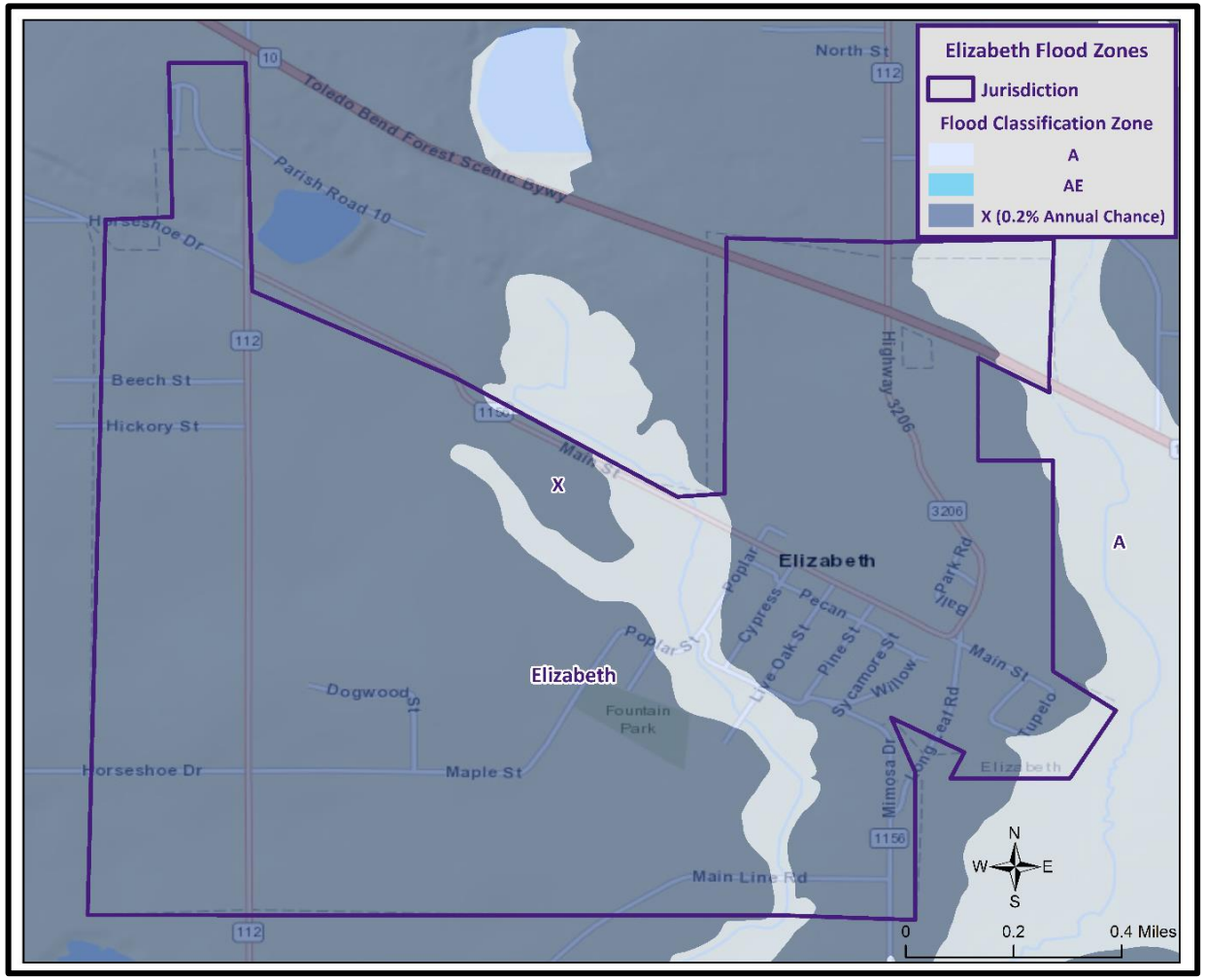
Allen Parish Flood Map



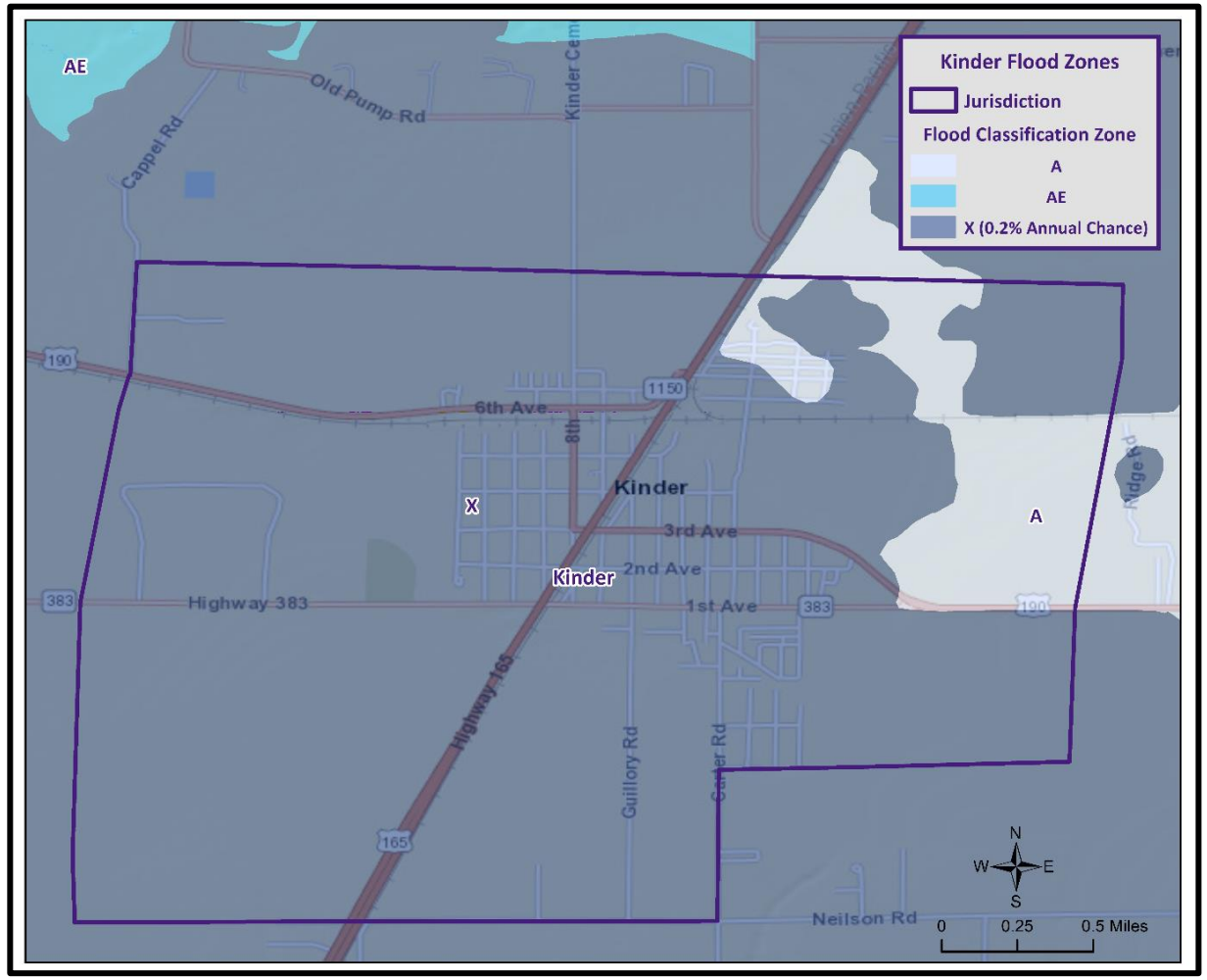
Allen Parish

LSU | Stephenson Disaster Management Institute

Municipal Flood Maps

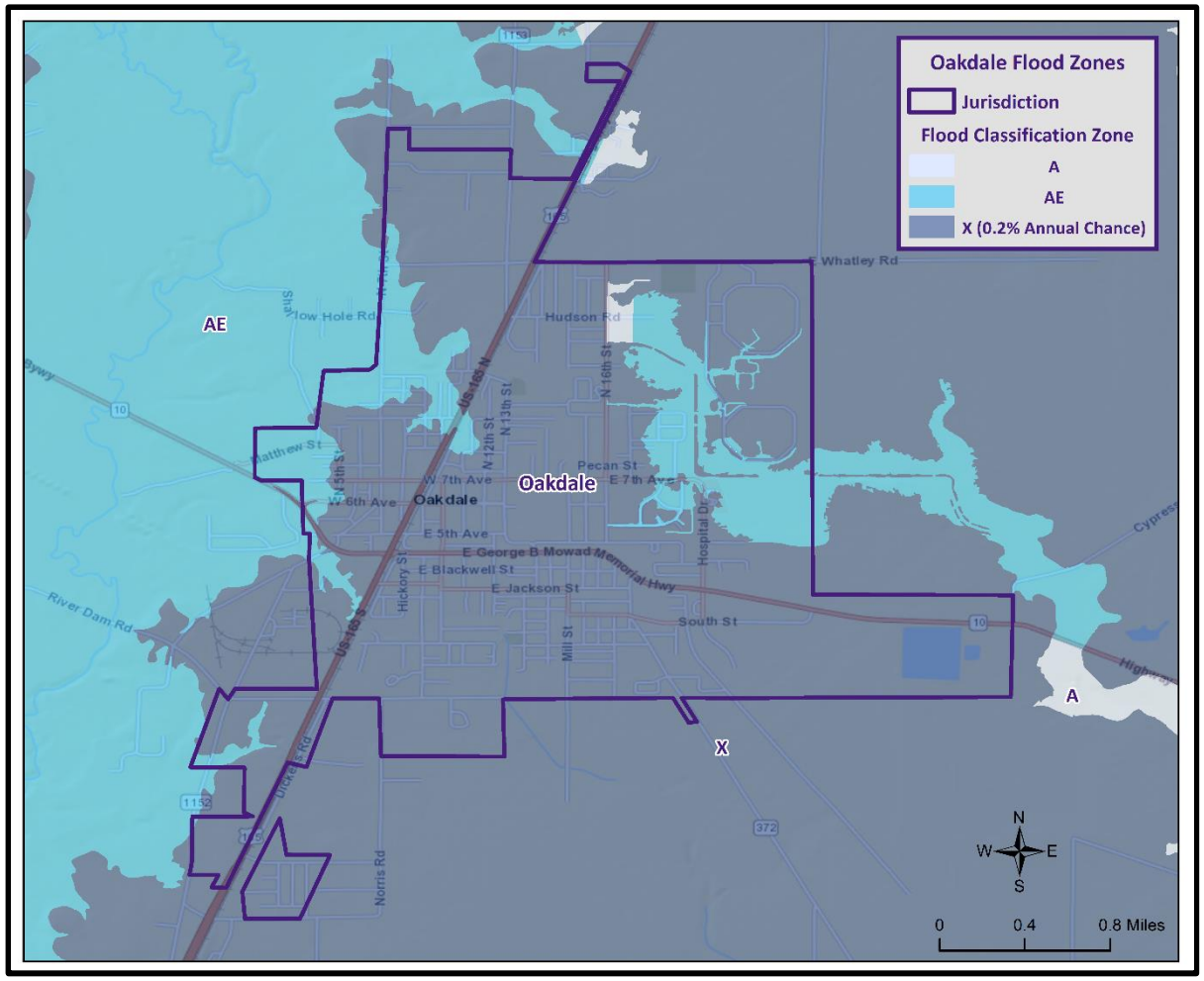


Elizabeth

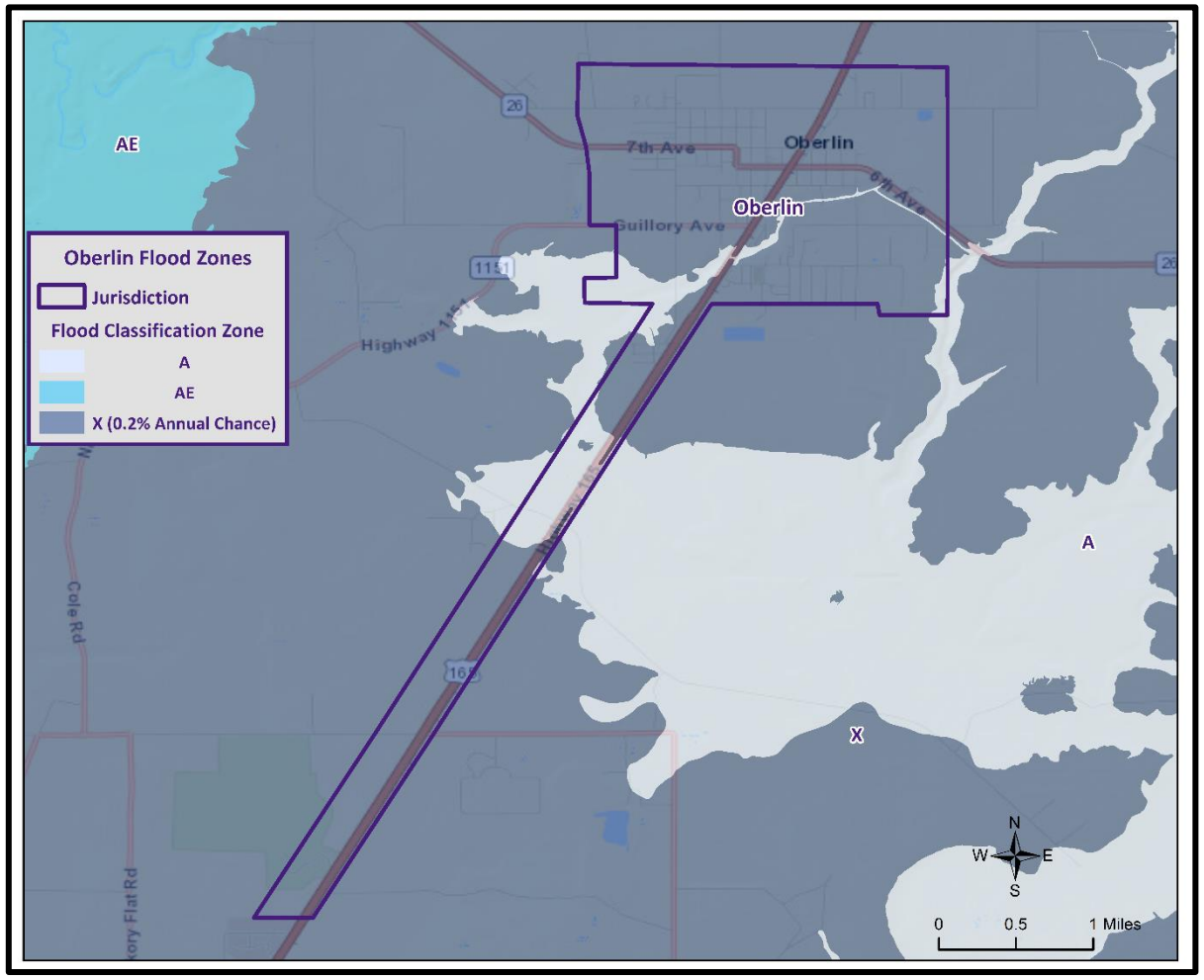


Kinder

Municipal Flood Maps

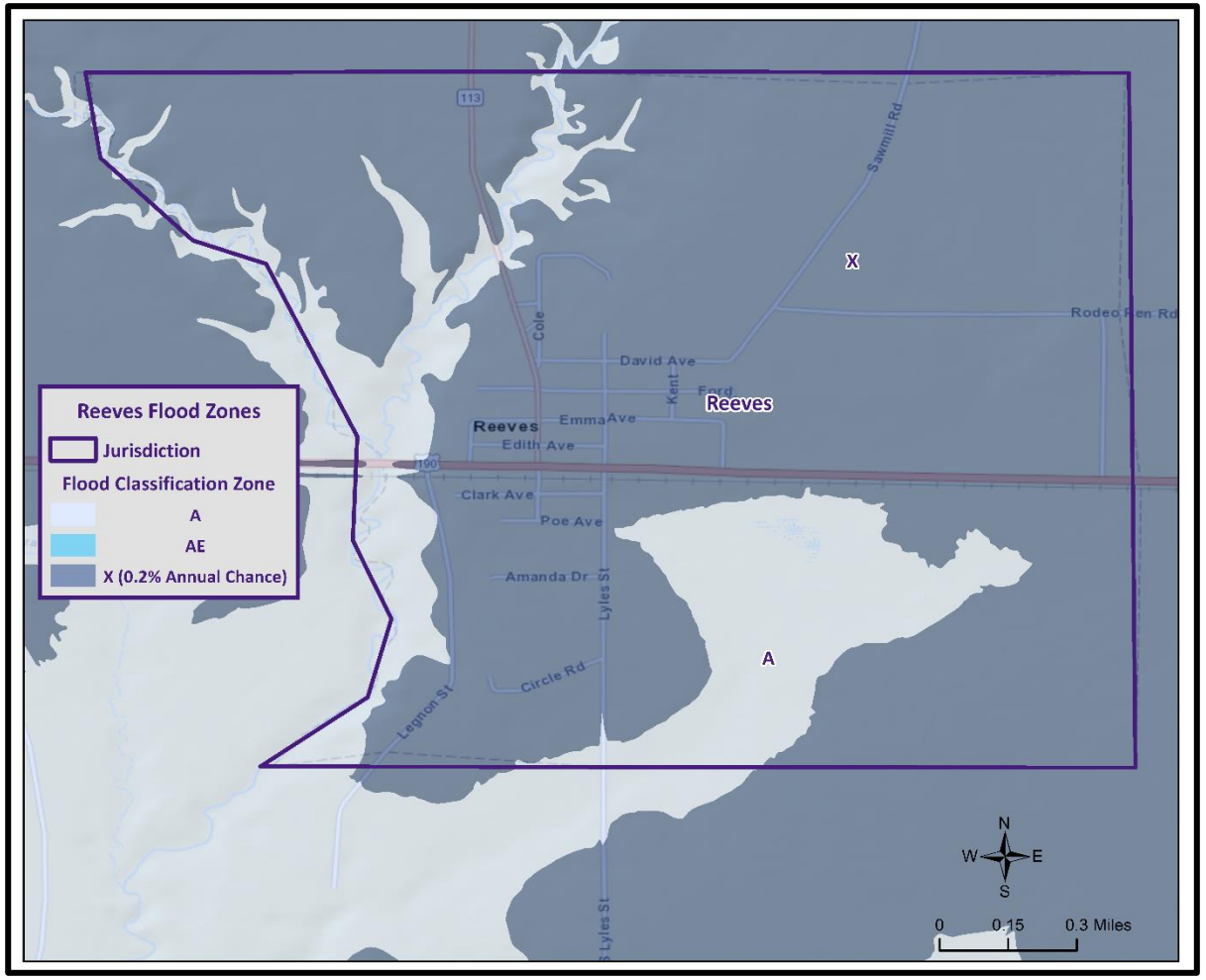


