2026 Lafourche Parish Hazard Mitigation Plan Update

Public Meeting

October 1, 2025

Parish LAFOURCHE Government

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Agenda

Introductions

Hazard Mitigation & Planning Process

Hazard Identification & Risk Assessment Review

Public Outreach Activities

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Introductions

- **Stephenson Disaster Management Institute (SDMI)**
  - Chris Rippetoe – Hazard Mitigation Program Manager
  - Jason Martin – Emergency Management Analyst
- **Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP)**
  - Marion Pearson – Program Coordinator
  - Lennie LaFleur – Preparedness Program Specialist
- **Lafourche Parish**
  - Chris Boudreaux – Lafourche Parish OHSEP Director
  - Kristi Lumpkin – Grants and Economic Development Director

Who is SDMI?

- Stephenson Disaster Management Institute (SDMI) at Louisiana State University
- Non-Academic, Applied Research Unit on campus
- Specialize in providing programmatic support and decision making tools for state and local emergency managers
  - Hazard Mitigation Plans
  - Emergency Operations Plans
  - Geographic Information Systems
  - Application Development
  - Data Visualization
  - Aerial Imagery Collection/Processing

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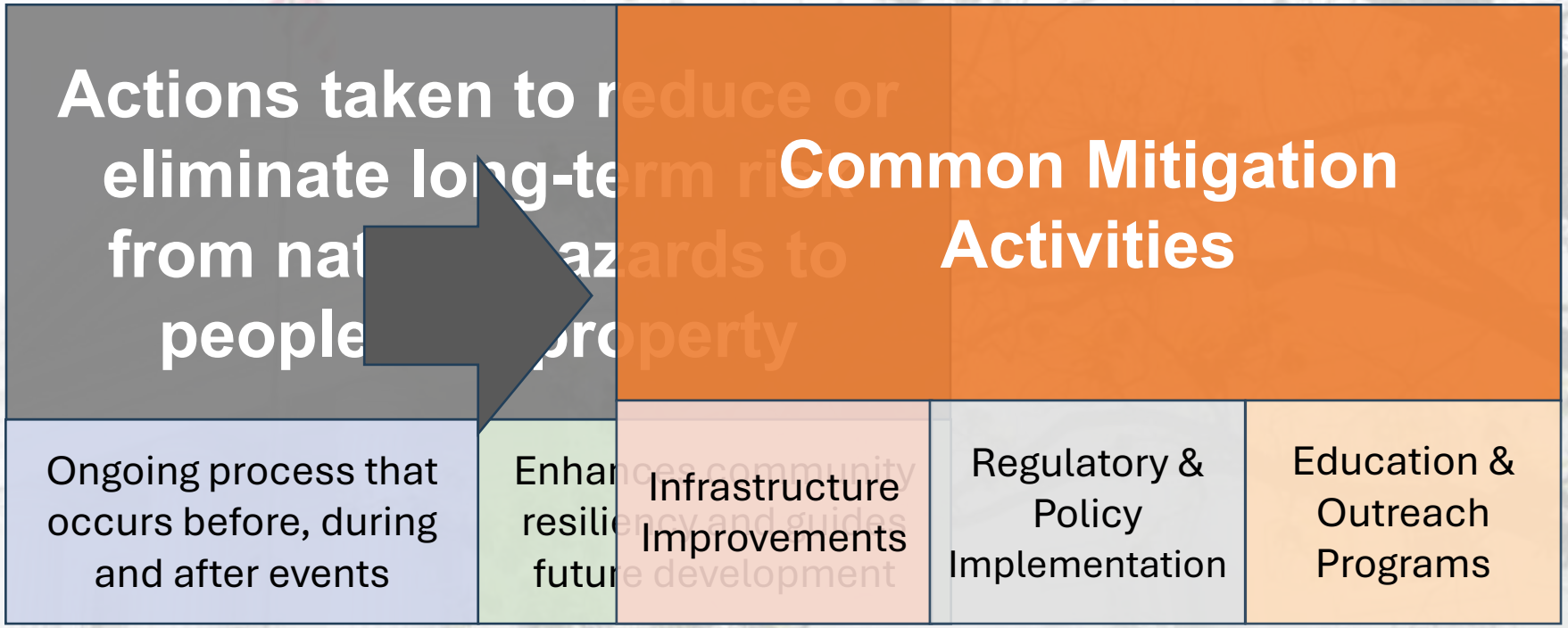
What Is Hazard Mitigation?



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Why Have A Hazard Mitigation Plan

Planning efforts help communities become more resilient and sustainable

- Provides platform for input from diverse group of stakeholders
- Identifies most prevalent hazards in the community
- Outlines a strategy to protect community from hazards

Maintains community eligibility for federal post-disaster mitigation funding

- Disaster Mitigation Act (DMA) of 2000 Section 322
- Title 44 Code of Federal Regulations (CFR) §201.6
- **No Plan = No Mitigation Money = No Project Funding!**

Hazard Mitigation Planning is a process that identifies natural hazard risks and develops strategies to reduce these risks

Plan Update Process

Hazard Mitigation Plan Requirements

Must include a robust planning committee/ stakeholder group

- Incorporated jurisdictions
- Local/parish agencies
- Local business/ industry
- Underserved populations

Must identify and evaluate the risk from natural hazards

- Types/sources of hazards
- Location/extent
- Impacts on community
- Previous occurrences
- Potential for future events

Must outline strategy for reducing impacts for identified risks

- Set clear goals/ objectives
- Identify actions or projects
- Establish timelines, responsible parties & funding sources

Must be formally adopted by all participating jurisdictions

- All HM plans in LA are multi-jurisdictional
- Administered at parish level
- Incorporated communities within parish must also adopt

Must be updated and receive FEMA approval every five years

- Reassess risks, vulnerabilities & mitigation strategy
- Must reflect changes in conditions & development

