



East Carroll Parish Hazard Mitigation Plan Update Public Meeting

Zoom Video Teleconference

August 9, 2022

Introductions

- **East Carroll Parish OHSEP Director**
 - Kenneth Baker – East Carroll OEP Director
- **Stephenson Disaster Management Institute (SDMI) at LSU**
 - Chris Rippetoe – Hazard Mitigation Program Manager
- **Governor's Office of Homeland Security and Emergency Preparedness**
 - Jeffrey Giering – State Hazard Mitigation Officer
 - Marion Pearson – Hazard Mitigation Planner

Agenda



Introductions



**Hazard Mitigation
Overview**



Planning Process



**Risk Assessment
Maps**



**Public Outreach
Activities**



The Hazard Mitigation Plan: What is in it for us?

Hazard Mitigation Is....

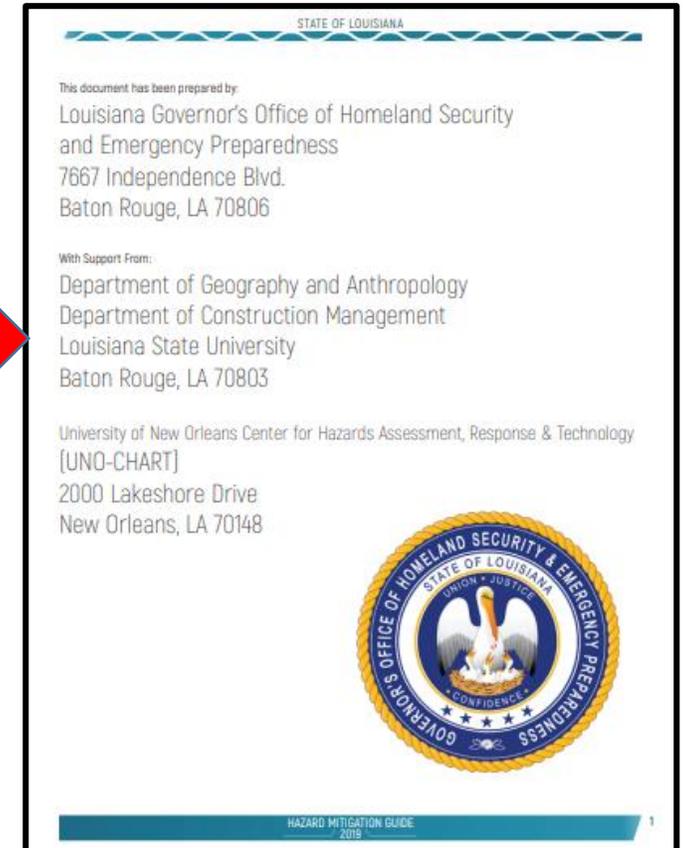
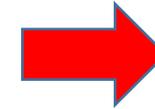
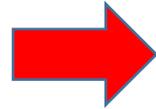
Any action taken to reduce long term risk to life and property;

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 Here?



Why Are We Required To Have A Hazard Mitigation Plan?

- Disaster Mitigation Act of 2000 (DMA 2000)

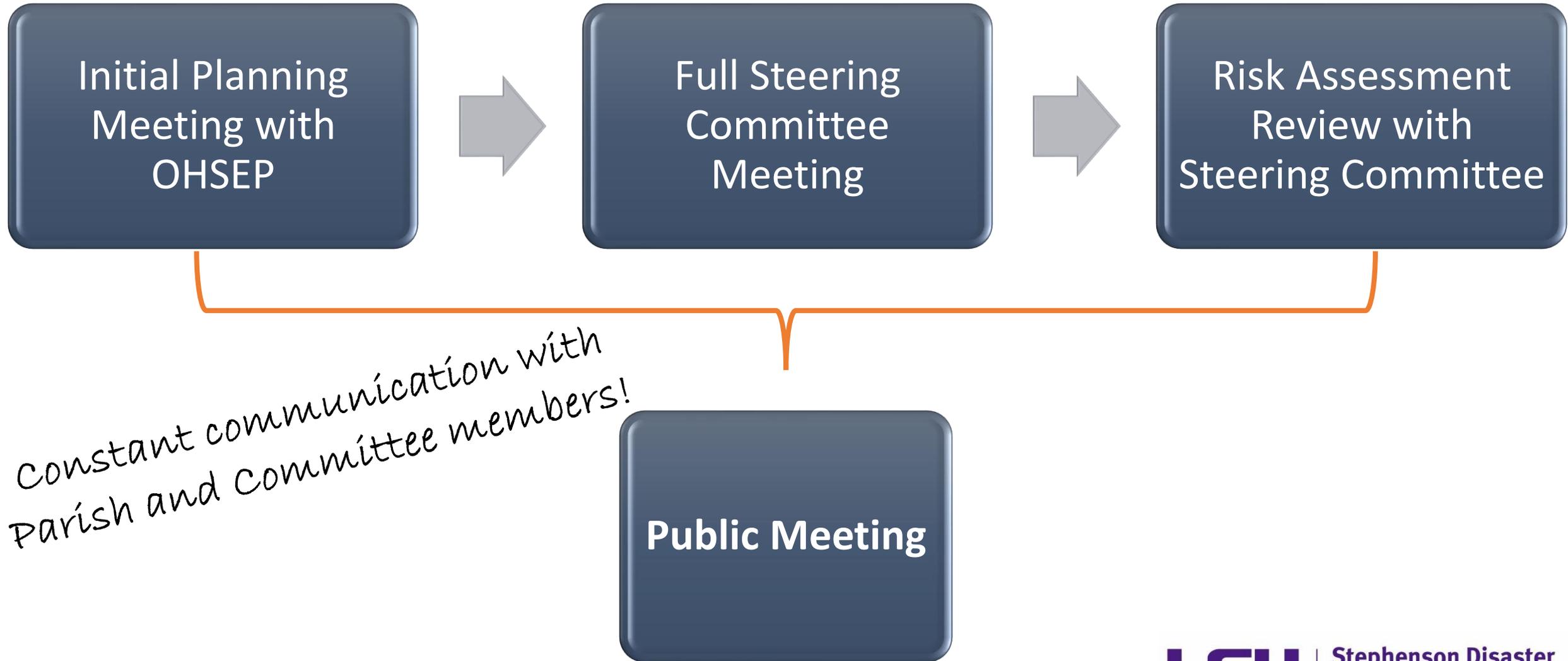
Section 322 of the Act specifically addresses mitigation planning and requires state and local governments to prepare multi-hazard migration plans as a precondition for receiving FEMA mitigation project grants.

- 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.

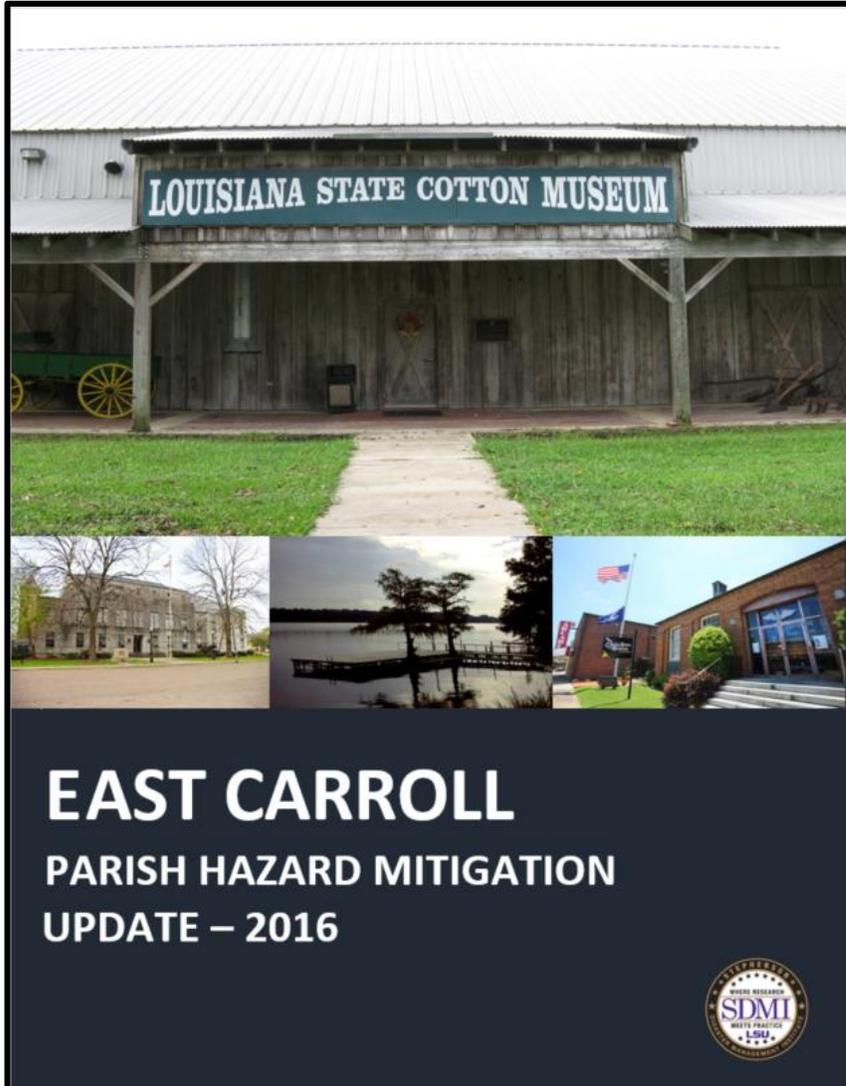


- The approved East Carroll Parish Hazard Mitigation Plan will allow for distribution of HM funding following future disasters.