Oakdale



Oberlin

Municipal Flood Maps

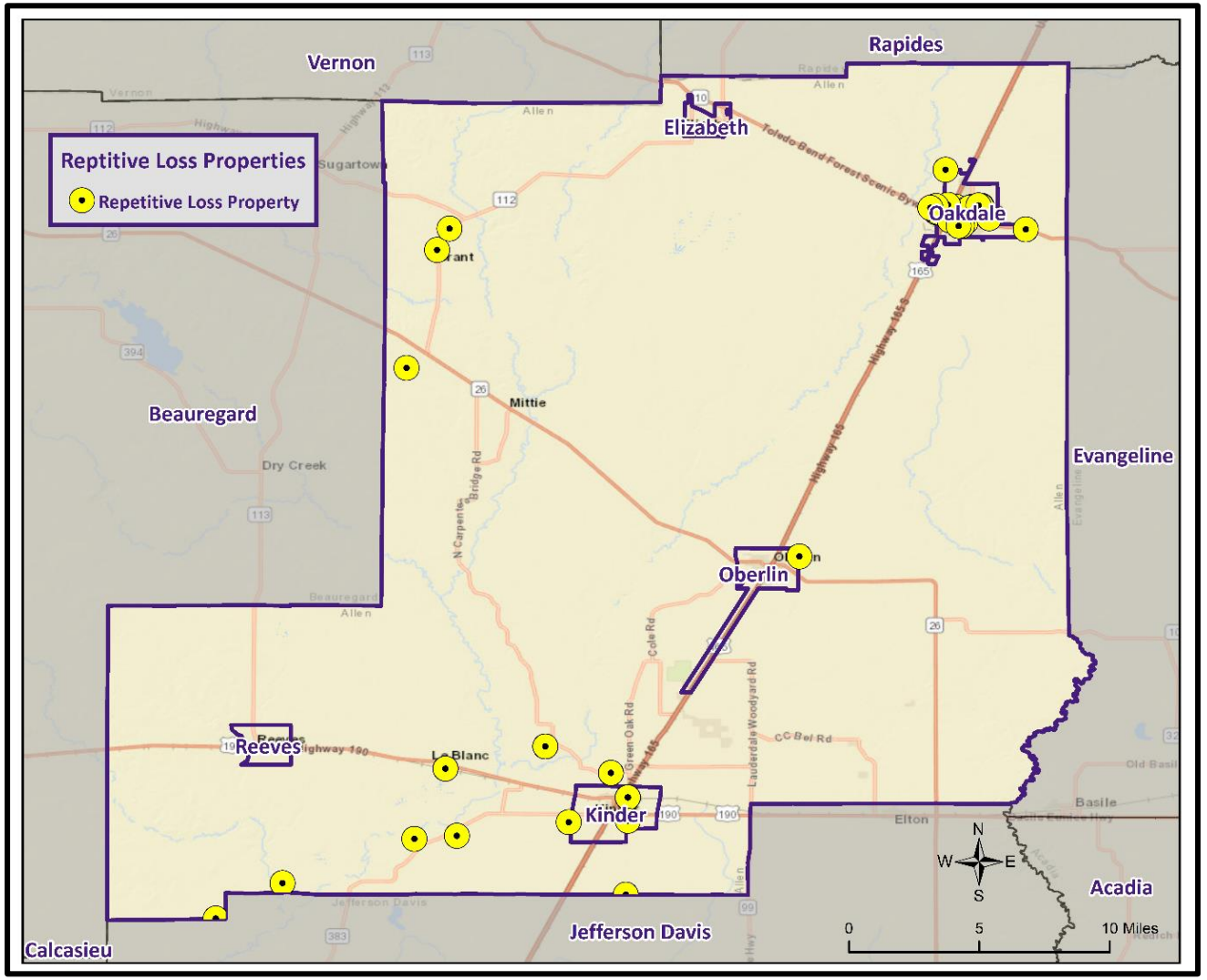


Reeves

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 around 160,000 repetitive loss properties in the U.S.
- These properties comprise 1% of the NFIP policy base, but they account for approximately 30% of the country’s flood insurance claim payments.