Hazard Identification and Risk Assessment

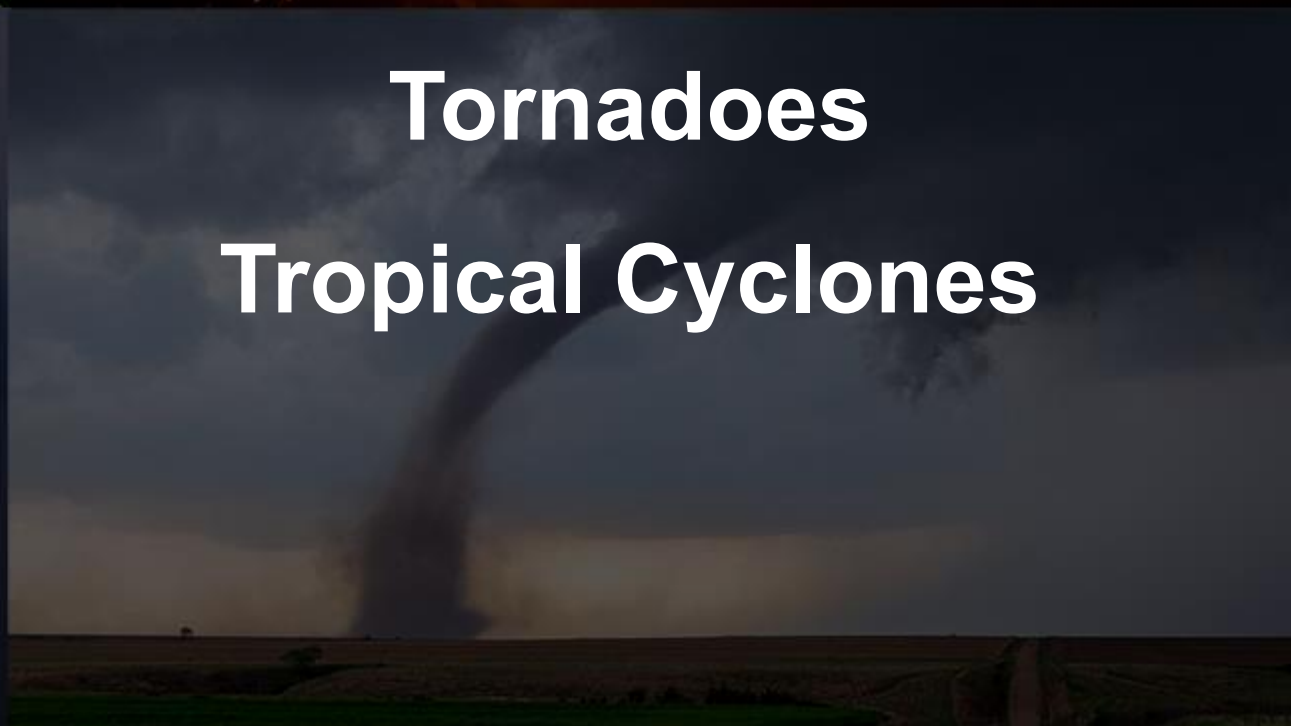
- The plan includes descriptions of the natural hazards that affect the parish planning area.

- 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

Hazard Identification And Risk Assessment



Risk Matrix for Lafourche Parish

	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Coastal Hazards	4	2	4	1	2	**2.75**
Flooding	3	4	3	4	3	**3.4**
Sinkholes	1	2	2	1	4	**1.9**
Thunderstorms – Hail	3	2	3	3	1	**2.45**
Thunderstorms – Lightning	3	2	2	3	1	**2.25**
Thunderstorms – Winds	4	2	3	3	1	**2.7**
Tornadoes	3	3	2	4	3	**2.95**
Tropical Cyclones	3	4	4	1	4	**3.3**

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

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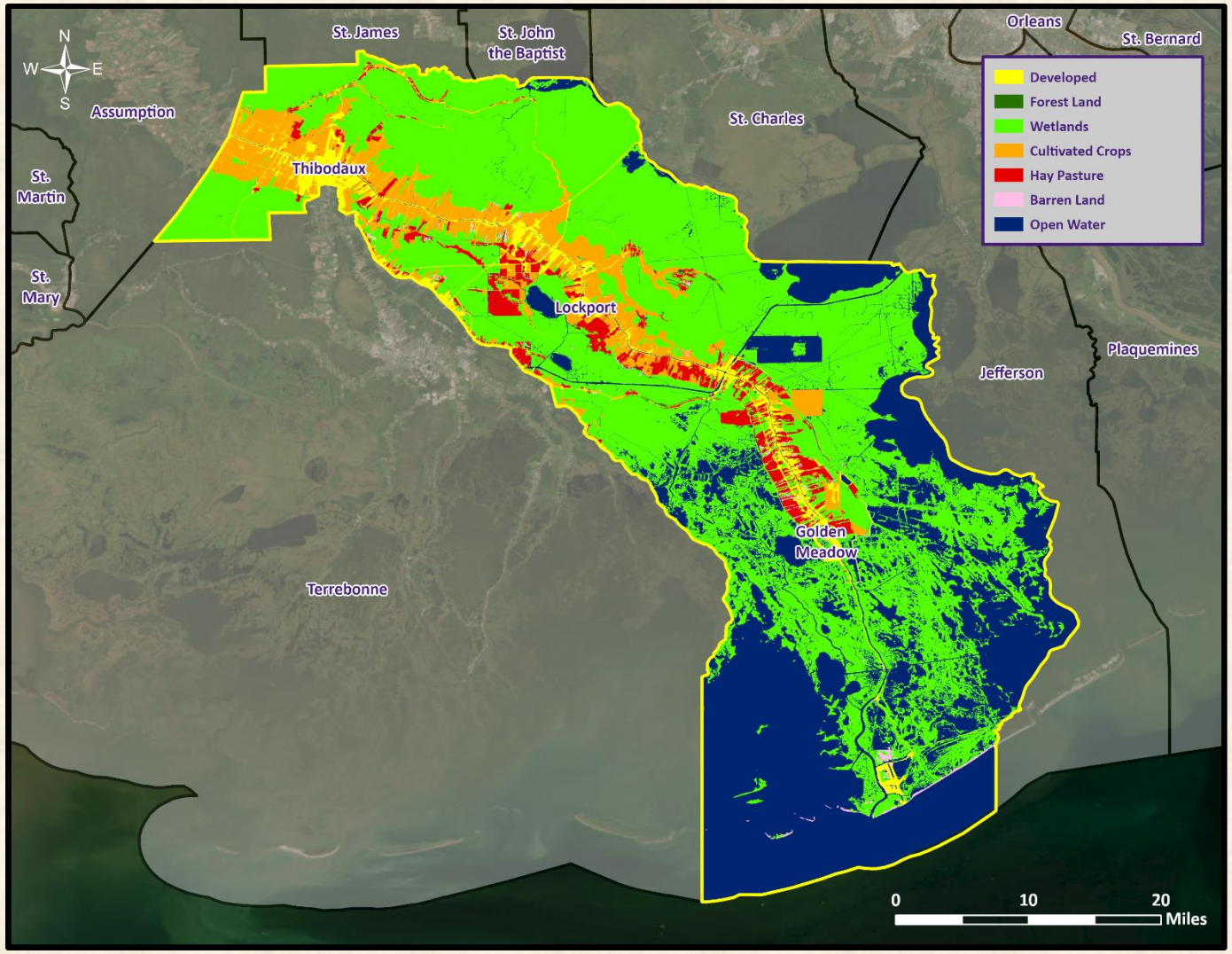
Risk Assessment Maps