Planning Process to Date



Planning Development



Plan Layout

- **Section 1: Introduction**
 - Update parish description
 - Update demographic and economic information
- **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 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 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
- Flooding
- Levee Failure
- Thunderstorms



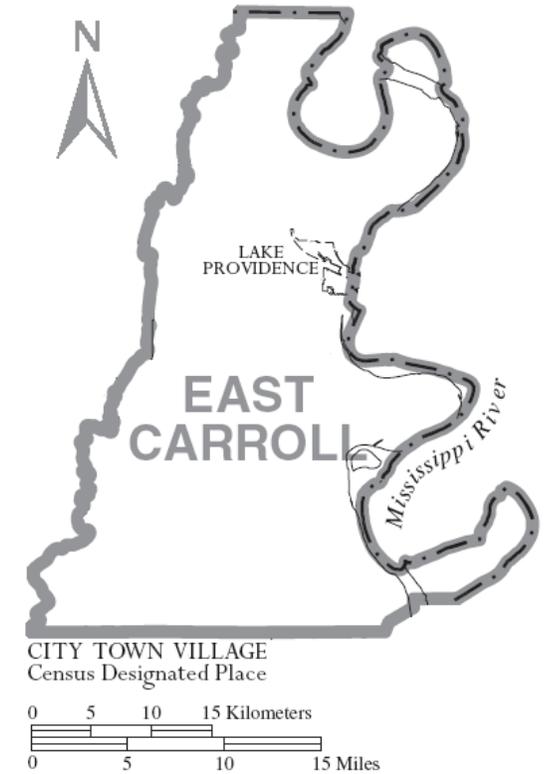
- Tornadoes
- Tropical Cyclones
- Wildfires
- Winter Weather



Risk Matrix for East Carroll Parish

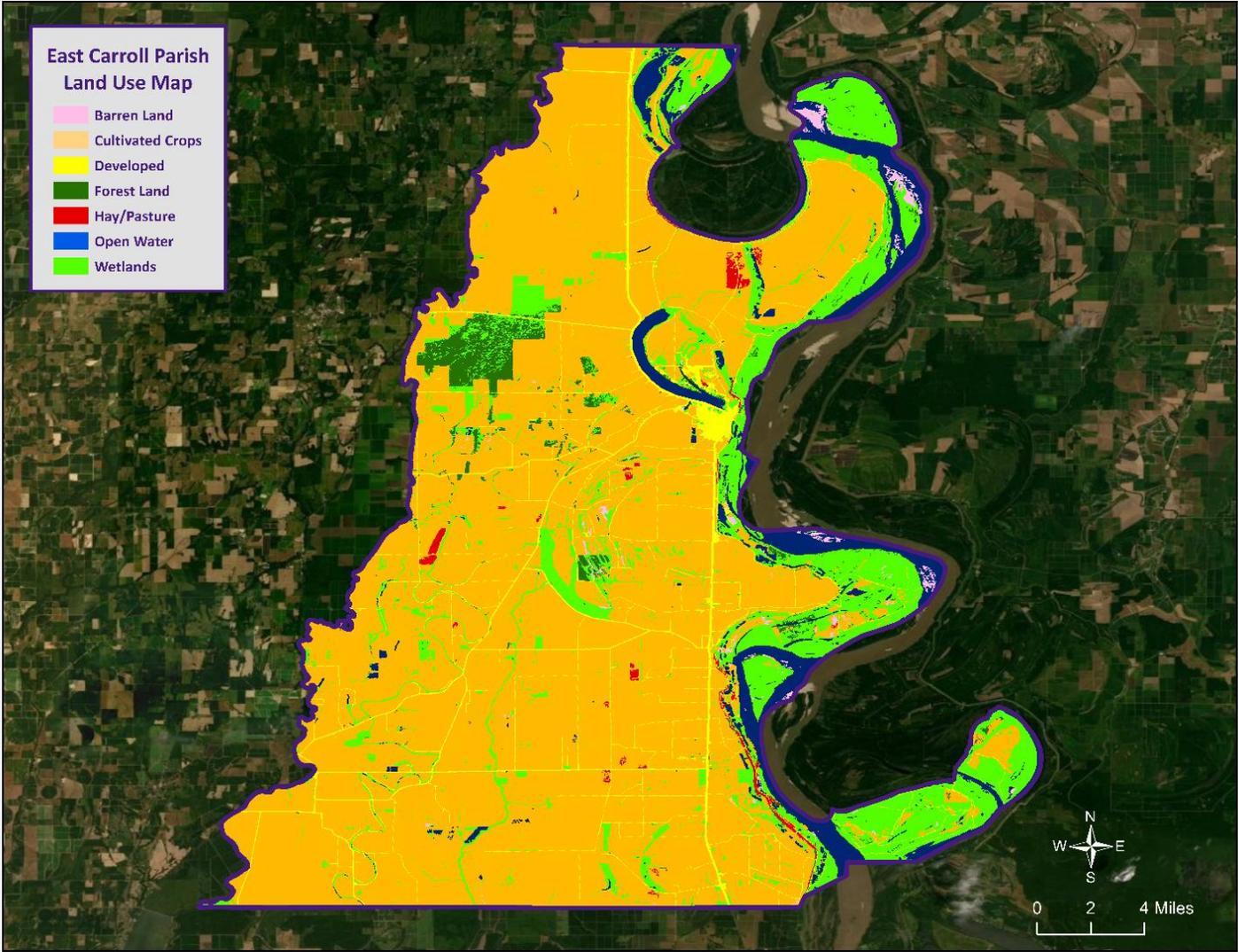
Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Drought	3	2	4	2	3	2.8
Flooding	4	4	3	4	3	3.65
Thunderstorms – Hail	4	2	3	3	1	2.7
Thunderstorms – Lightning	2	2	2	3	1	2
Thunderstorms - Wind	4	2	3	3	1	2.7
Tornadoes	3	3	2	4	3	2.95
Tropical Cyclones	3	4	4	1	4	3.3
Wildfires	1	3	4	1	2	2.25
Winter Storms	2	2	2	4	2	2.3
Levee Failure	1	2	1	4	2	1.85

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

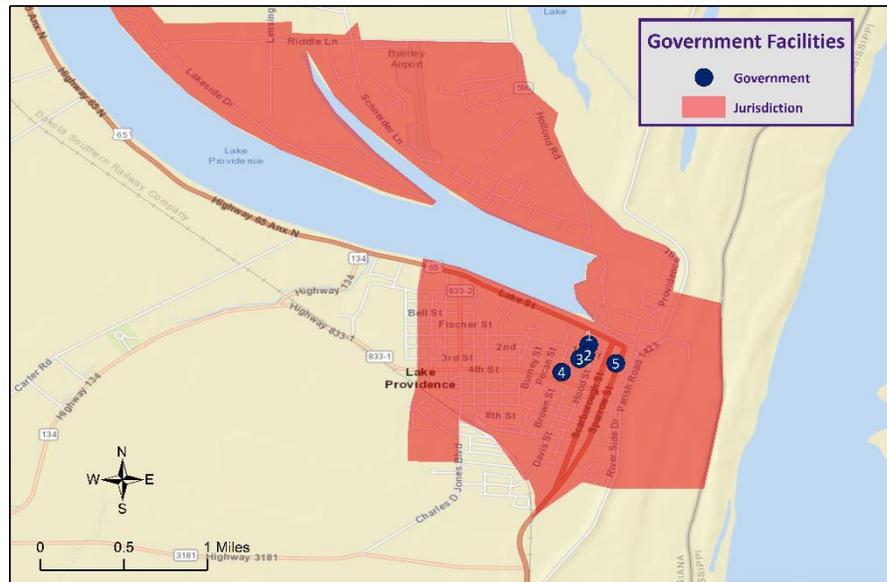
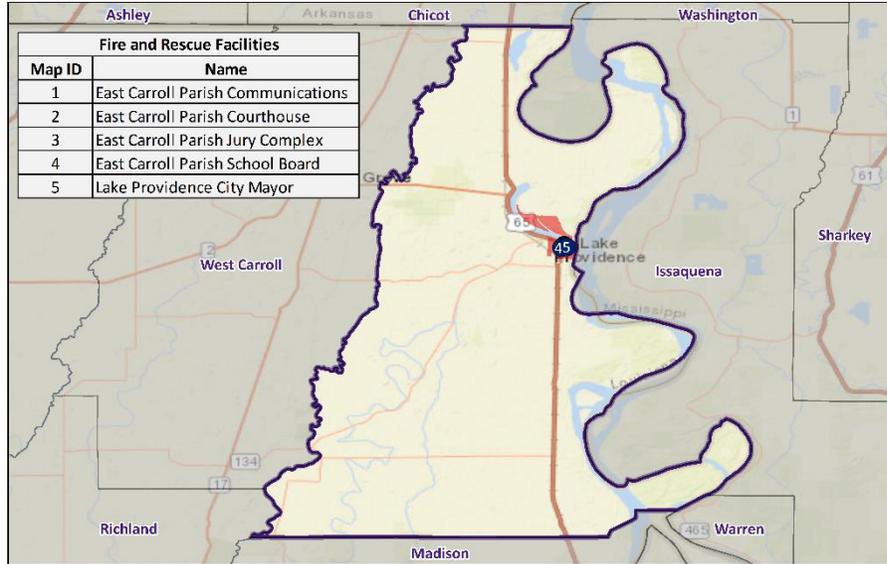