Repetitive Loss Properties



Allen Parish

LSU | Stephenson Disaster Management Institute

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.

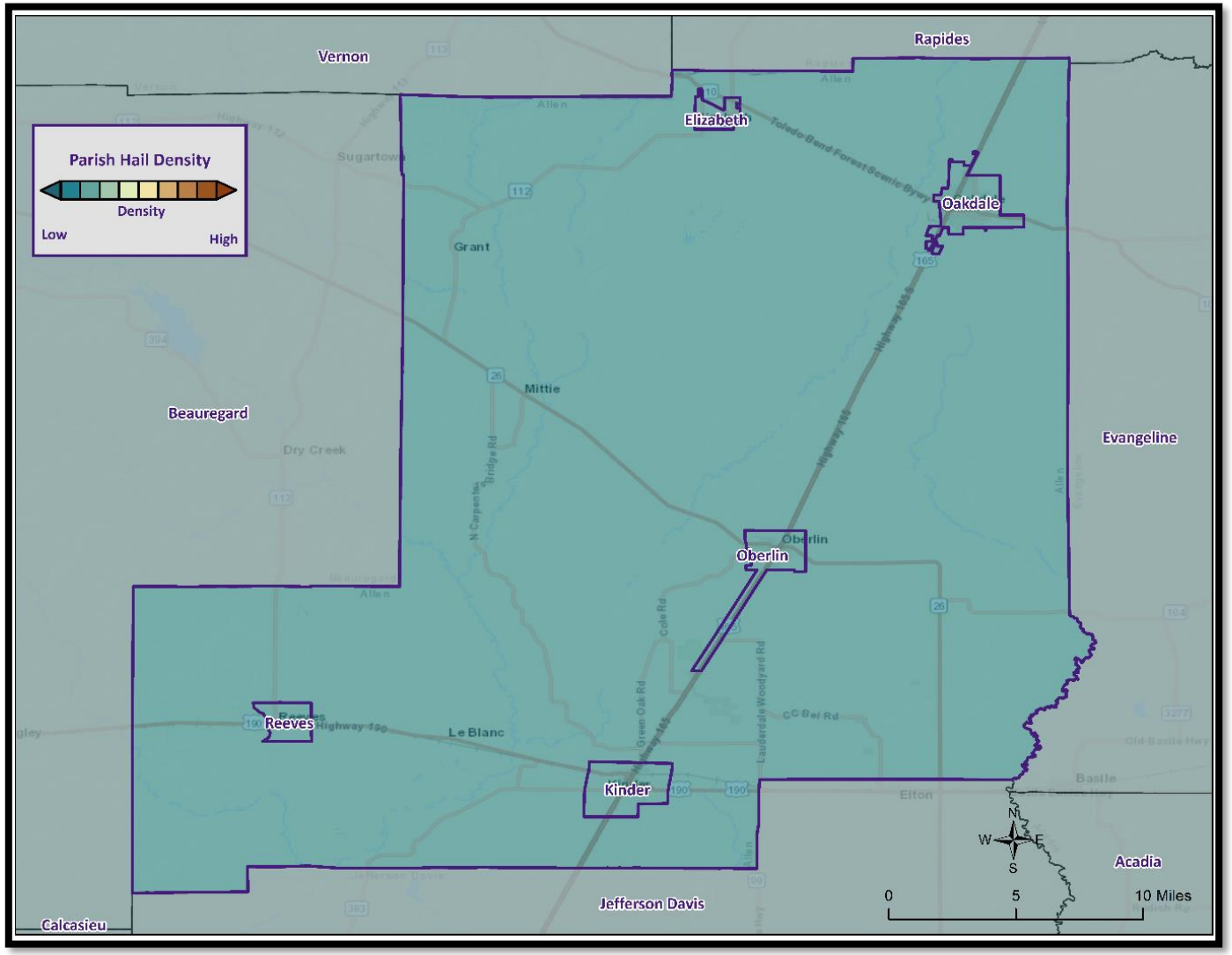
- They are usually accompanied by strong winds, heavy rain, and sometimes snow, sleet, or hail.

- 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.