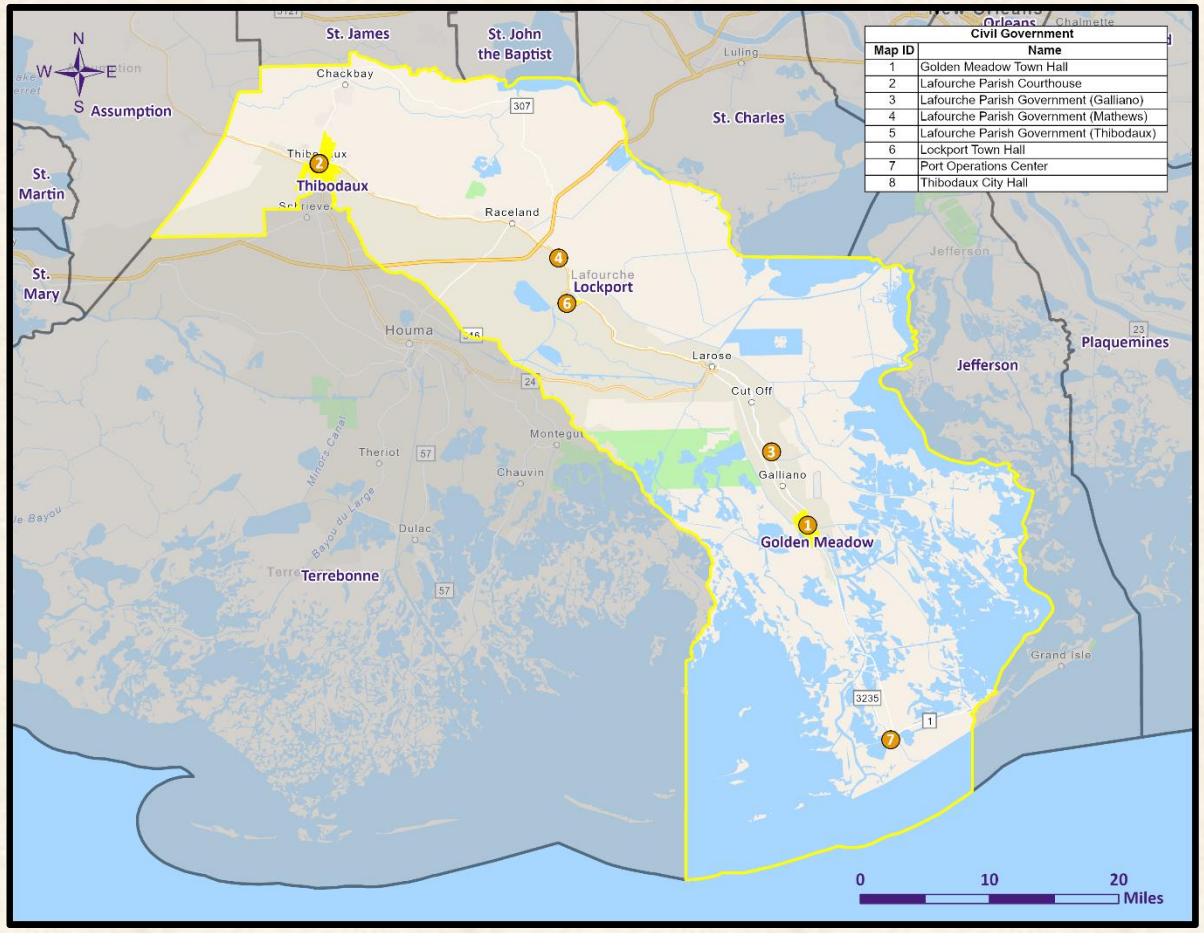
Lafourche Parish Land Use



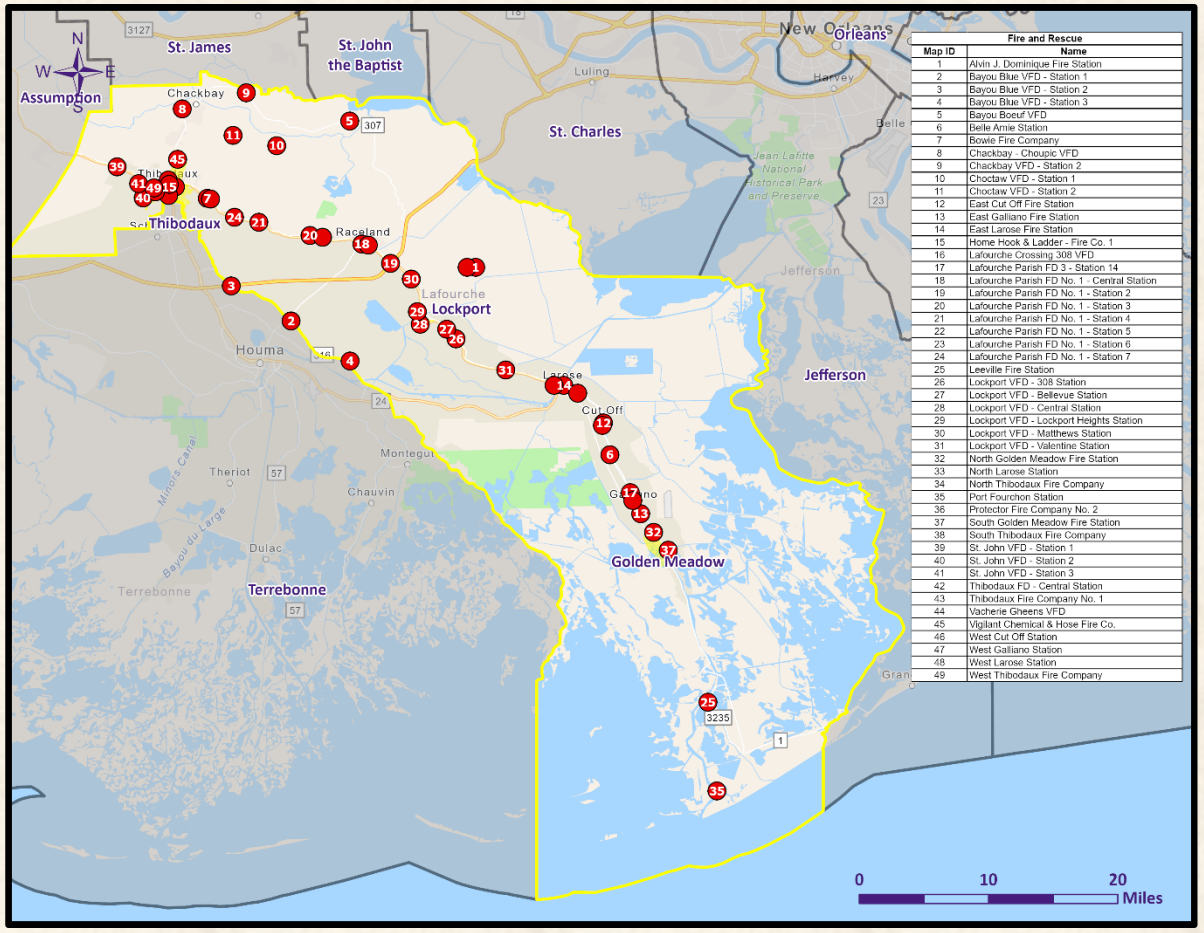
Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	102,961	26%
Wetlands	223,334	56%
Forest Land (Not including forested wetlands)	3,815	1%
Urban/Development	31,446	8%
Water	37,220	9%