Risk Assessment Maps

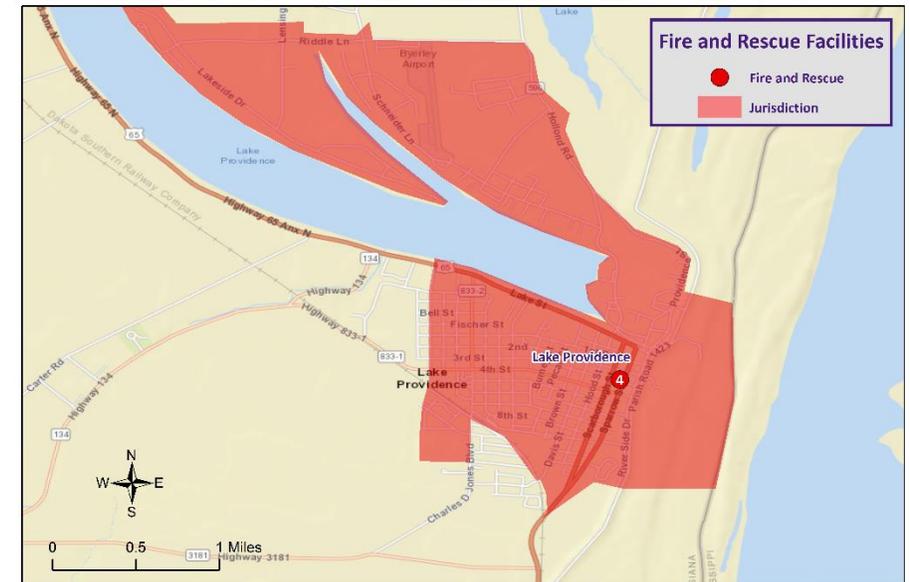
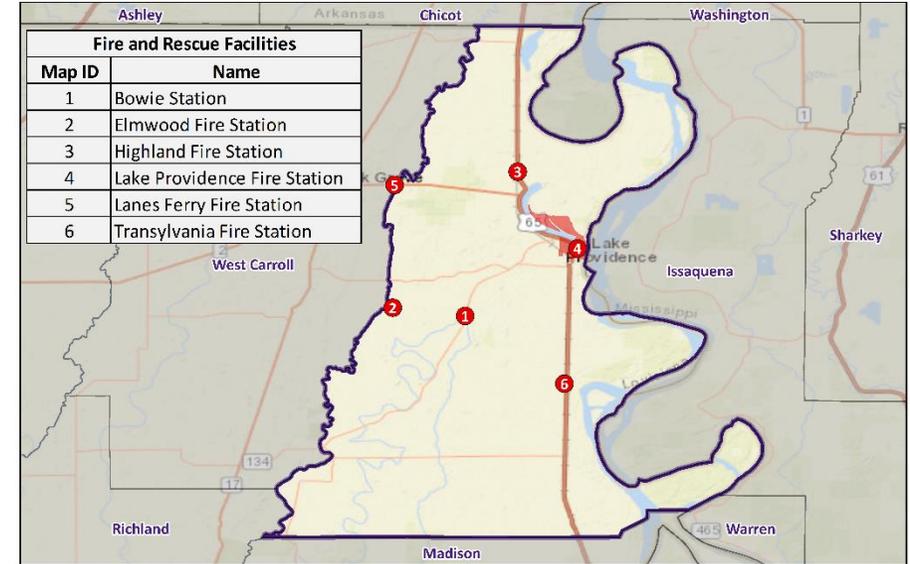
East Carroll Parish Land Use



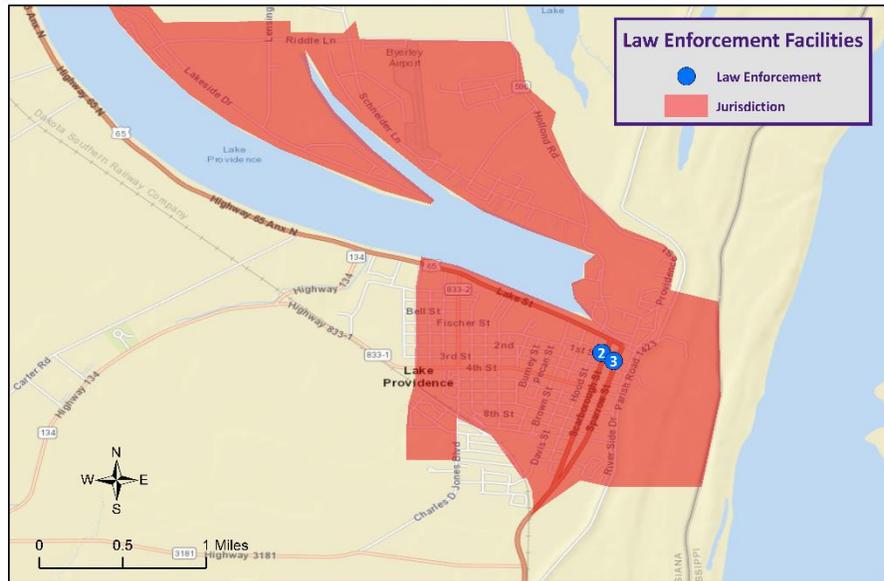
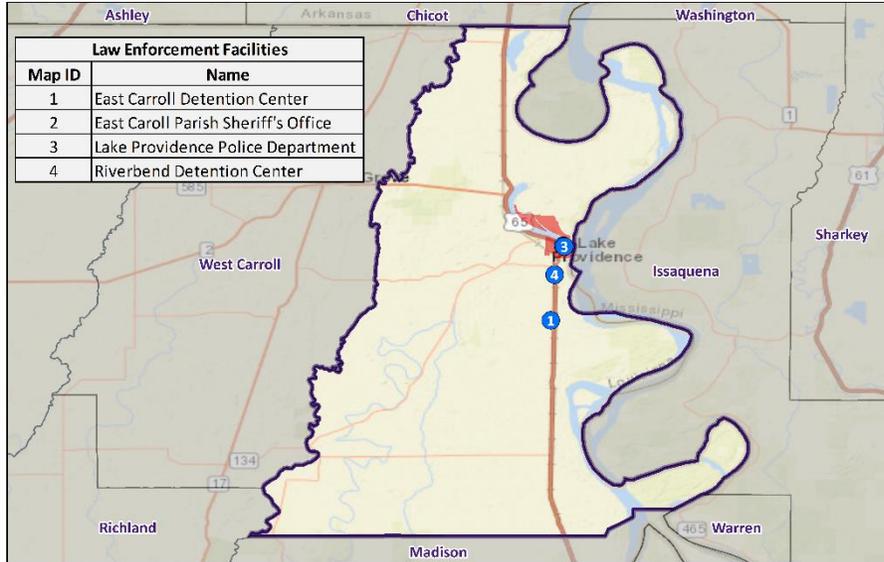
Critical Facilities: Civil Government