Allen Parish

LSU | Stephenson Disaster Management Institute

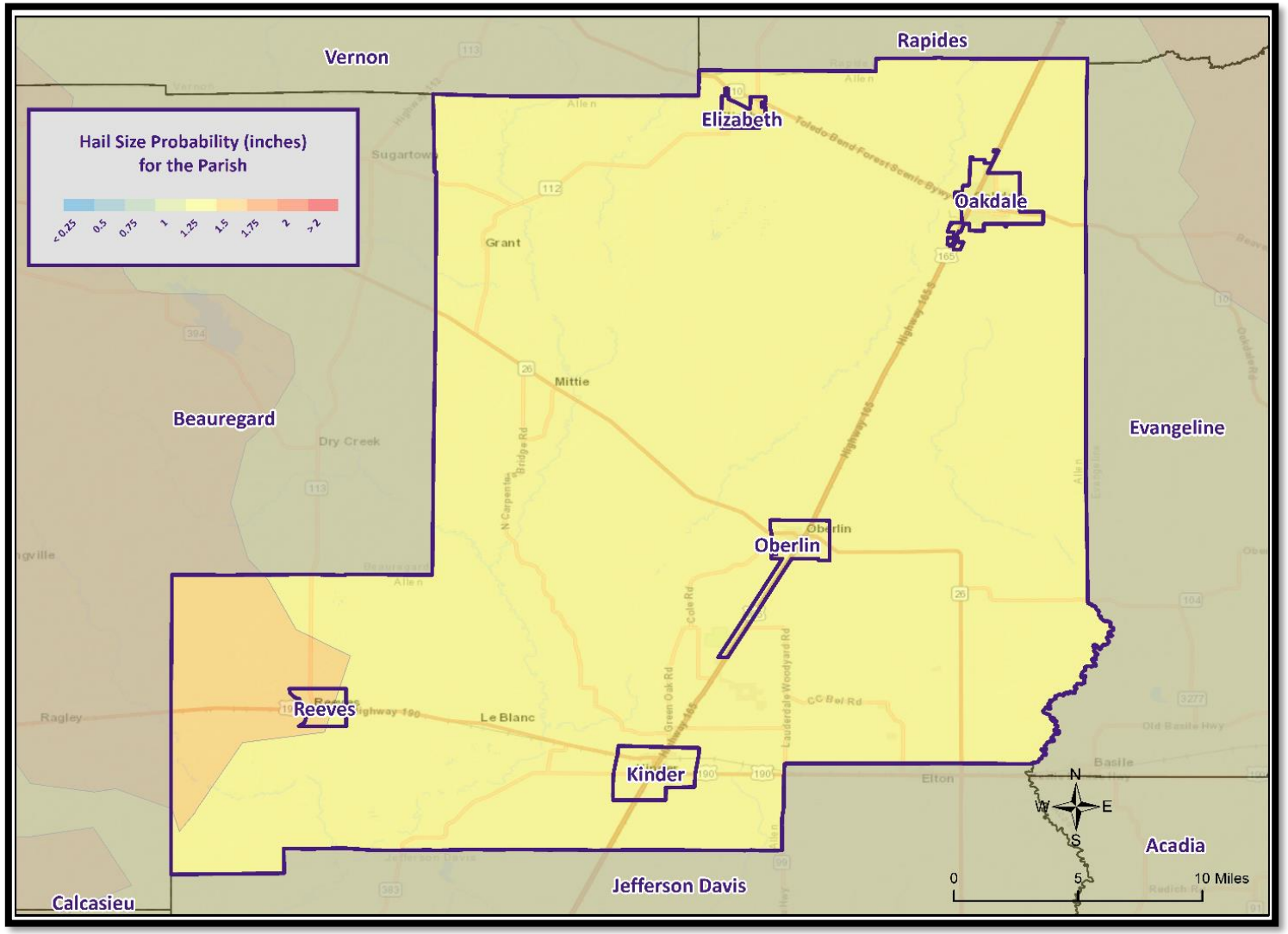
Hailstorm Density



Allen Parish

LSU | Stephenson Disaster Management Institute

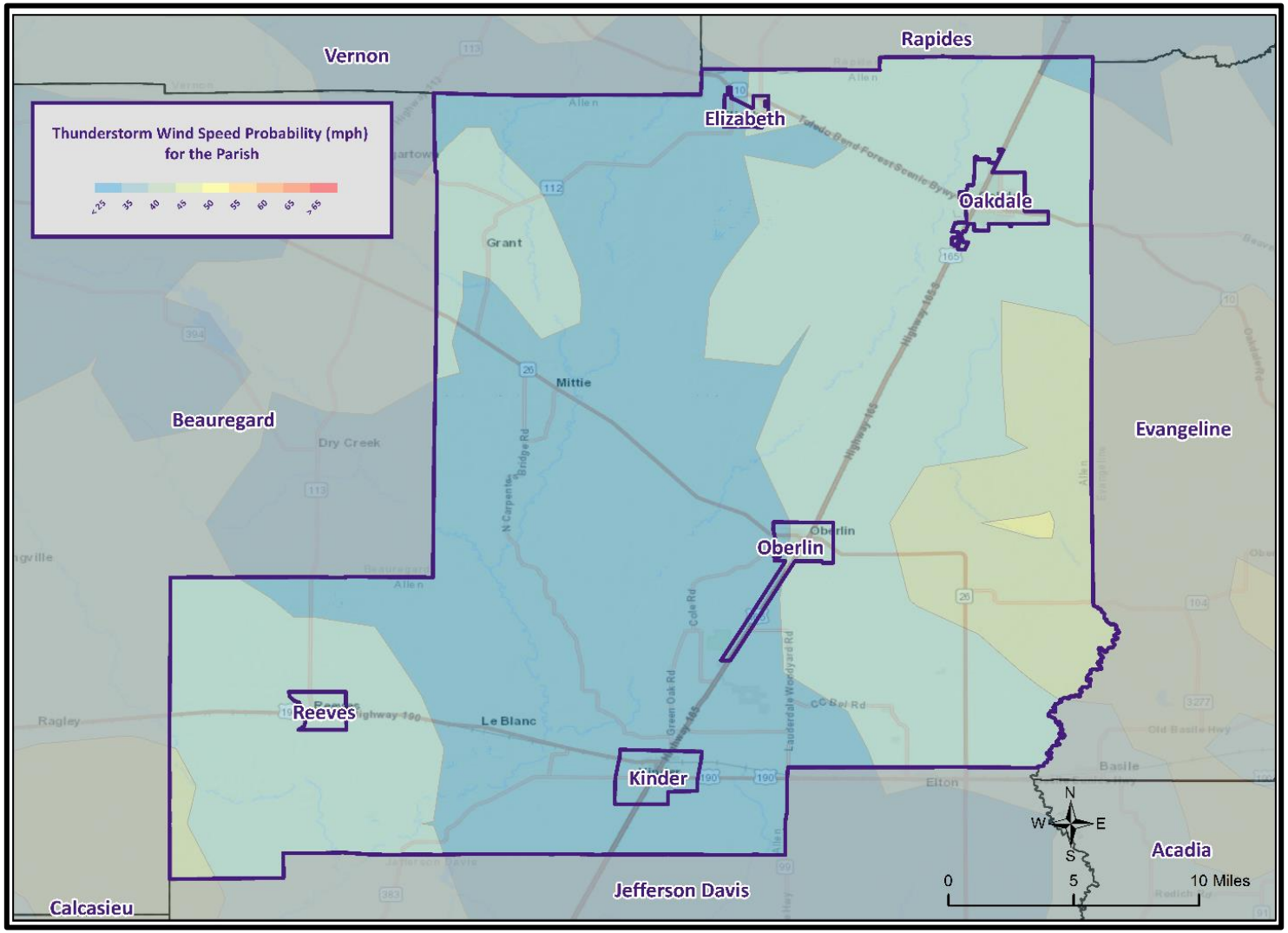
Maximum Hail Size Probability



Allen Parish

LSU | Stephenson Disaster Management Institute

Maximum Wind Speed Probability



Allen Parish

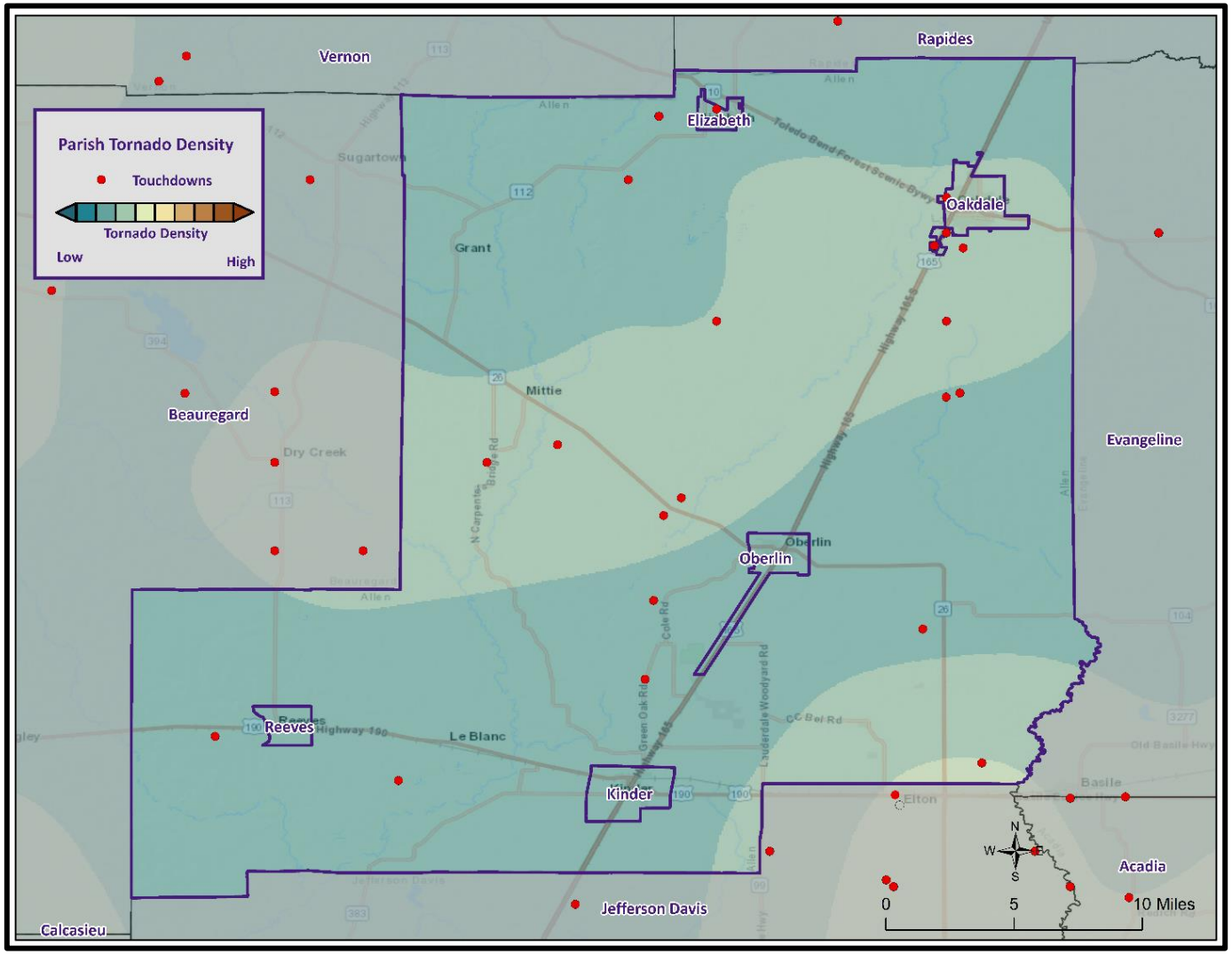
LSU | Stephenson Disaster Management Institute