Source: USGS Land Use Map

Lafourche Parish Critical Facilities



Civil Government	
Map ID	Name
1	Golden Meadow Town Hall
2	Lafourche Parish Courthouse
3	Lafourche Parish Government (Galliano)
4	Lafourche Parish Government (Mathews)
5	Lafourche Parish Government (Thibodaux)
6	Lockport Town Hall
7	Port Operations Center
8	Thibodaux City Hall

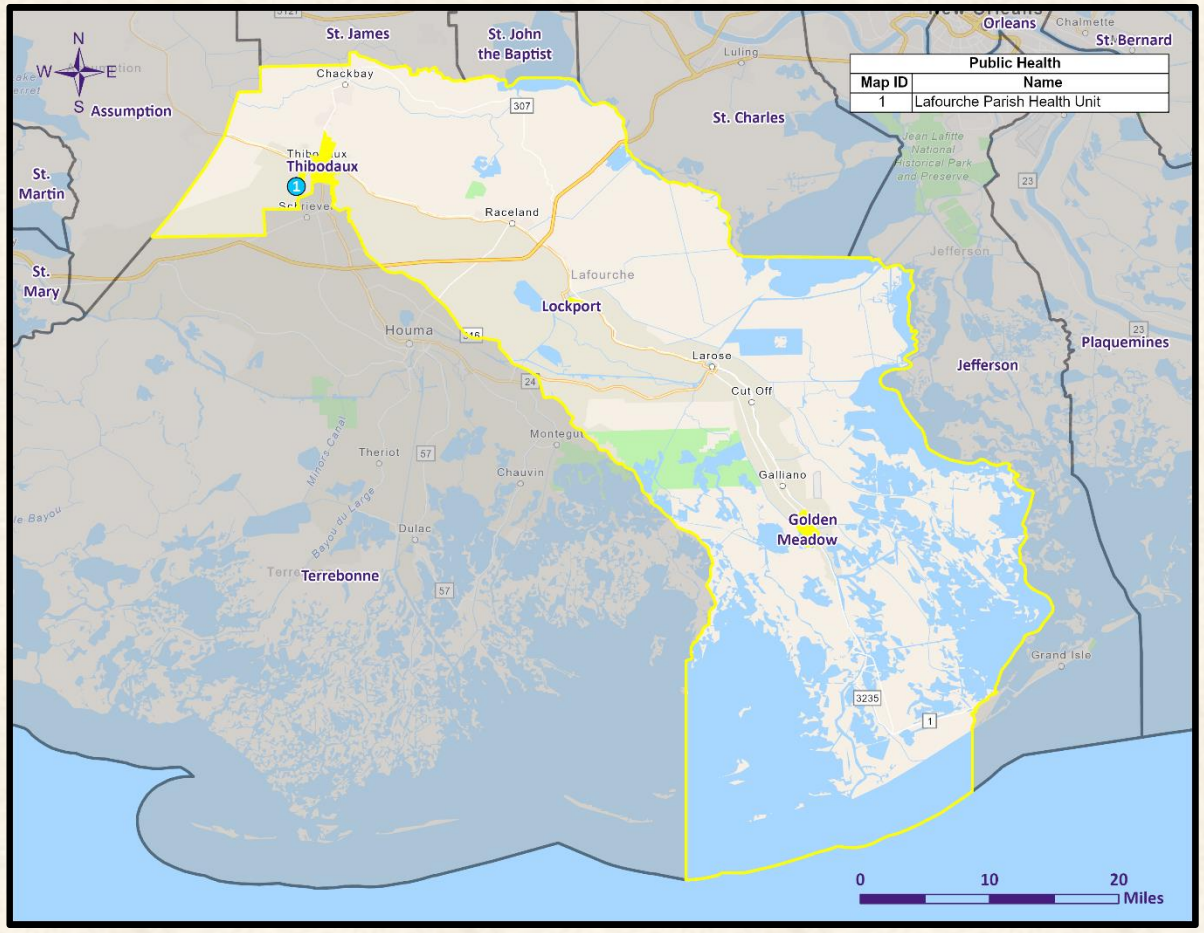


Fire and Rescue	
Map ID	Name
1	Alvin J. Dominique Fire Station
2	Bayou Blue VFD - Station 1
3	Bayou Blue VFD - Station 2
4	Bayou Blue VFD - Station 3
5	Bayou Boeuf VFD
6	Belle Amie Station
7	Bowie Fire Company
8	Chackbay - Choupic VFD
9	Chackbay VFD - Station 2
10	Choctaw VFD - Station 1
11	Choctaw VFD - Station 2
12	East Cut Off Fire Station
13	East Galliano Fire Station
14	East Larose Fire Station
15	Home Hook & Ladder - Fire Co. 1
16	Lafourche Crossing 308 VFD
17	Lafourche Parish FD 3 - Station 14
18	Lafourche Parish FD No. 1 - Central Station
19	Lafourche Parish FD No. 1 - Station 2
20	Lafourche Parish FD No. 1 - Station 3
21	Lafourche Parish FD No. 1 - Station 4
22	Lafourche Parish FD No. 1 - Station 5
23	Lafourche Parish FD No. 1 - Station 6
24	Lafourche Parish FD No. 1 - Station 7
25	Leeville Fire Station
26	Lockport VFD - 308 Station
27	Lockport VFD - Bellevue Station
28	Lockport VFD - Central Station
29	Lockport VFD - Lockport Heights Station
30	Lockport VFD - Matthews Station
31	Lockport VFD - Valentine Station
32	North Golden Meadow Fire Station
33	North Larose Station
34	North Thibodaux Fire Company
35	Port Fourchon Station
36	Protector Fire Company No. 2
37	South Golden Meadow Fire Station
38	South Thibodaux Fire Company
39	St. John VFD - Station 1
40	St. John VFD - Station 2
41	St. John VFD - Station 3
42	Thibodaux FD - Central Station
43	Thibodaux Fire Company No. 1
44	Vacherie Gheens VFD
45	Vigilant Chemical & Hose Fire Co.
46	West Cut Off Station
47	West Galliano Station
48	West Larose Station
49	West Thibodaux Fire Company