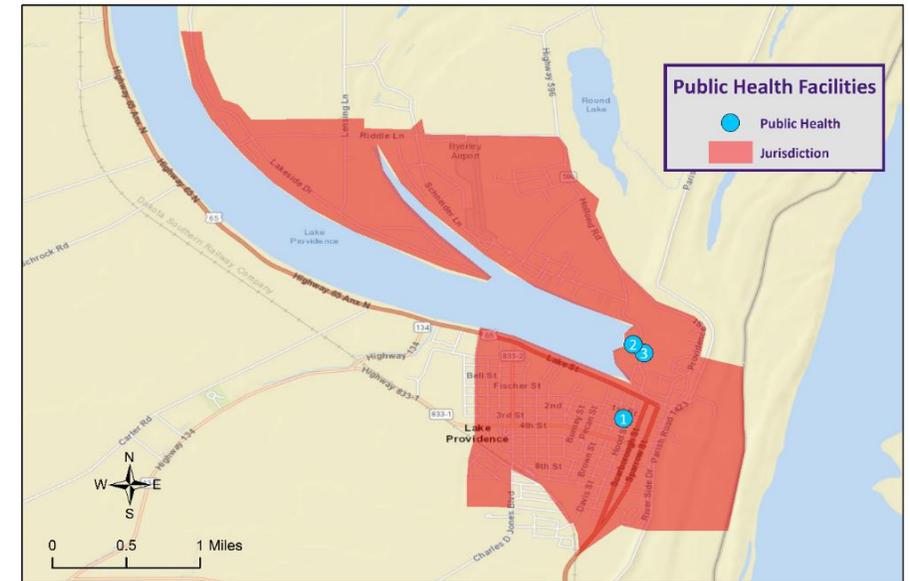
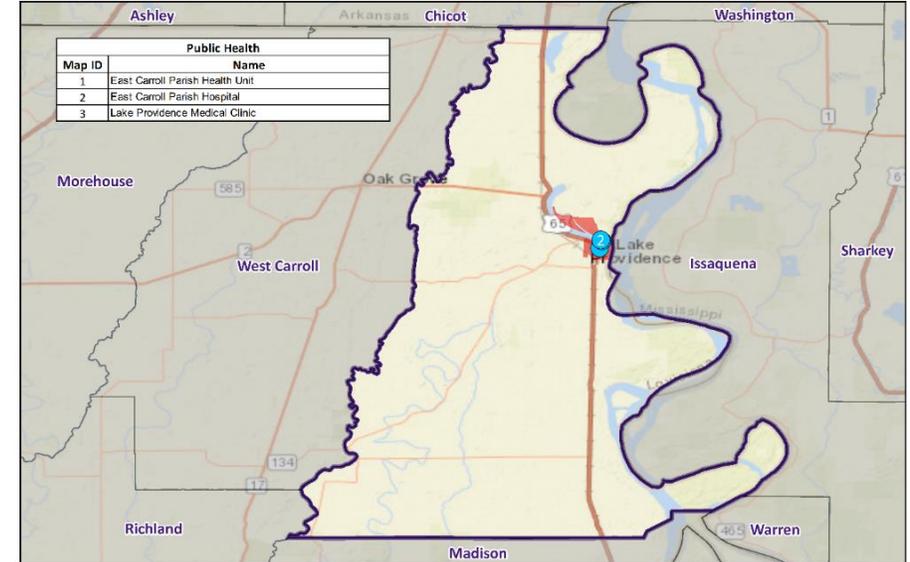
Critical Facilities: Fire & SAR



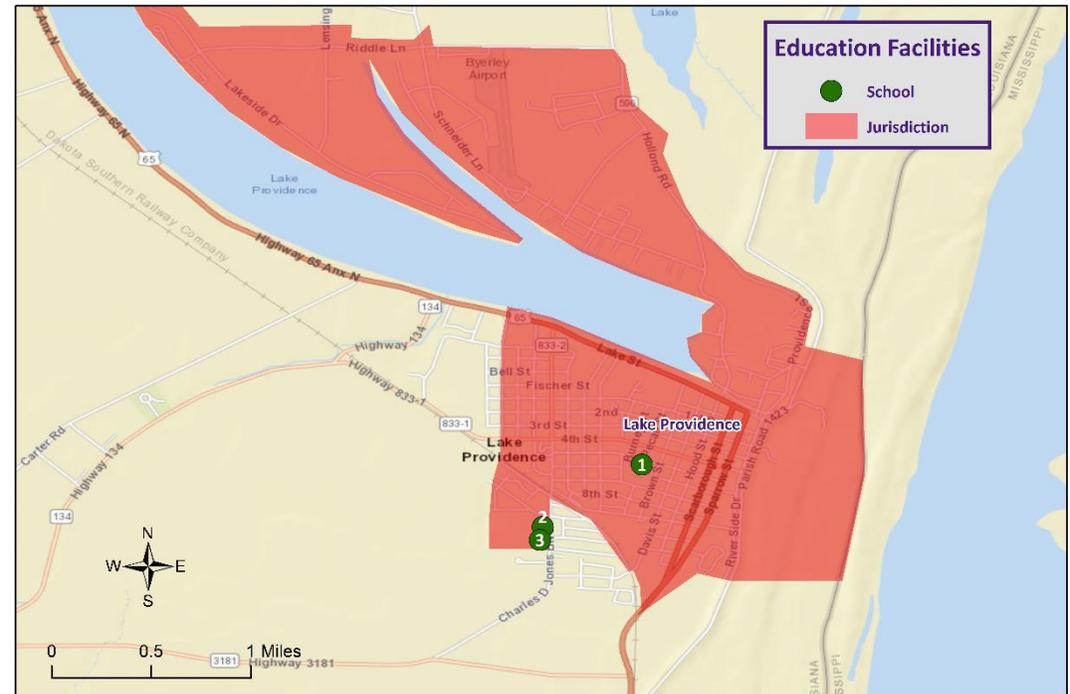
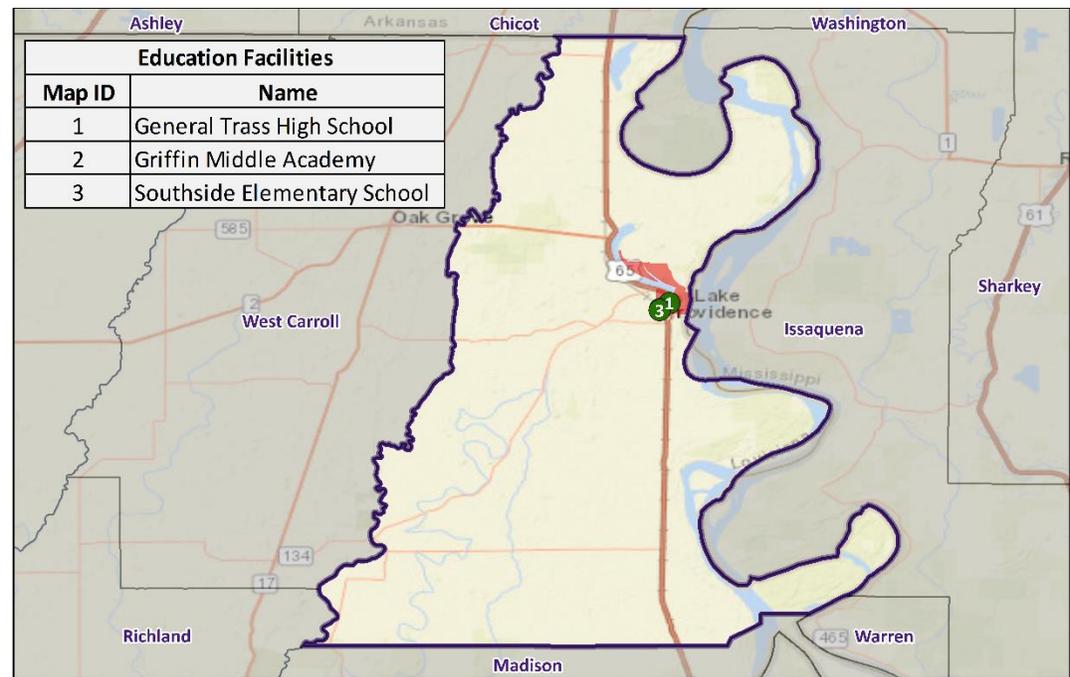
Critical Facilities: Law Enforcement