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

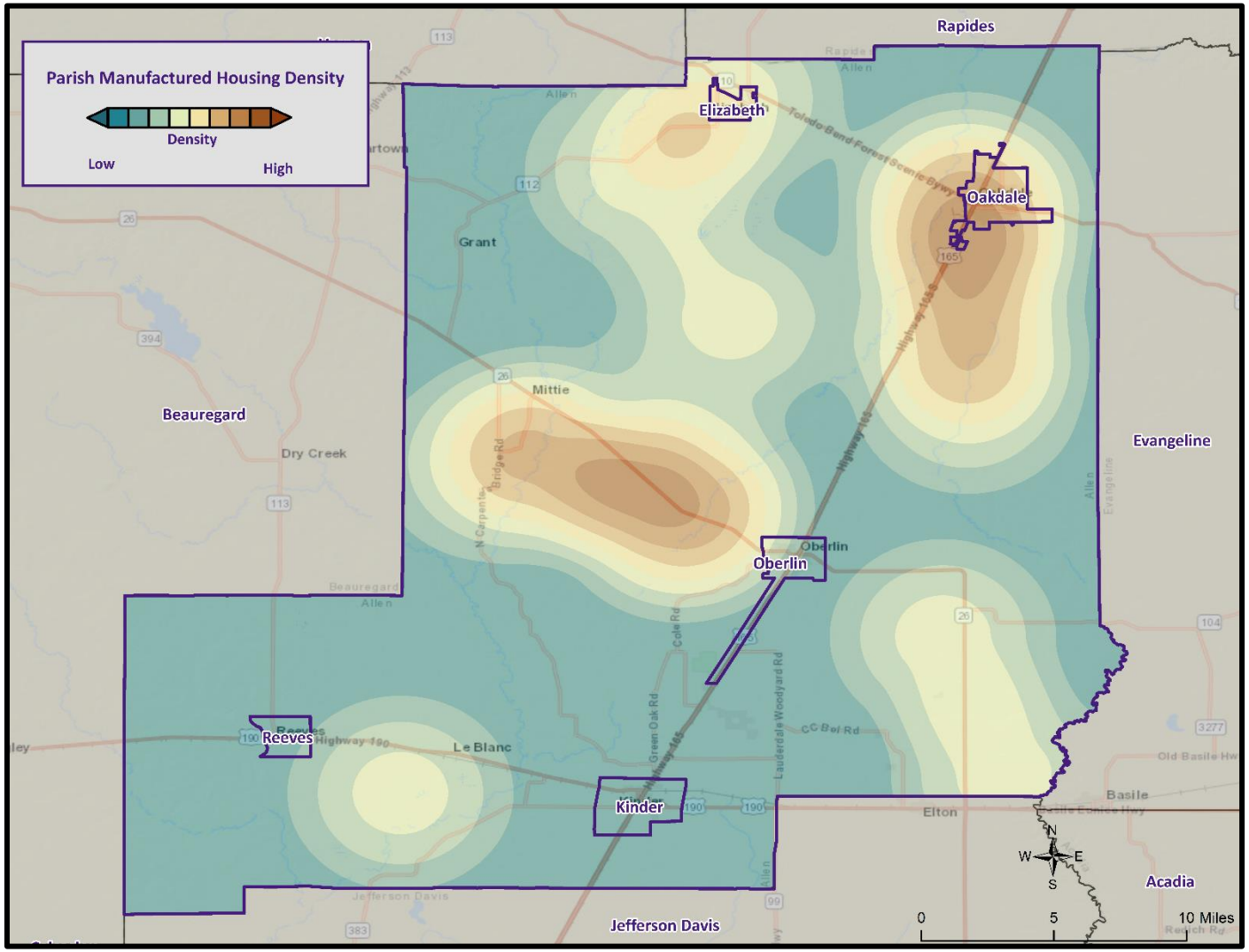
Tornadoes in Allen Parish



Allen Parish

LSU | Stephenson Disaster Management Institute

Manufactured Home Density



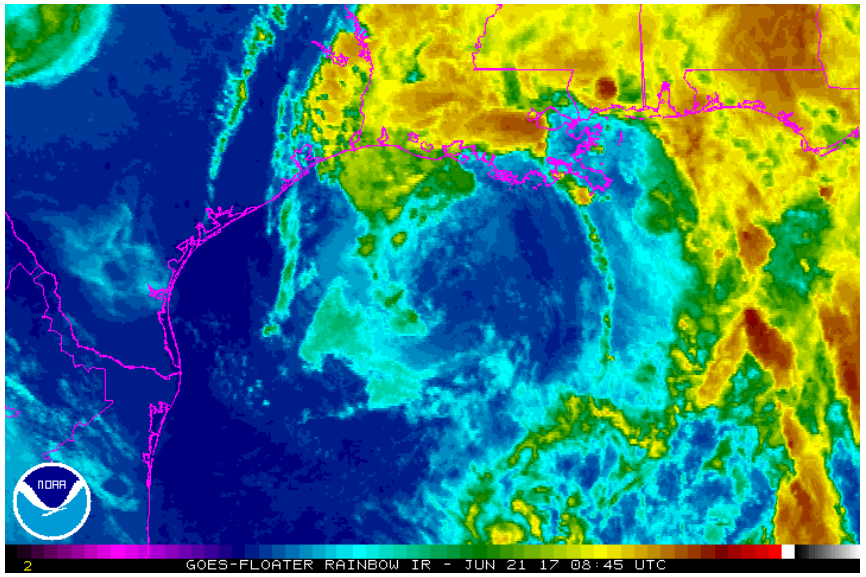
Allen Parish

LSU | Stephenson Disaster Management Institute

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

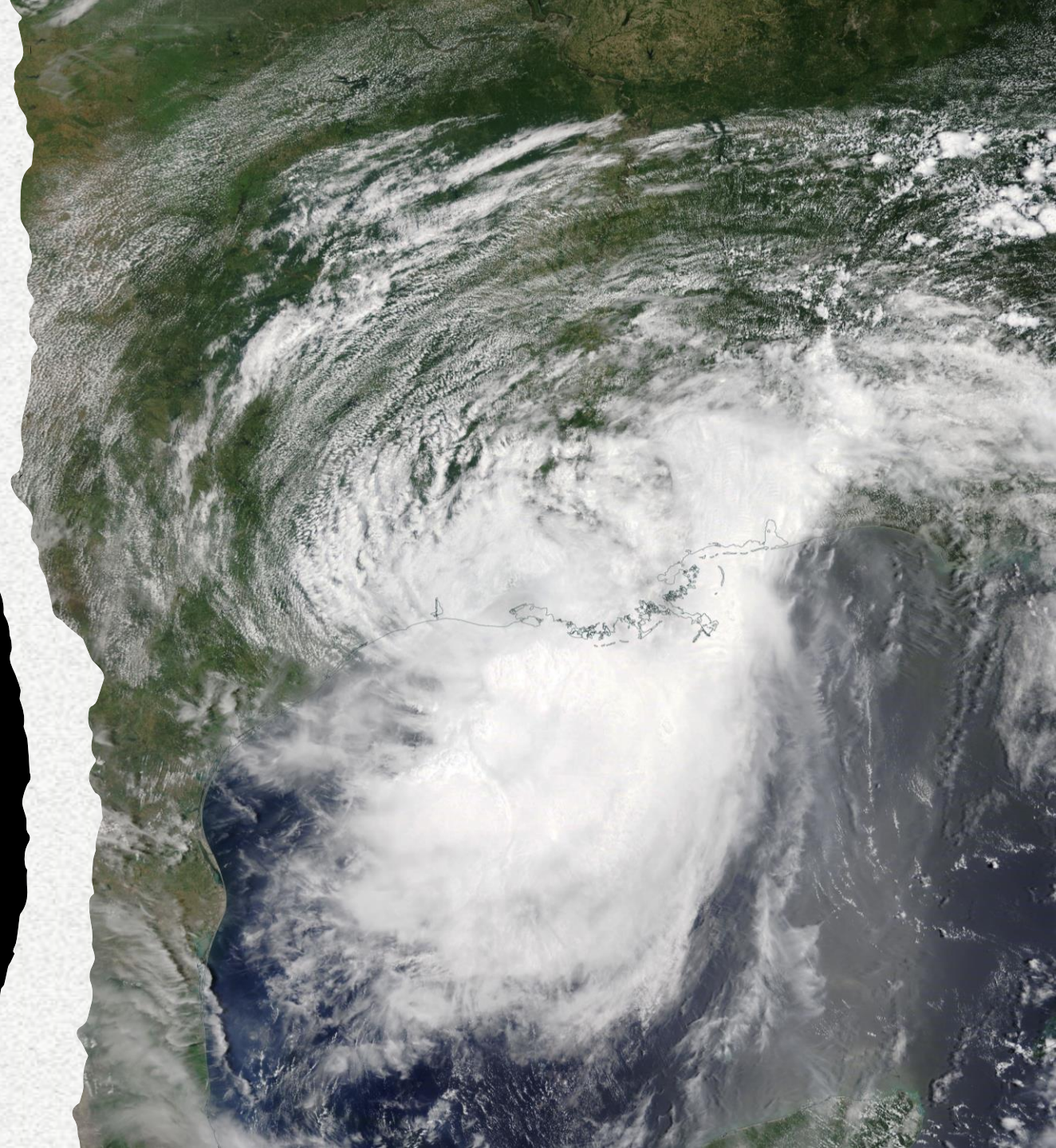
Saffir-Simpson Hurricane Wind Scale		
	Sustained Wind Speed	**Effects**
Category 1	74-95 mph (119-153 km/hr)	Very dangerous winds will produce some damage. Low-lying coastal roads flooded, minor pier damage
Category 2	96-110 mph (154-177 km/hr)	Extremely dangerous winds will cause extensive damage. Major 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.



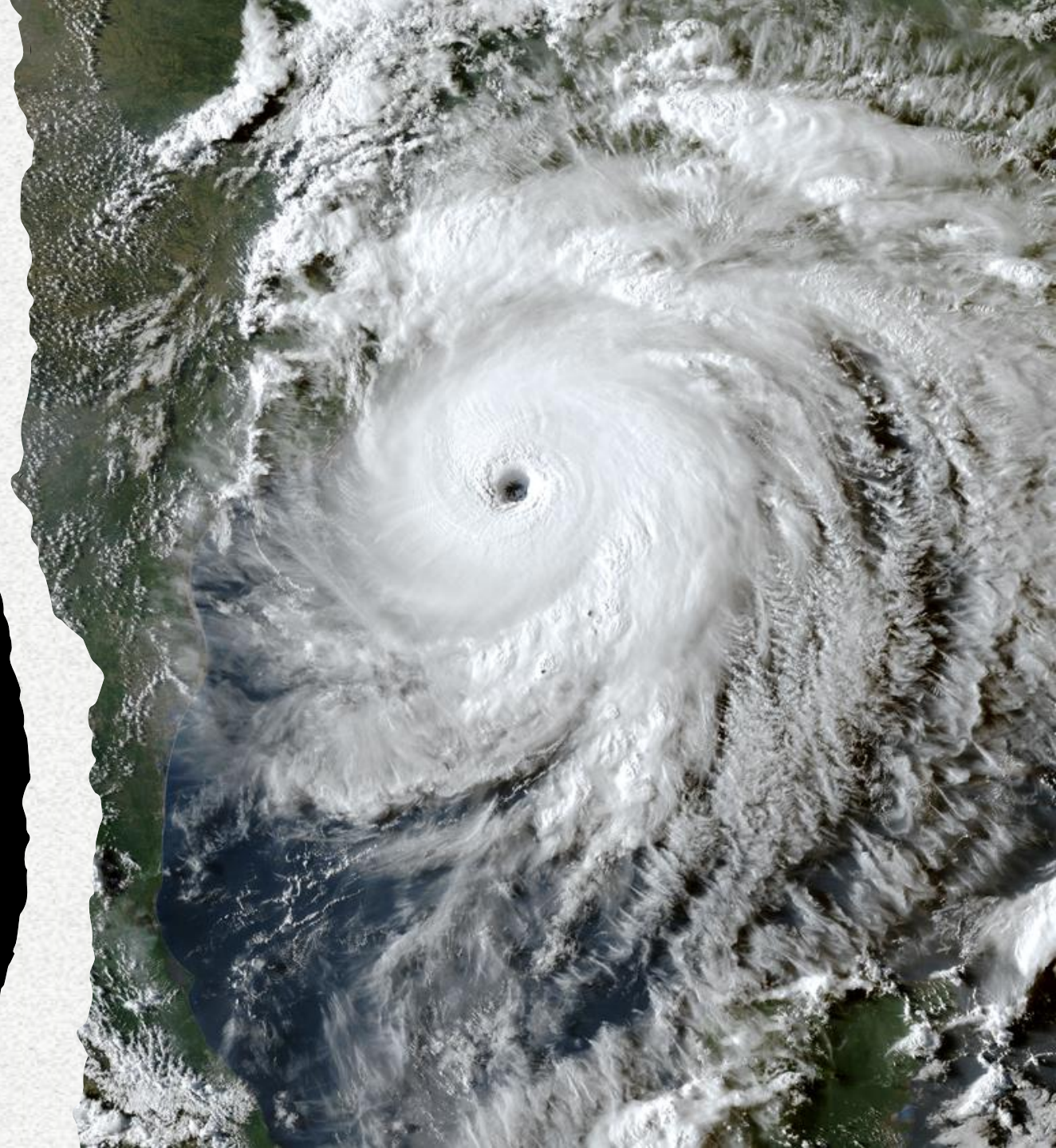
Allen Parish

LSU | Stephenson Disaster Management Institute

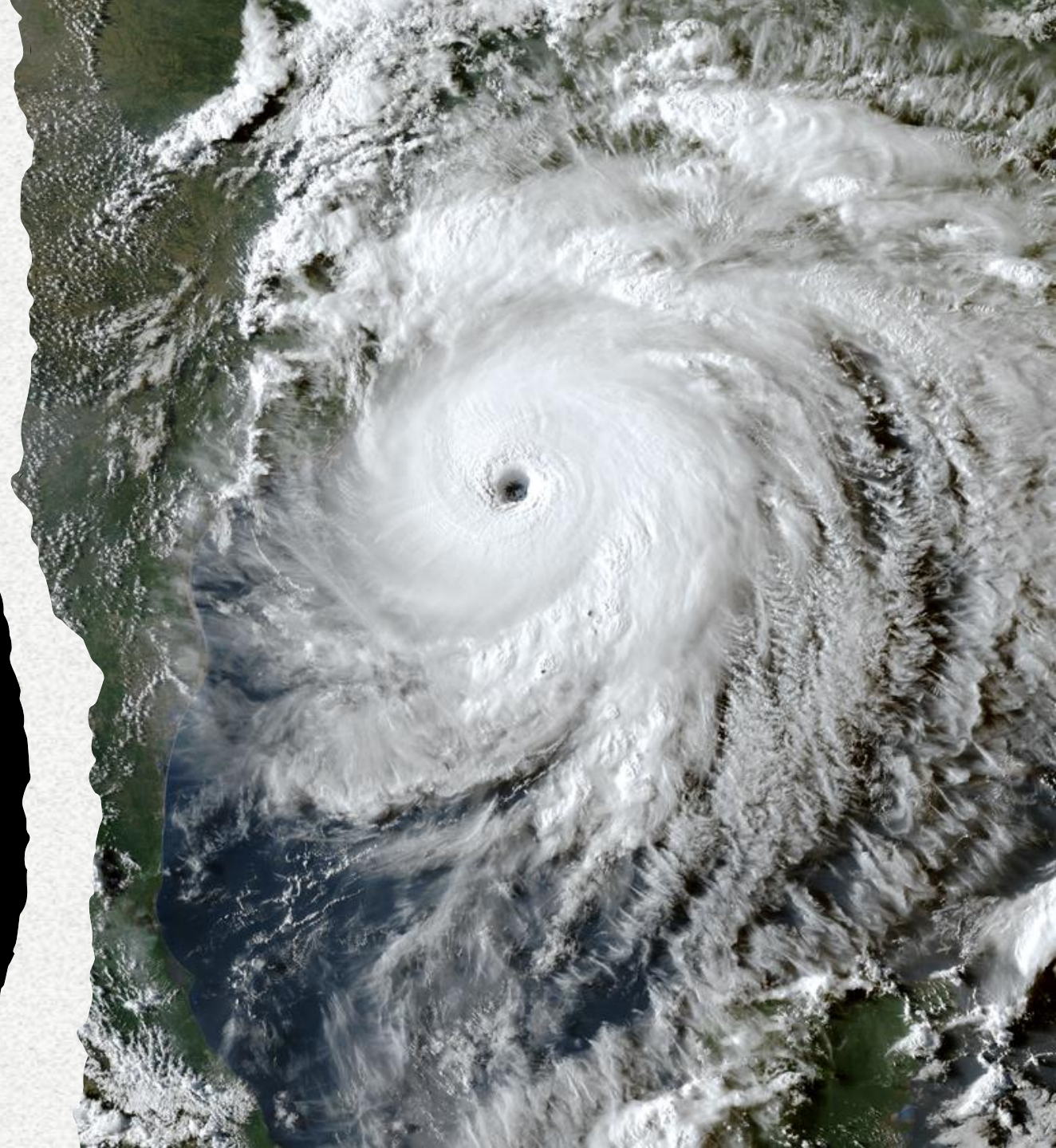
Hurricane Barry (2019)