Civil Government

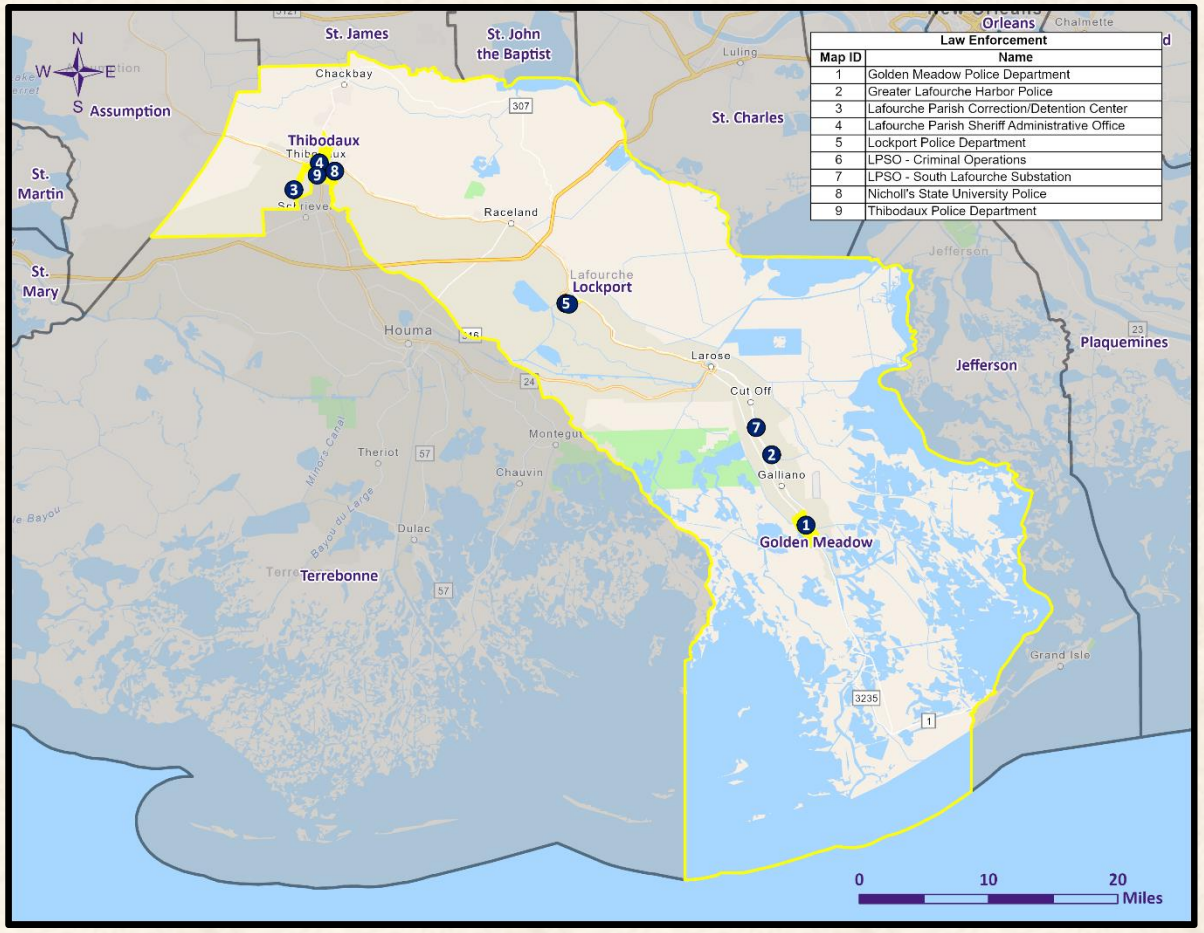
Fire & SAR

Lafourche Parish Critical Facilities



Public Health	
Map ID	Name
1	Lafourche Parish Health Unit

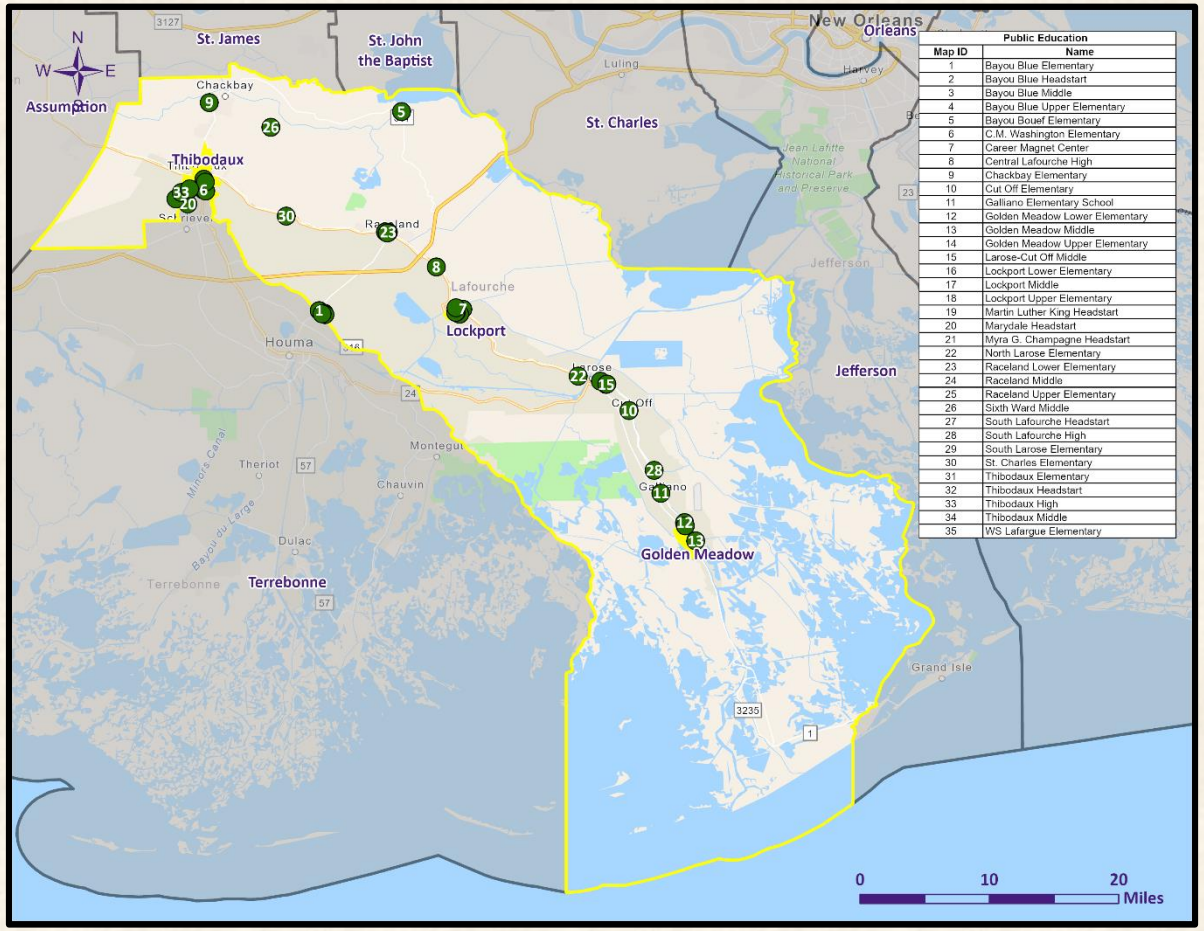
Public Health



Law Enforcement	
Map ID	Name
1	Golden Meadow Police Department
2	Greater Lafourche Harbor Police
3	Lafourche Parish Correction/Detention Center
4	Lafourche Parish Sheriff Administrative Office
5	Lockport Police Department
6	LPSO - Criminal Operations
7	LPSO - South Lafourche Substation
8	Nicholl's State University Police
9	Thibodaux Police Department