Critical Facilities: Public Health



Critical Facilities: Education



Drought

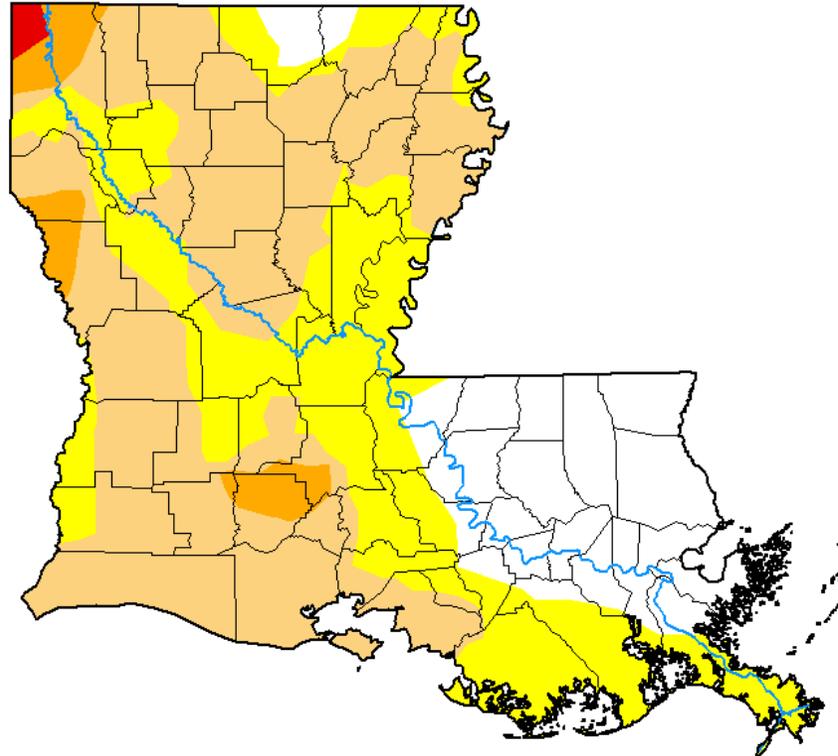


- A drought is a deficiency in water availability over an extended period of time, caused by precipitation totals and soil water storages that do not satisfy the environmental demand for water either by evaporation or transpiration through plant leaves.
- There are four classes of drought:
 - ✓ Meteorological Drought
 - ✓ Hydrologic Drought
 - ✓ Agricultural Drought
 - ✓ Socioeconomic Drought
- Generally, the entire parish will be affected by drought
 - Not limited to one particular location within the parish

Drought Monitor

U.S. Drought Monitor Louisiana

August 2, 2022
(Released Thursday, Aug. 4, 2022)
Valid 8 a.m. EDT



Intensity:

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

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

Author:

Curtis Riganti
National Drought Mitigation Center



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.”

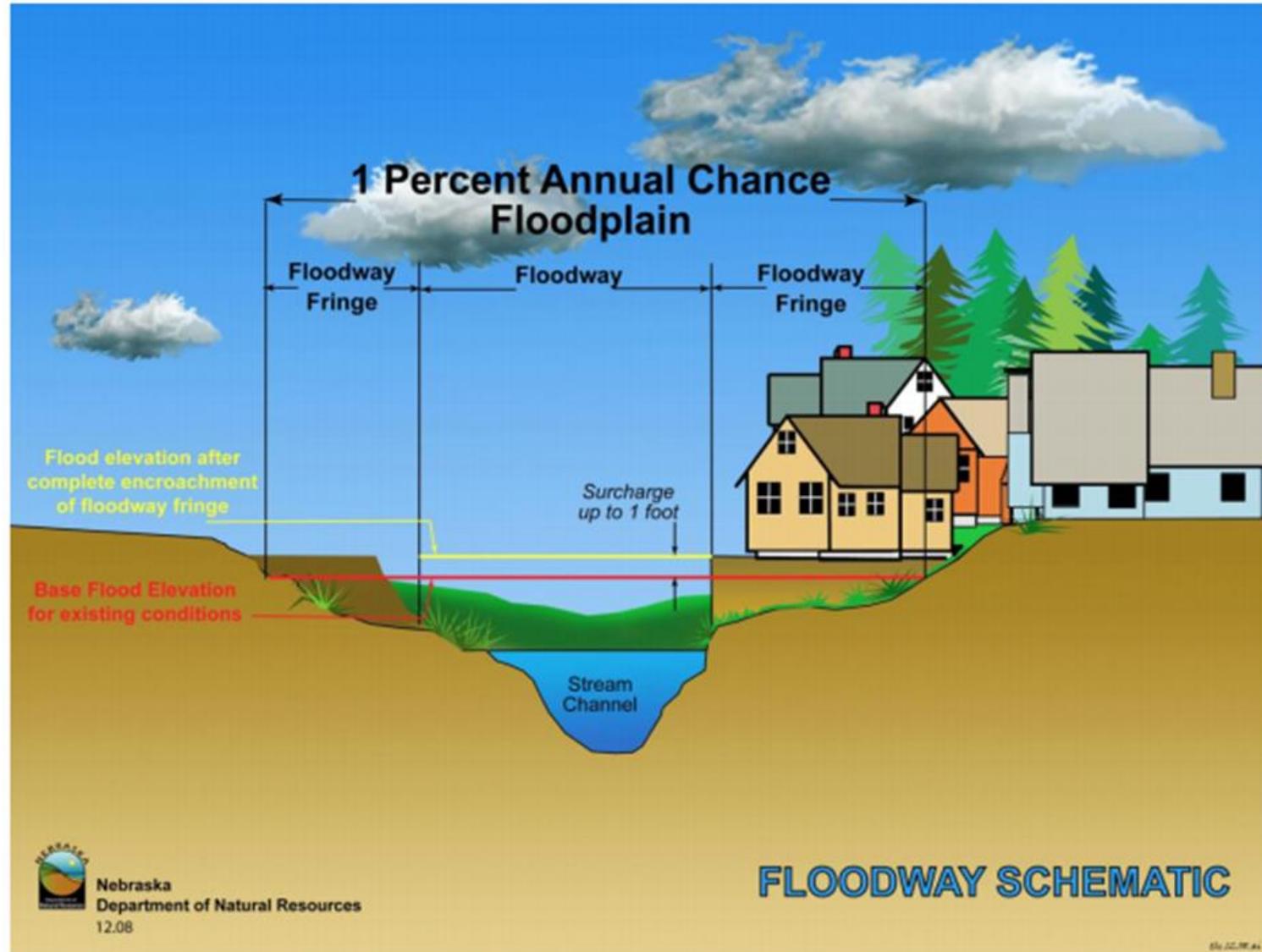
Flooding

Types of flooding may include the following:

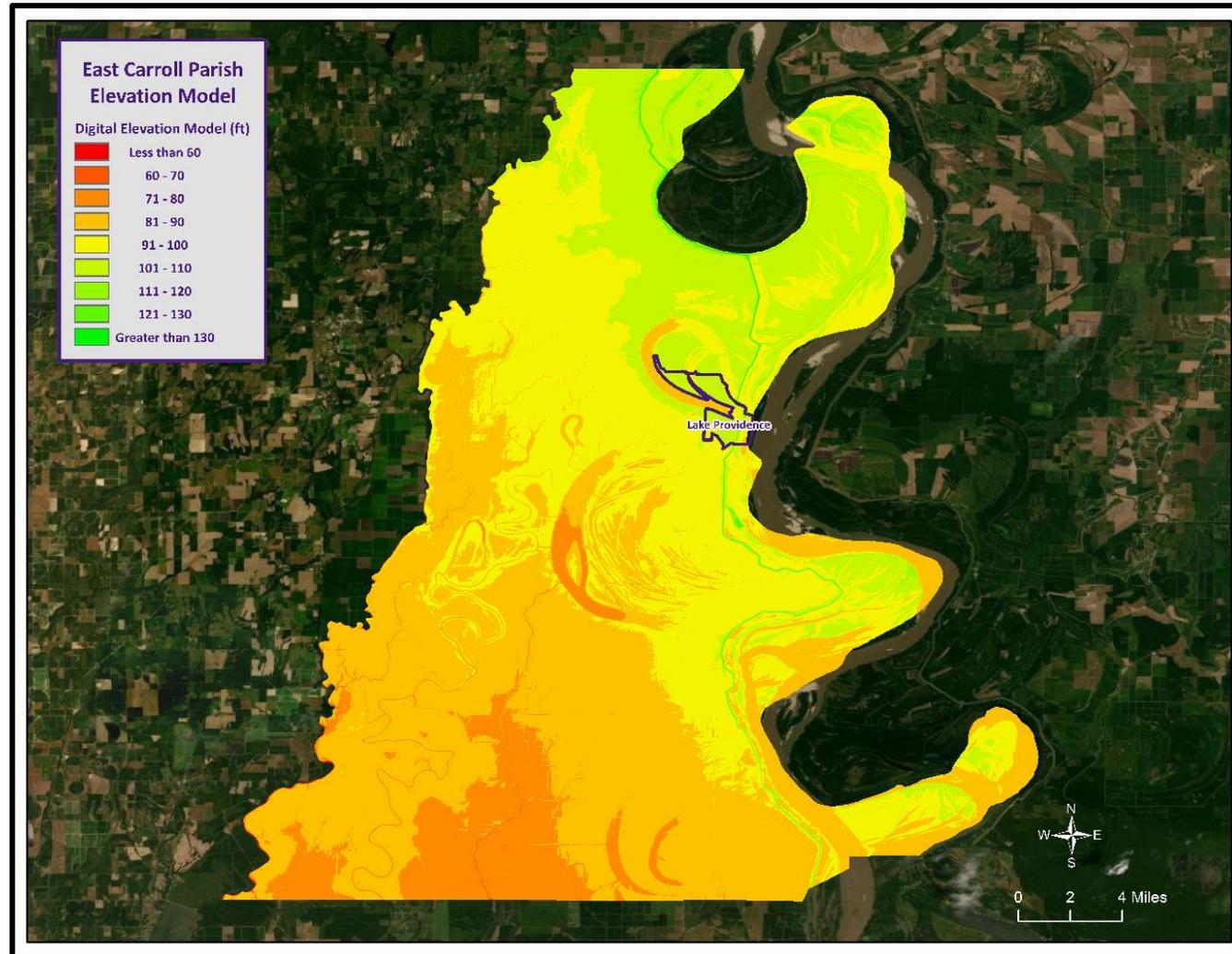
- Riverine
- Flash
- Ponding
- Backwater
- Urban
- Coastal