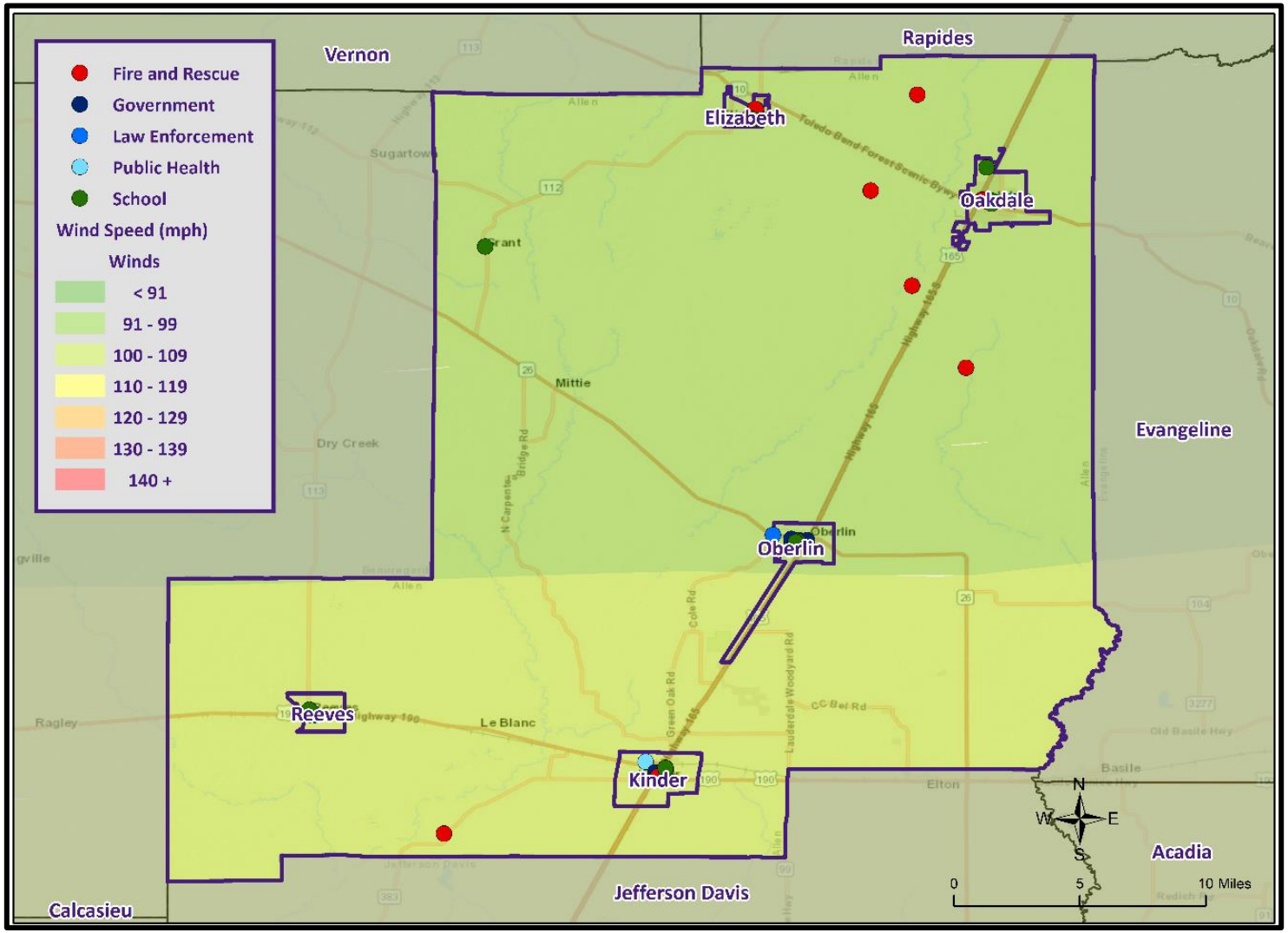
Hurricane Laura (2020)



Hurricane Delta (2020)



Wind Speed Impacts on C.I.



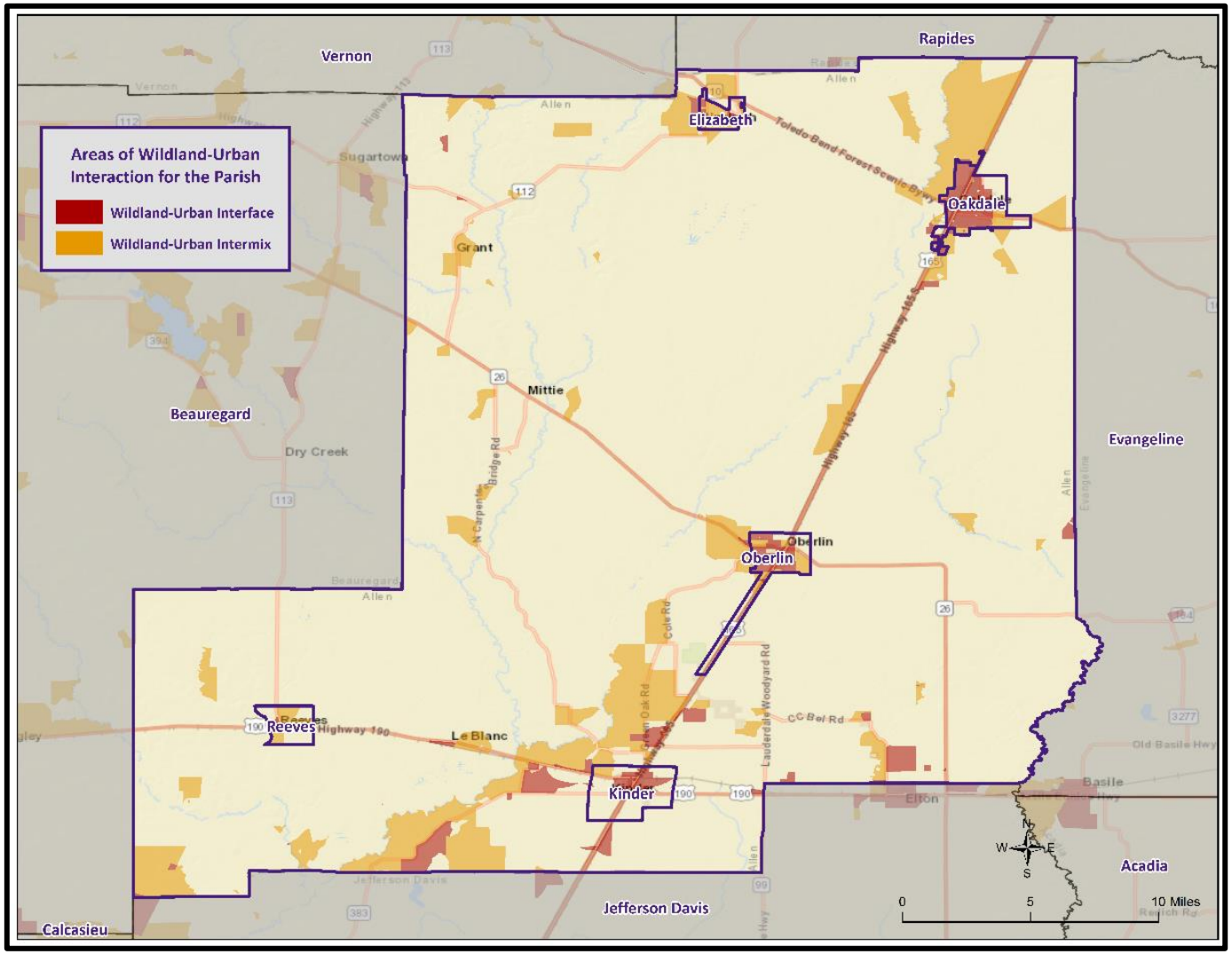
Allen Parish

LSU | Stephenson Disaster Management Institute

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.

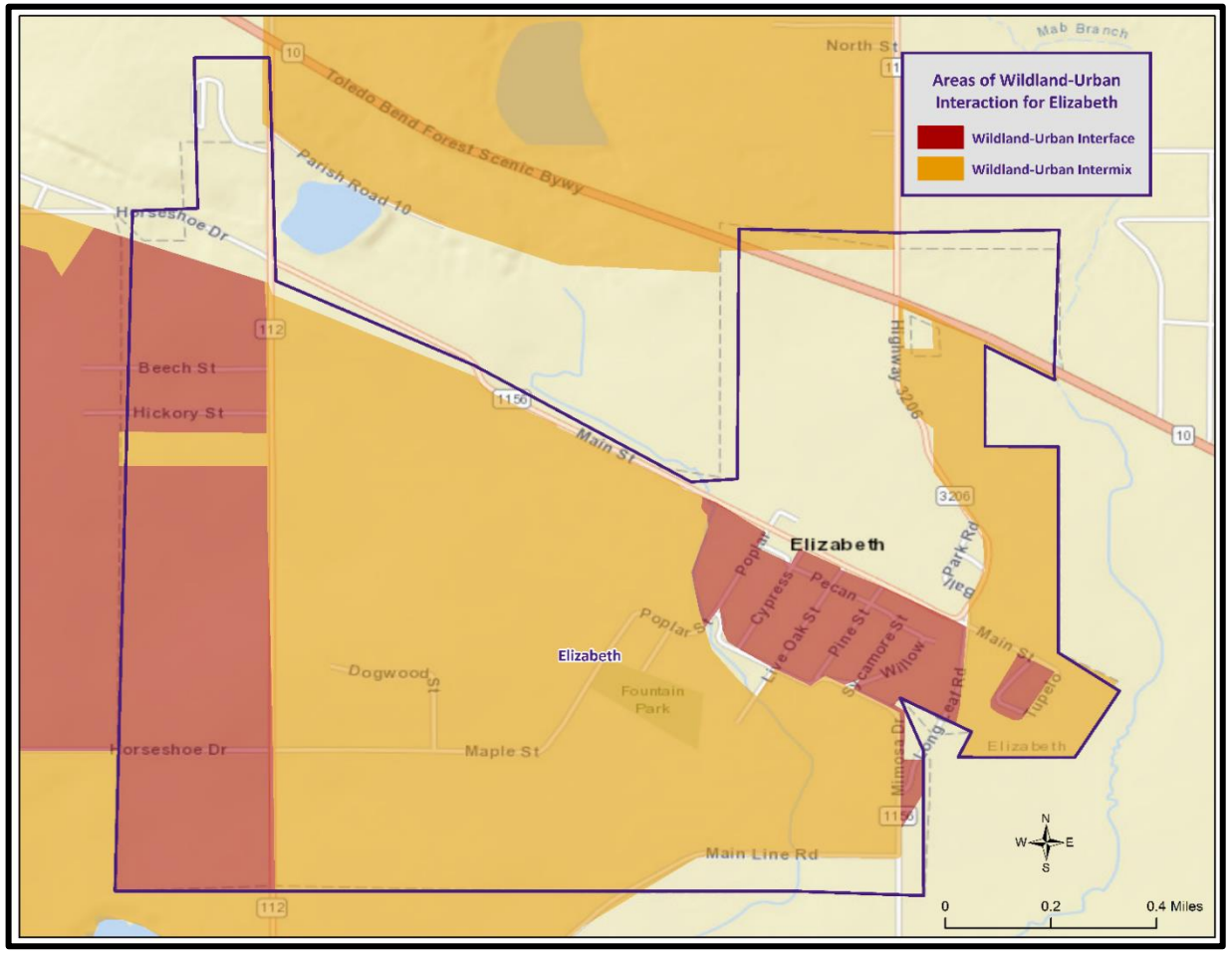
Wildland-Urban Interaction in Allen Parish