Law Enforcement

Lafourche Parish Critical Facilities



Public Education	
Map ID	Name
1	Bayou Blue Elementary
2	Bayou Blue Headstart
3	Bayou Blue Middle
4	Bayou Blue Upper Elementary
5	Bayou Bouef Elementary
6	C.M. Washington Elementary
7	Career Magnet Center
8	Central Lafourche High
9	Chackbay Elementary
10	Cut Off Elementary
11	Galliano Elementary School
12	Golden Meadow Lower Elementary
13	Golden Meadow Middle
14	Golden Meadow Upper Elementary
15	Larose-Cut Off Middle
16	Lockport Lower Elementary
17	Lockport Middle
18	Lockport Upper Elementary
19	Martin Luther King Headstart
20	Marydale Headstart
21	Myra G. Champagne Headstart
22	North Larose Elementary
23	Raceland Lower Elementary
24	Raceland Middle
25	Raceland Upper Elementary
26	Sixth Ward Middle
27	South Lafourche Headstart
28	South Lafourche High
29	South Larose Elementary
30	St. Charles Elementary
31	Thibodaux Elementary
32	Thibodaux Headstart
33	Thibodaux High
34	Thibodaux Middle
35	WS Lafargue Elementary

Public Education

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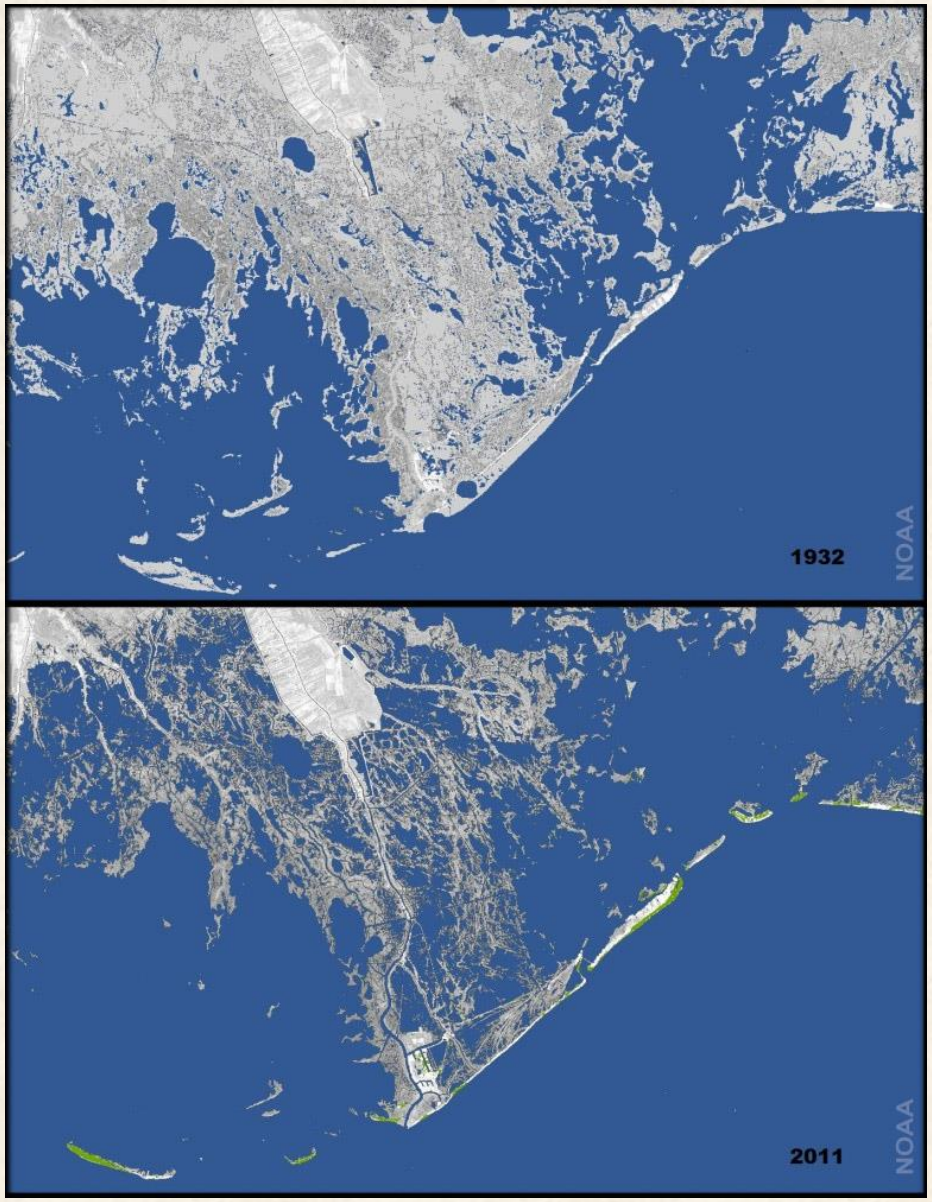
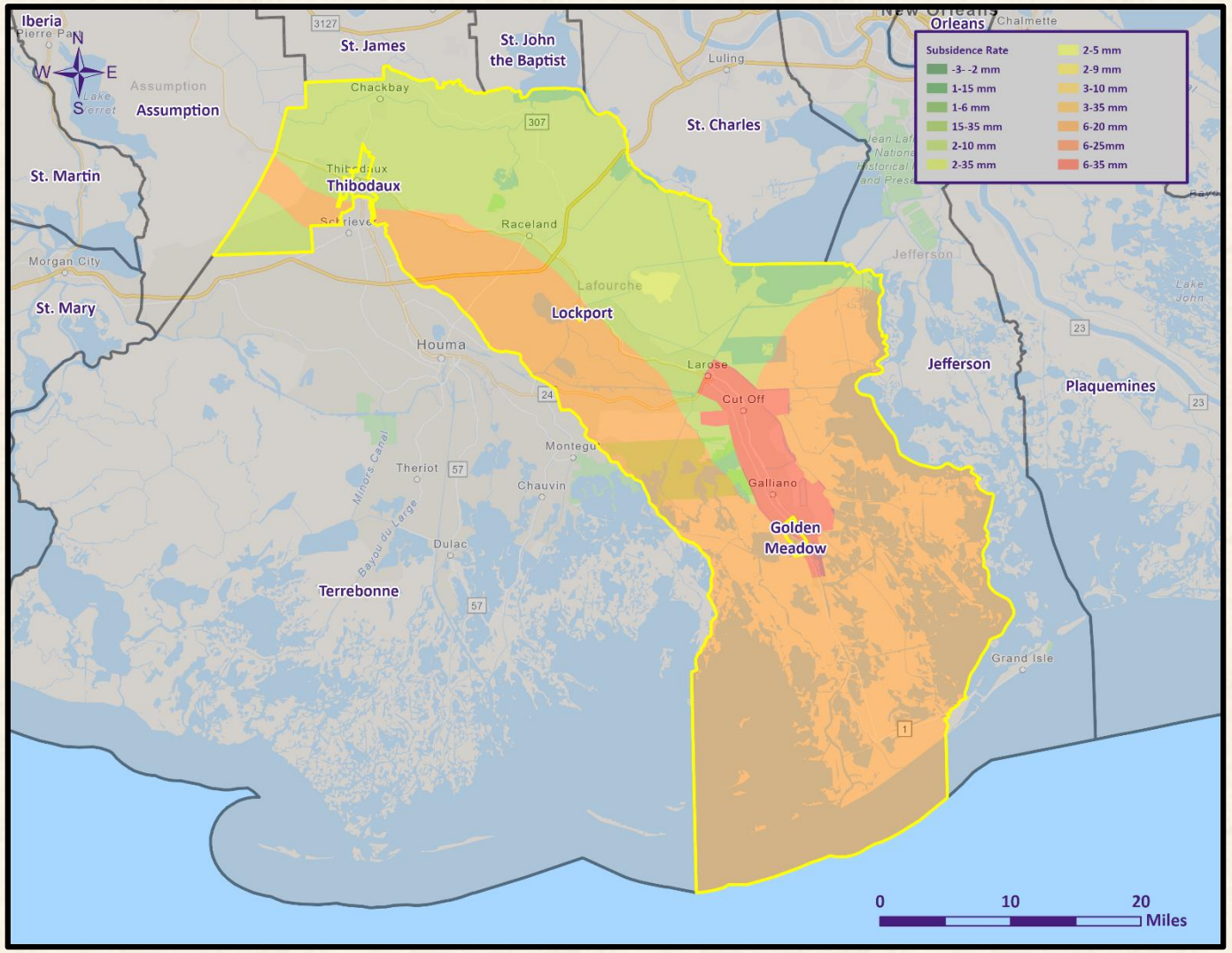
Coastal Hazards