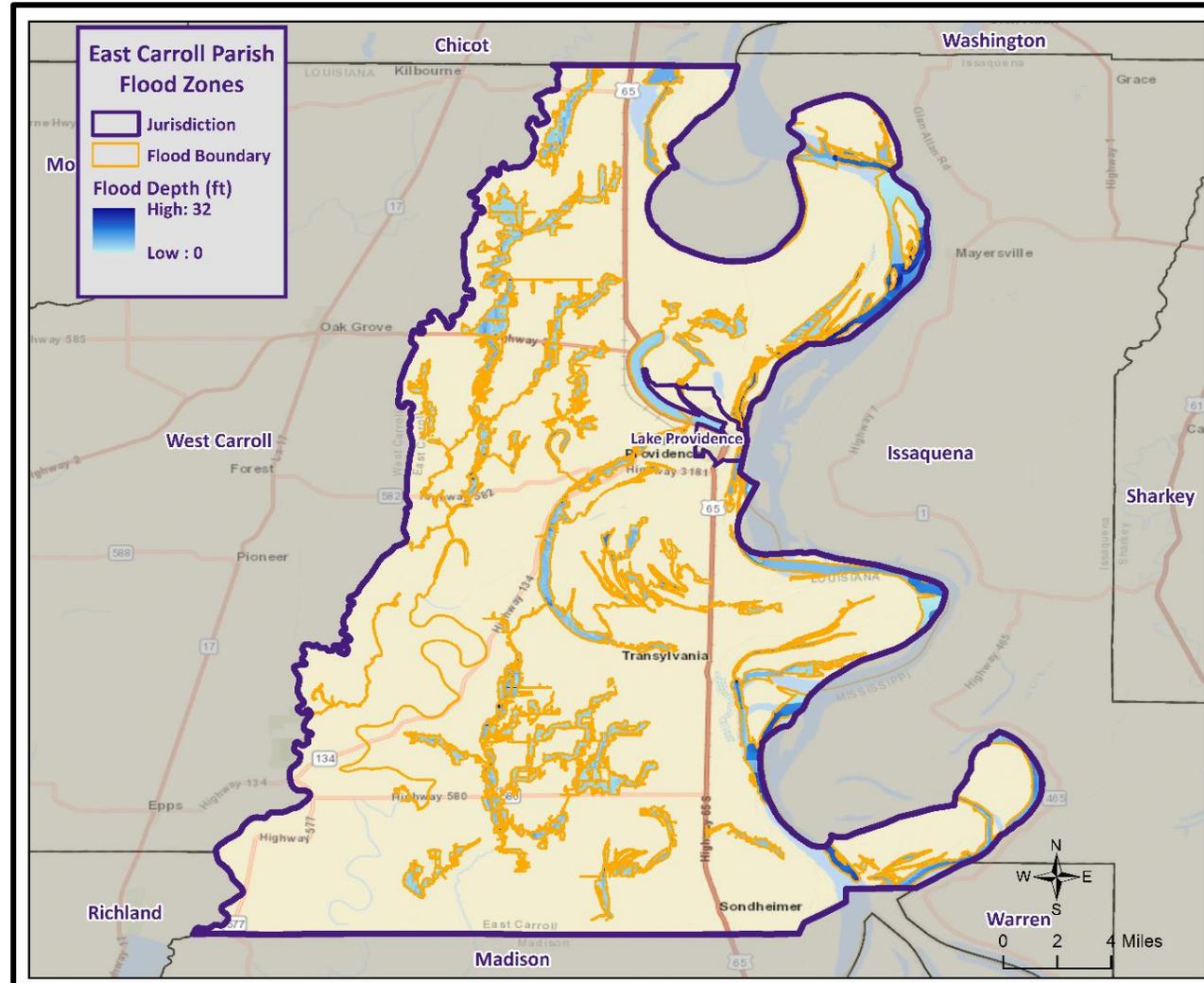
Floodway Diagram



Digital Elevation Model



Franklin Parish Flood Map



Flood Map: Lake Providence

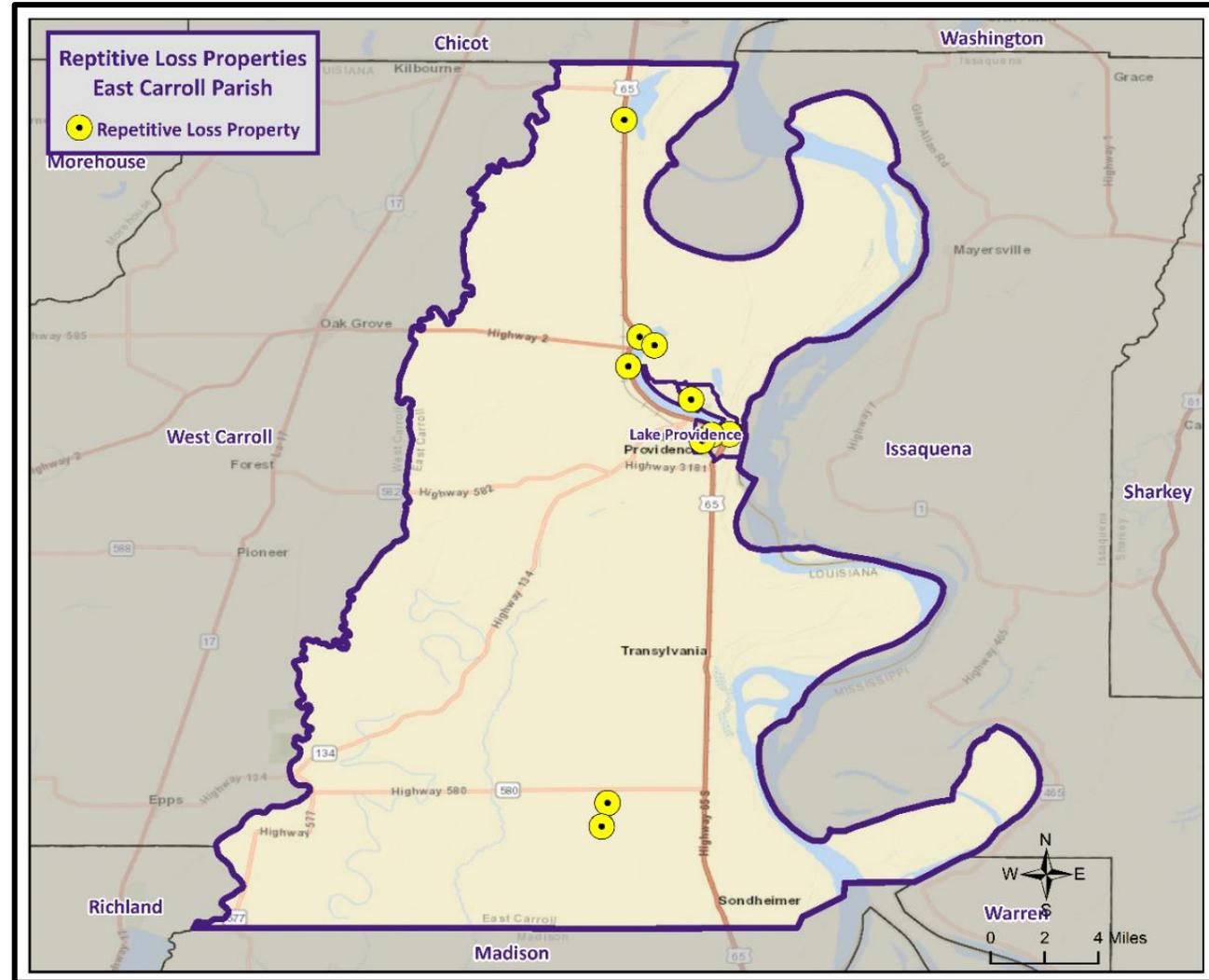


A photograph showing a flooded street. A silver SUV is partially submerged in the water, with only its roof and upper windows visible. In the background, a white semi-truck is driving on the road. The water is murky and reflects the sky. The scene is set in an urban or suburban area with trees and a concrete wall visible.