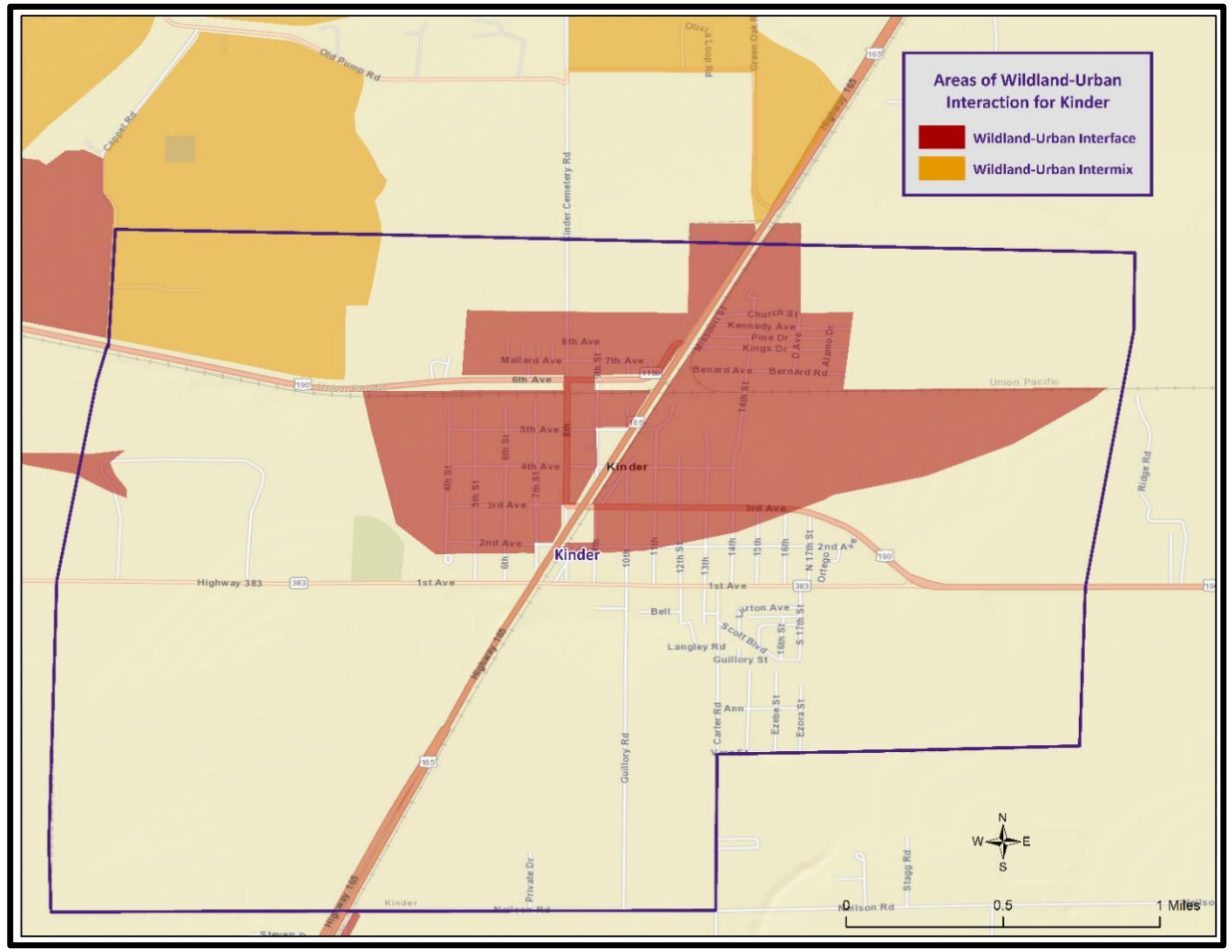
Allen Parish

LSU | Stephenson Disaster Management Institute

Municipal WUI Maps

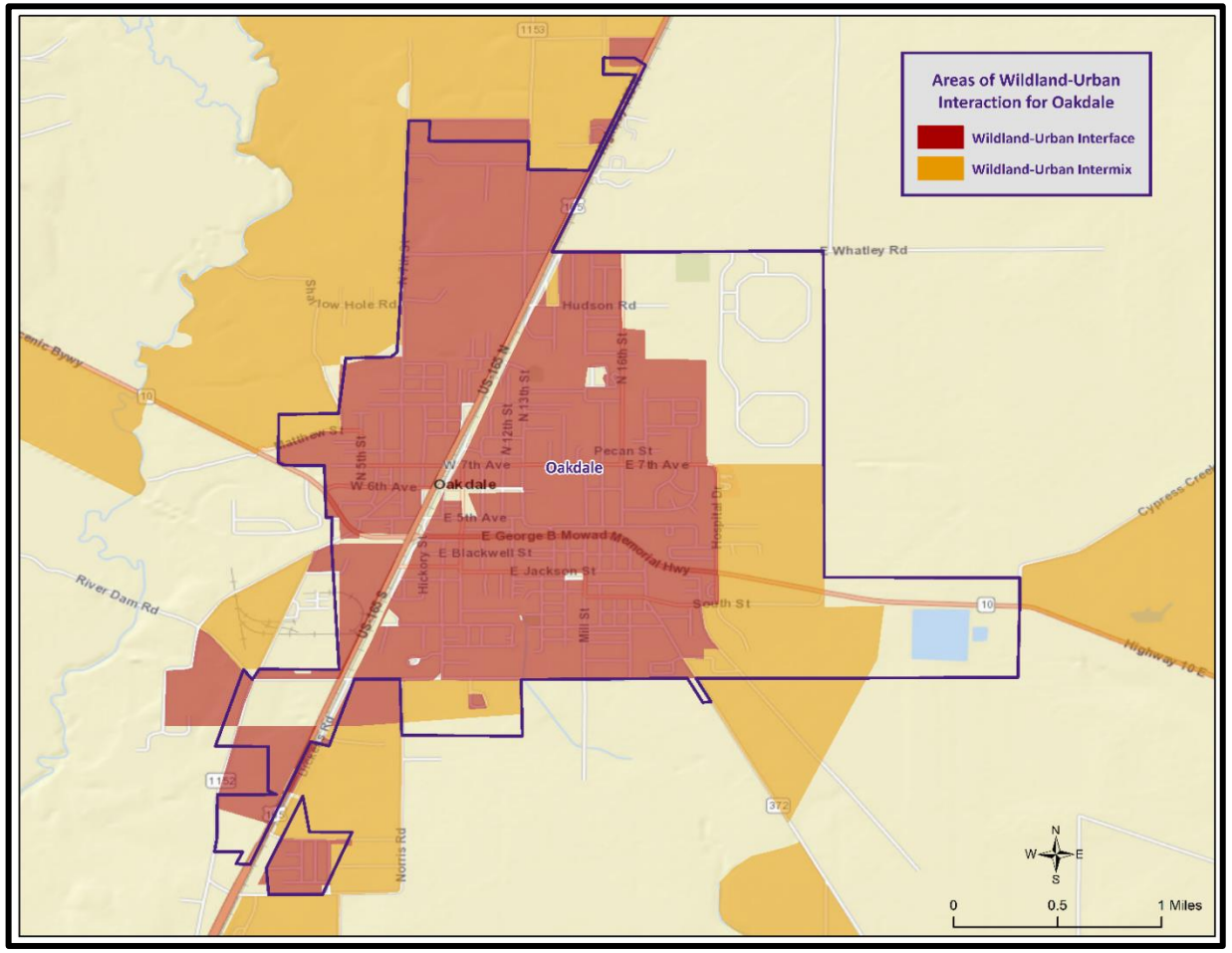


Elizabeth

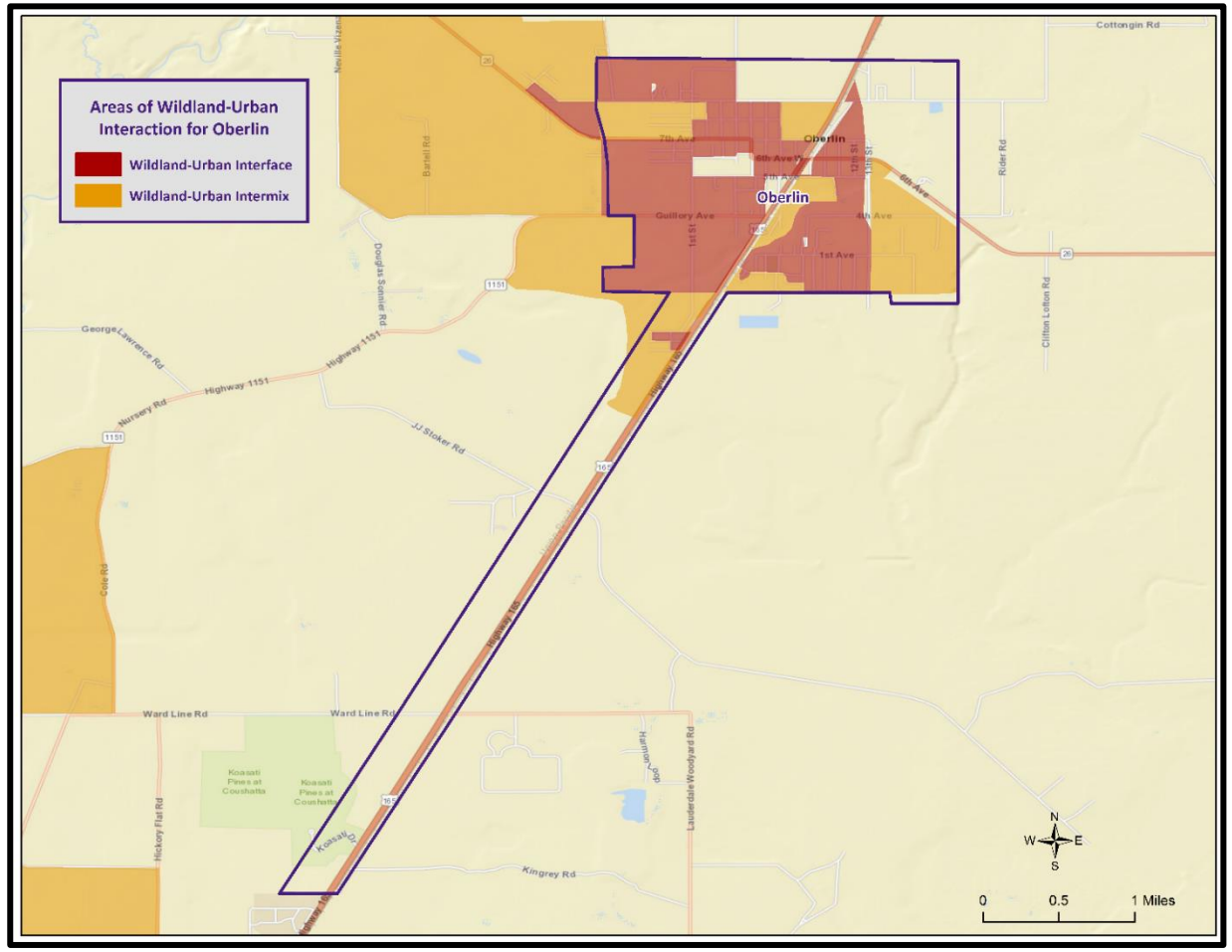


Kinder

Municipal WUI Maps

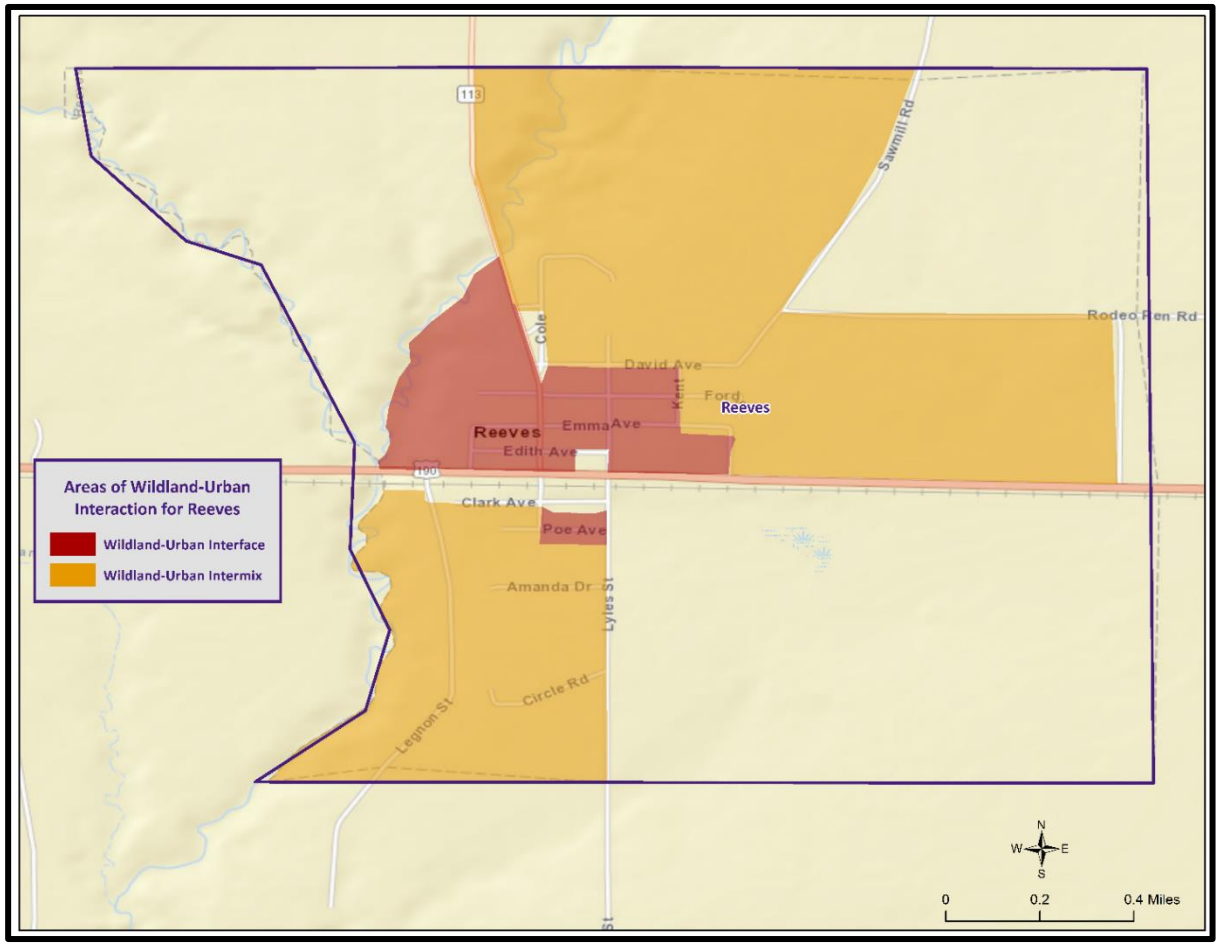


Oakdale



Oberlin

Municipal WUI Maps



Reeves

Winter Weather

- Occurs when humid air from the Gulf of Mexico meets a cold air mass from the north.
- As the temperature falls, 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.

Allen Parish Mitigation Goals

- Protect the lives and health of Parish residents from the dangers of natural hazards including ensuring access to public facilities and escape routes as necessary
- Protect Parish schools, homes, and businesses from damage
- Give special attention to repetitively flooded areas

Parish Hazard Mitigation Project Update

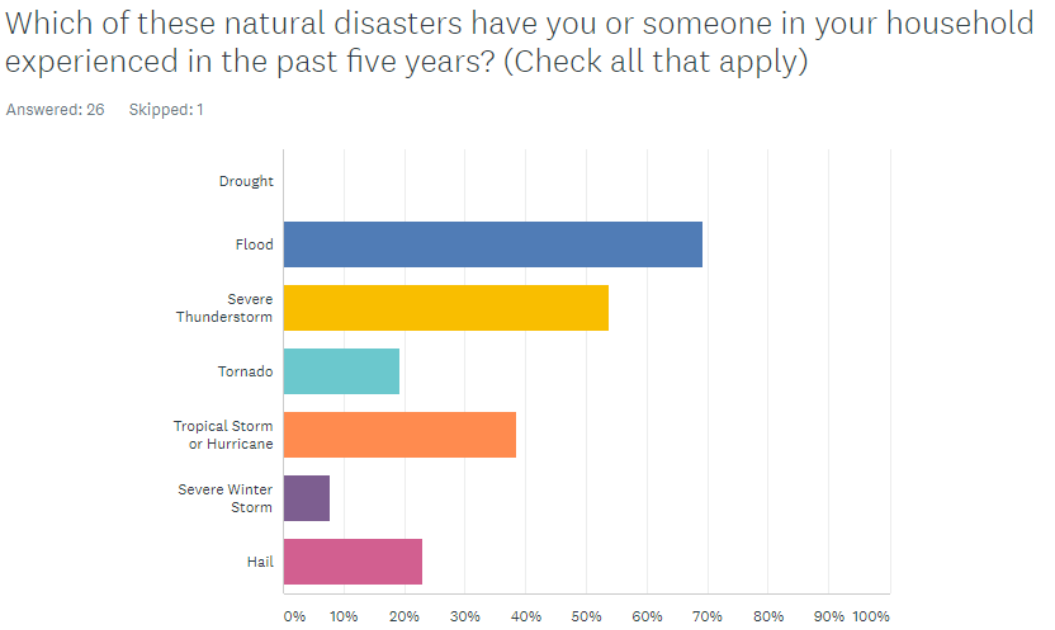
Allen OHSEP/

Allen Parish Police Jury Discussion

Public Outreach Activity #1

Allen Parish Hazard Mitigation Public Opinion Survey

https://lsu.qualtrics.com/jfe/form/SV_3UfyszMzNu7iZi6



LSU | Stephenson Disaster Management Institute

Public Outreach Activity #2

Please fill out an incident questionnaire!