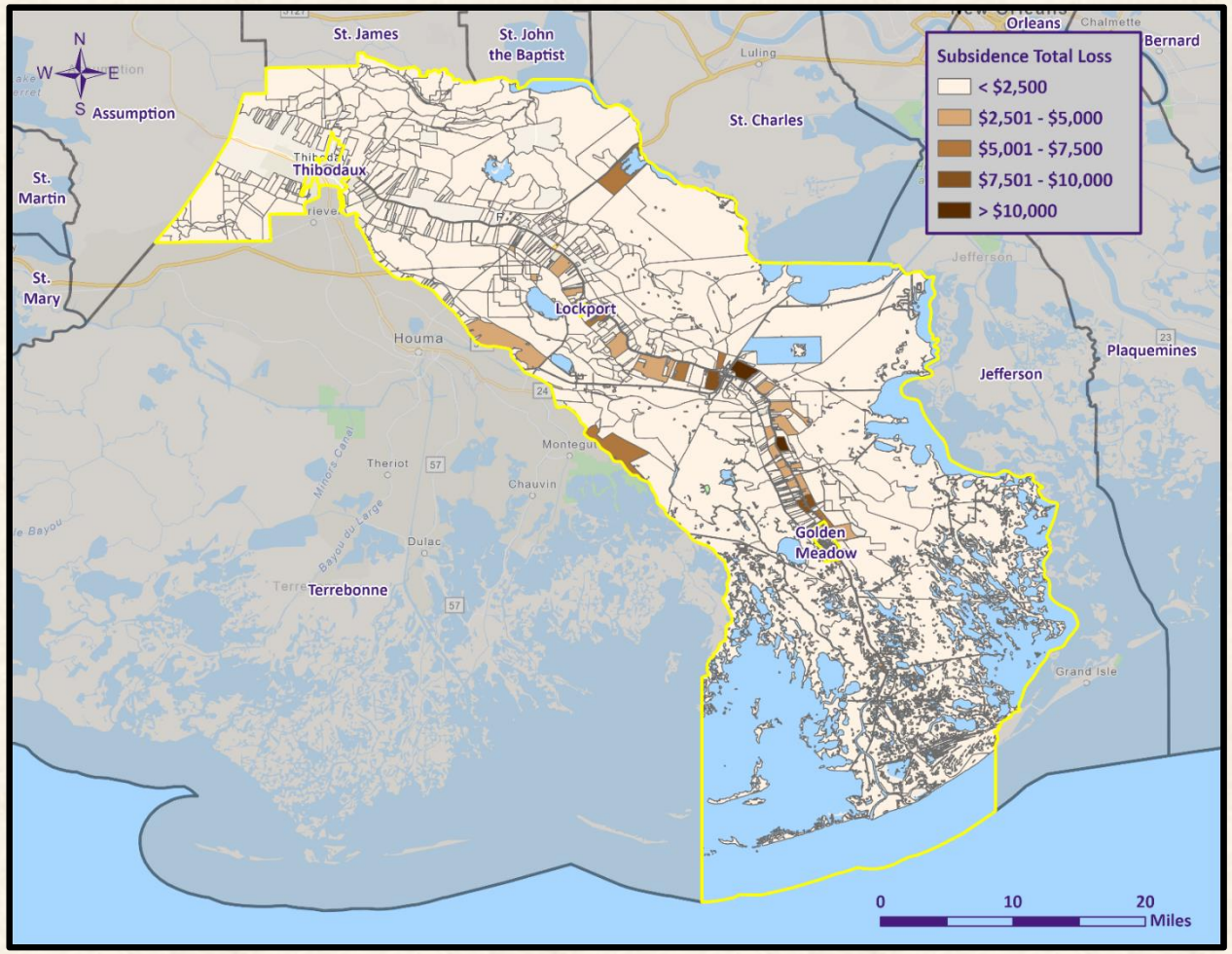
- Since 1932, the average annual land loss in Louisiana is 35 square miles, while the average annual land gained is 3 square miles.
- Subsidence and sea level rise are the main culprits for land loss but other “discrete hazards” i.e. hurricanes, also contribute.
- Subsidence rates are high in Lafourche Parish with the potential to lose up to 35mm of land annually near southern portions of the parish.



Subsidence Rates



Subsidence Loss



Estimated Annual Potential Losses	
Lafourche Parish	**Golden Meadow**
$106,400	$385,200
Lockport	**Thibodaux**
$193,100	$0