Repetitive Loss Properties

- 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

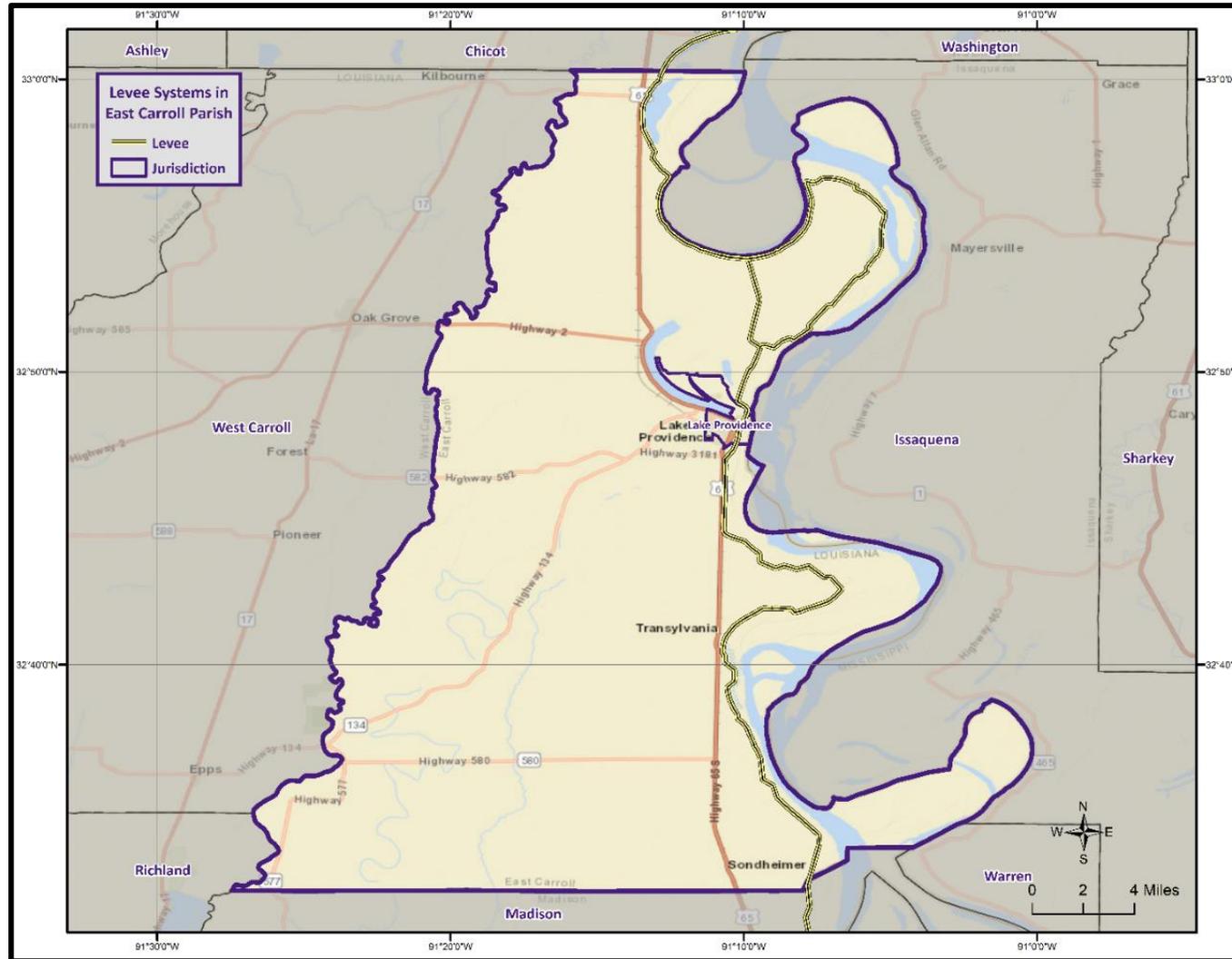


Levee Failure

- 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



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.