ALLEN PARISH PUBLIC MEETING ACTIVITY

PUBLIC ACTIVITY: INCIDENT/ ISSUE QUESTIONNAIRE

1. HAZARD TYPE(S):

A. FLOODING
B. THUNDERSTORMS
C. TORNADOES
D. TROPICAL CYCLONES
E. WILDFIRES
F. WINTER WEATHER

2. DESCRIBE INCIDENT OR ISSUE:

3. LOCATION:

A. CITY:

B. ADDRESS OR AREA:

4. INTENSITY:

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

B. WIND STRENGTH

5. RECURRING OR ONE TIME:

A. IF RECURRING, HOW OFTEN:

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

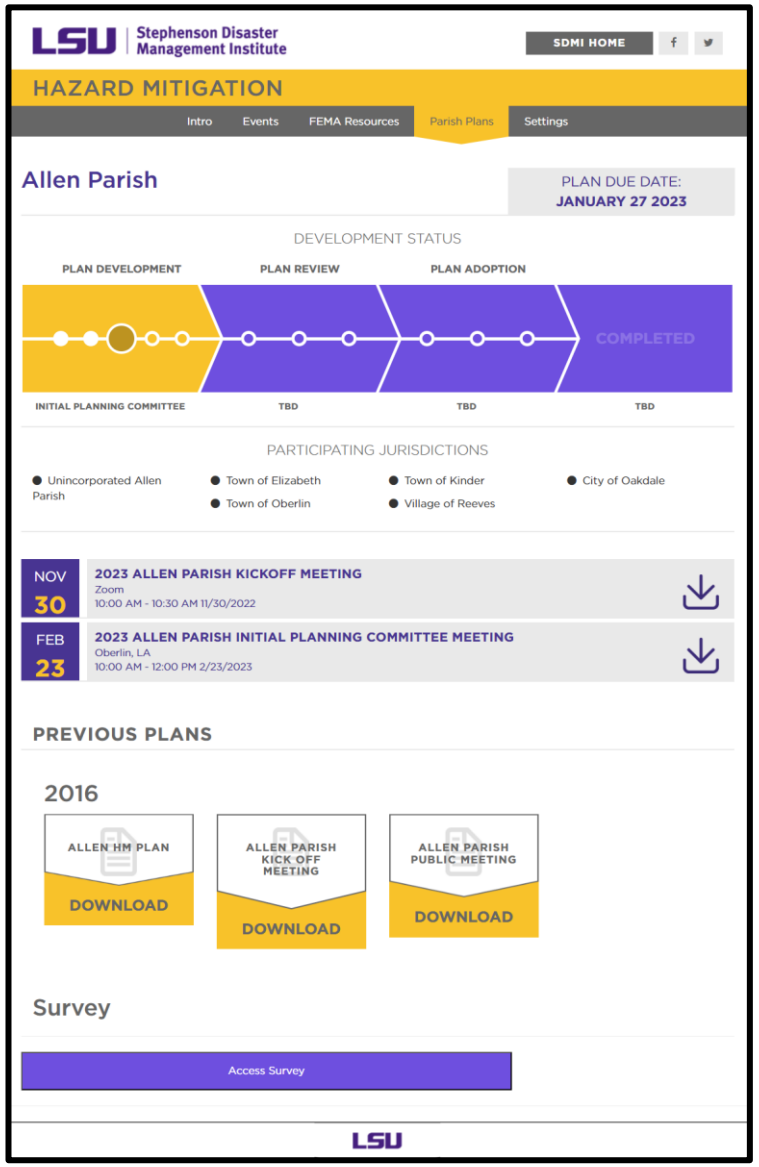
7.HOW LONG WAS THE INTERRUPTION (HOURS, DAYS, WEEKS ETC.)

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

Allen Parish

LSU | Stephenson Disaster Management Institute

SDMI Hazard Mitigation Website



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

LSU | Stephenson Disaster Management Institute

Contact Us

Brant Mitchell, Director, CEM

bmitch9@lsu.edu

(225) 578-5939

Chris Rippetoe, HM Program Manager, CFM

crippe2@lsu.edu

(225) 578-6667

Jason Martin, Emergency Management Analyst

jmar293@lsu.edu

(225) 578-6264

Allen Parish

LSU | Stephenson Disaster Management Institute


STEPHENSON
WHERE RESEARCH
SDMI
MEETS PRACTICE
LSU
DISASTER MANAGEMENT INSTITUTE