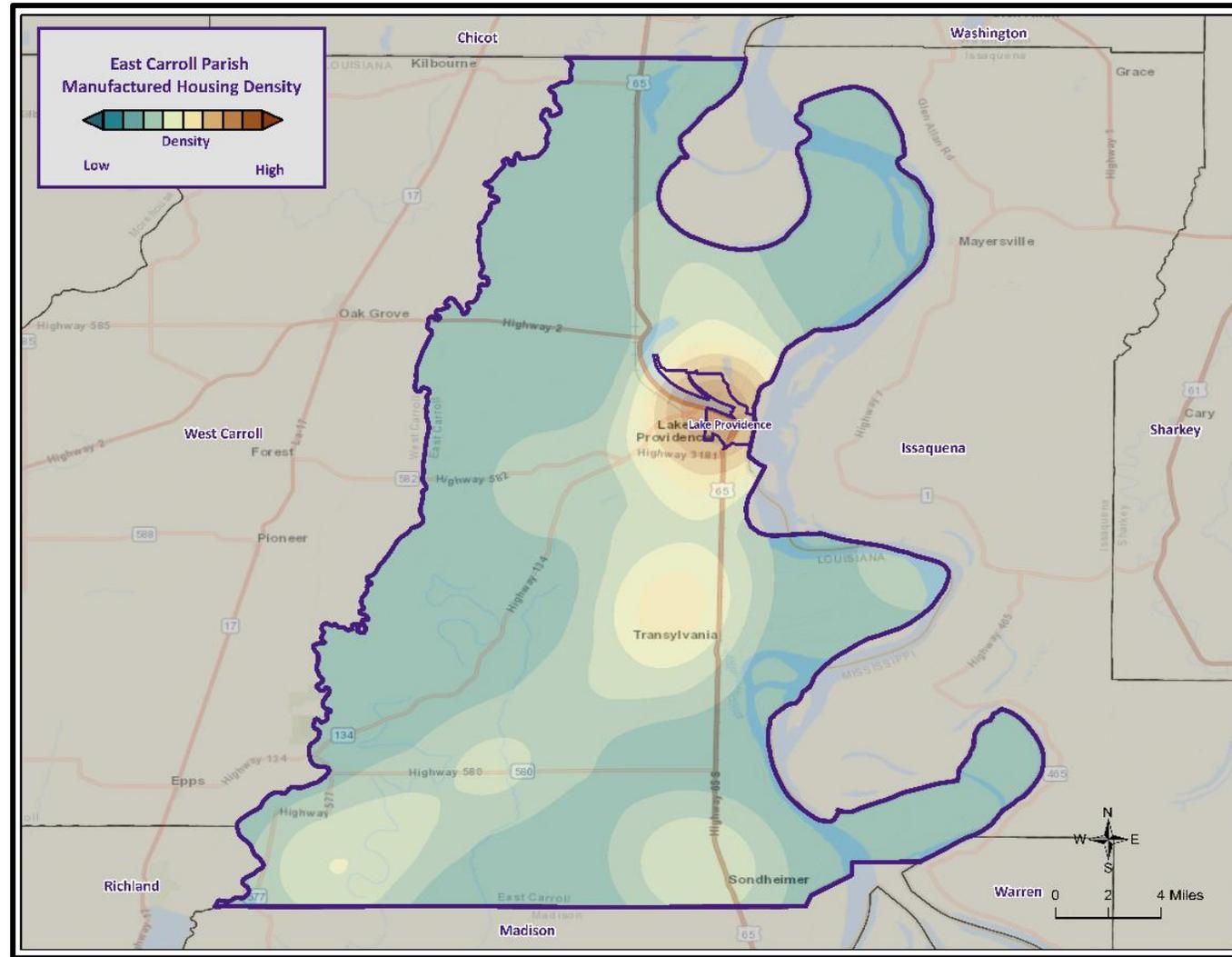
Tornadoes

- 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



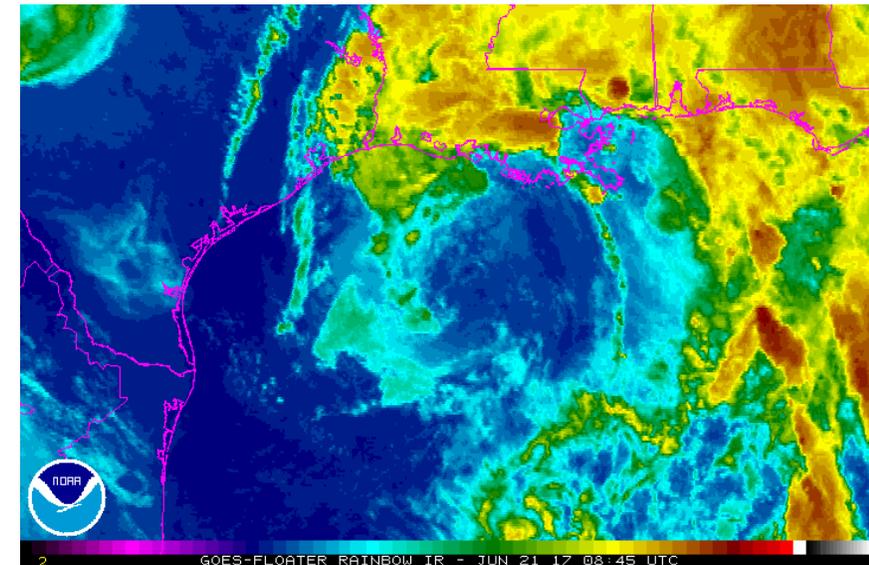
Manufactured Home Density



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.



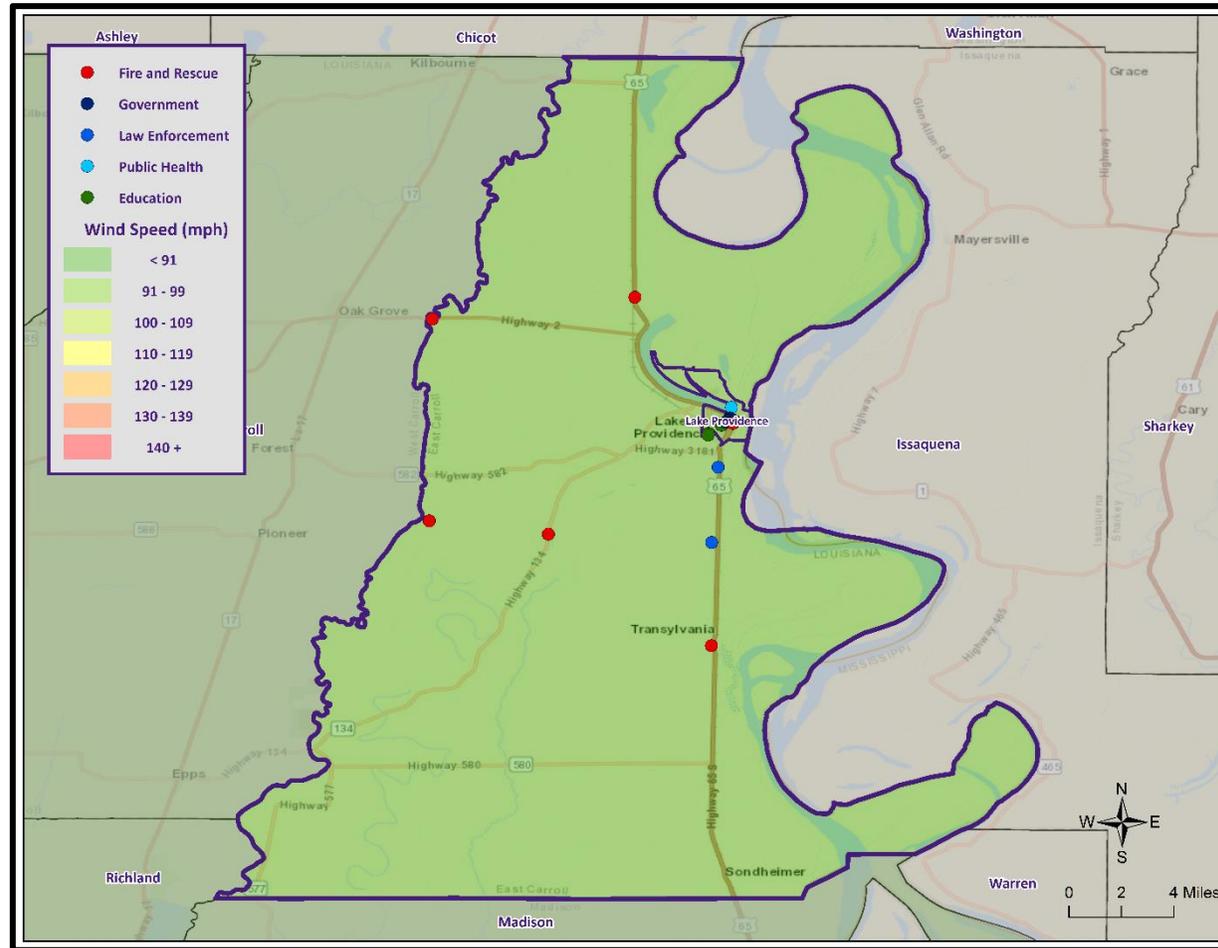


Hurricane Laura



Hurricane Delta

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.

Winter Storms

- 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.



Parish Mitigation Goals

- Protect life and property
- Ensure emergency services
- Increase public preparedness
- Establish and strengthen partnerships for implementation
- Preserve or restore natural resources
- Promote a sustainable economy
- Improve data collection, use, and sharing to reduce the risk from disasters



Parish Hazard Mitigation Project Update

- East Carroll Parish OEP/ Police Jury Discussion

Public Outreach Activity

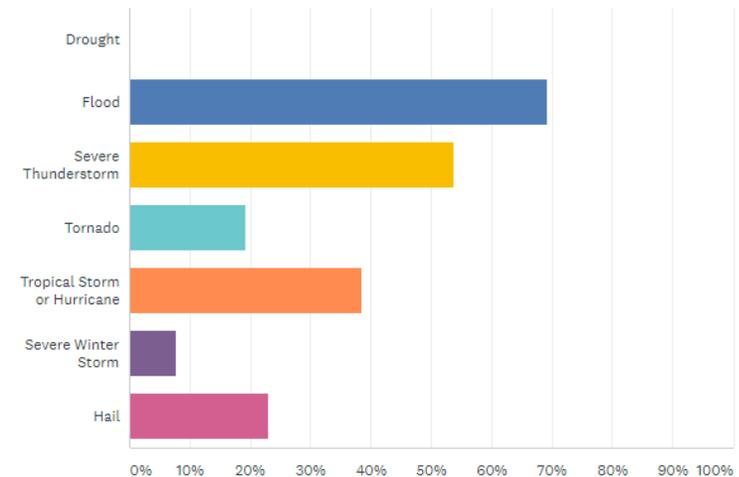
Hazard Mitigation Public Opinion Survey

<https://www.surveymonkey.com/r/EastCarrollHM2022>



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



SDMI Hazard Mitigation Website

The screenshot shows the website interface for East Carroll Parish. At the top, there is the LSU Stephenson Disaster Management Institute logo and a navigation bar with 'SDMI HOME', 'f', and 't' icons. Below this is a yellow 'HAZARD MITIGATION' banner with a sub-navigation bar containing 'Home', 'Calendar', 'Mitigation Resources', and 'Parish Plans'. The main content area is titled 'East Carroll Parish' and includes a 'PLAN DUE DATE: OCTOBER 13 2021' box. A 'DEVELOPMENT STATUS' section features a progress bar with four stages: 'PLAN DEVELOPMENT' (yellow), 'PLAN REVIEW' (purple), 'PLAN ADOPTION' (purple), and 'COMPLETED' (purple). Below the progress bar, specific dates are listed: 'KICKOFF MEETING JAN 2022', 'TBD', 'TBD', and 'TBD'. A 'PARTICIPATING JURISDICTIONS' section lists 'Unincorporated East Carroll Parish' and 'Town of Lake Providence'. A calendar-style list of events includes 'JAN 18 EAST CARROLL KICKOFF MEETING' (Zoom, 10:00 AM - 10:30 AM 1/18/2022) and 'JUN 7 EAST CARROLL INITIAL PLANNING MEETING' (East Carroll Police Jury Meeting Room, 10:30 AM - 11:30 AM 6/7/2022). At the bottom, a 'PREVIOUS PLANNING RESOURCES' section for the year 2016 offers three download links for 'EAST CARROLL HM PLAN', 'EAST CARROLL PARISH KICK OFF MEETING', and 'EAST CARROLL PARISH PUBLIC MEETING'.

- Repository for materials used during update process
- <https://hmplans.sdmi.lsu.edu/Home/Parish/east-carroll>

Contact Us

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