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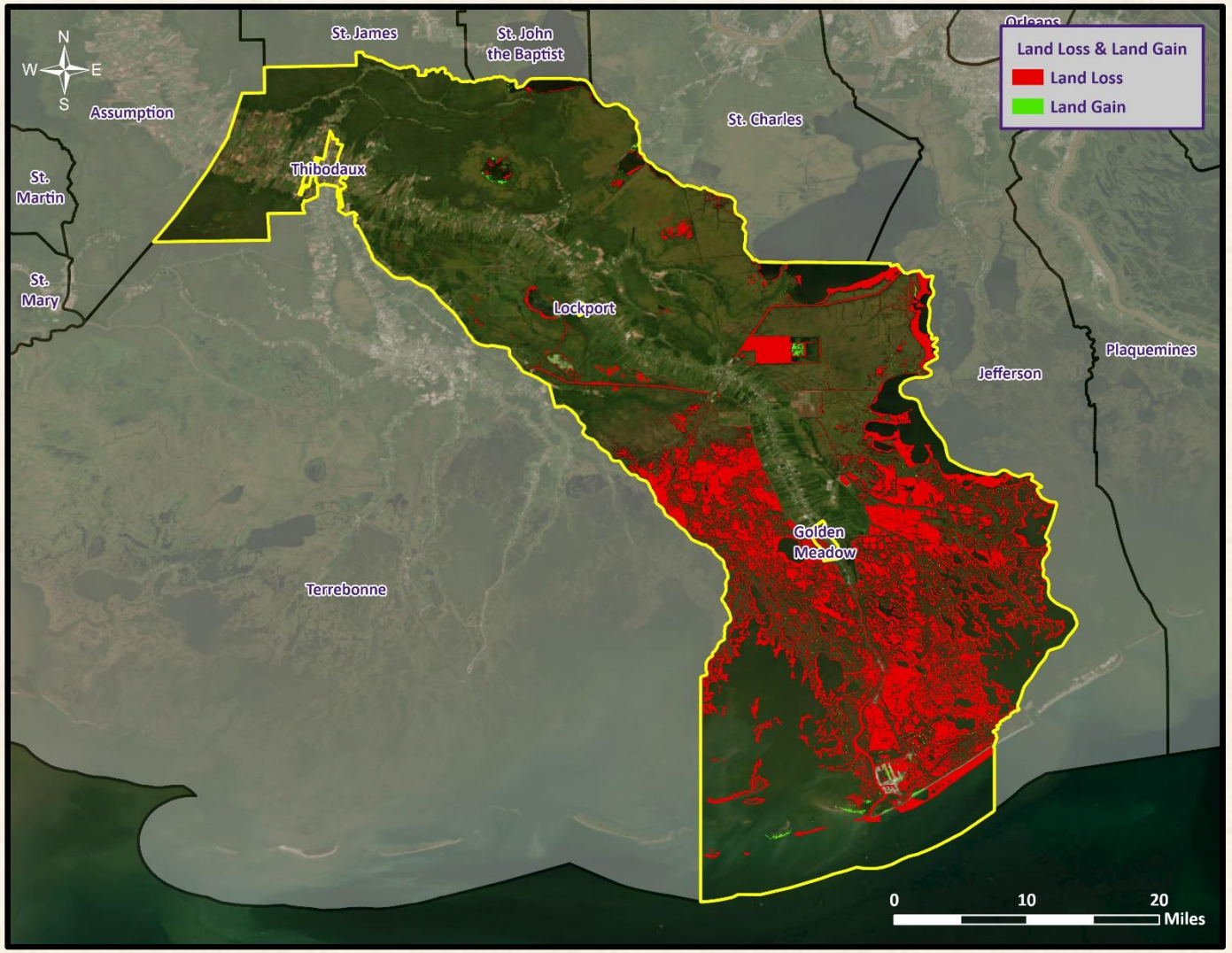
Land Gain and Land Loss



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Flooding

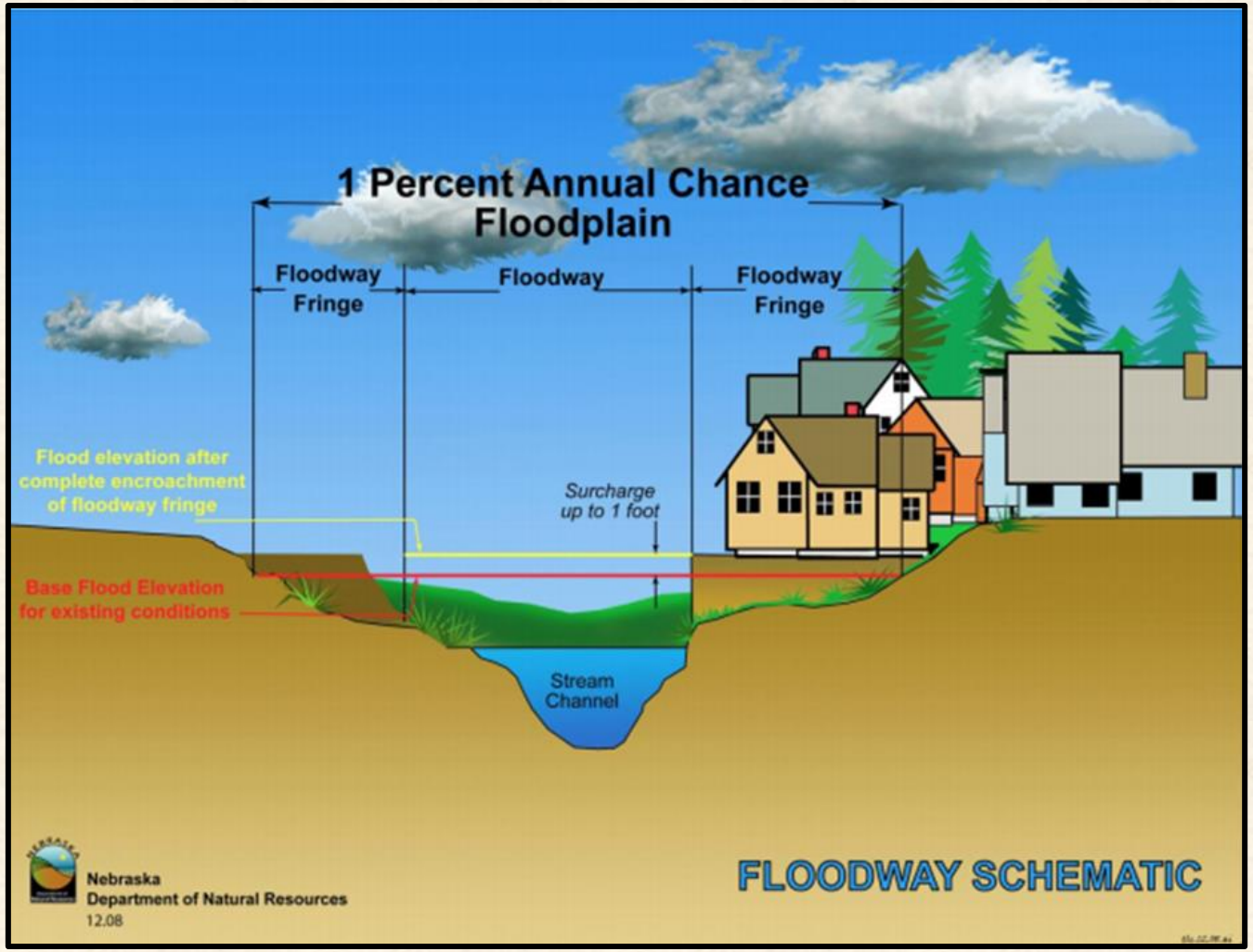
- A flood is the overflow of water onto land that is usually not inundated.

- 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.”

Flooding

- In Louisiana, six specific types of flooding are of main concern:
  - Riverine
  - Flash
  - Ponding
  - Backwater
  - Urban
  - Coastal

Floodway Diagram



Source: Nebraska Department of Natural Resources

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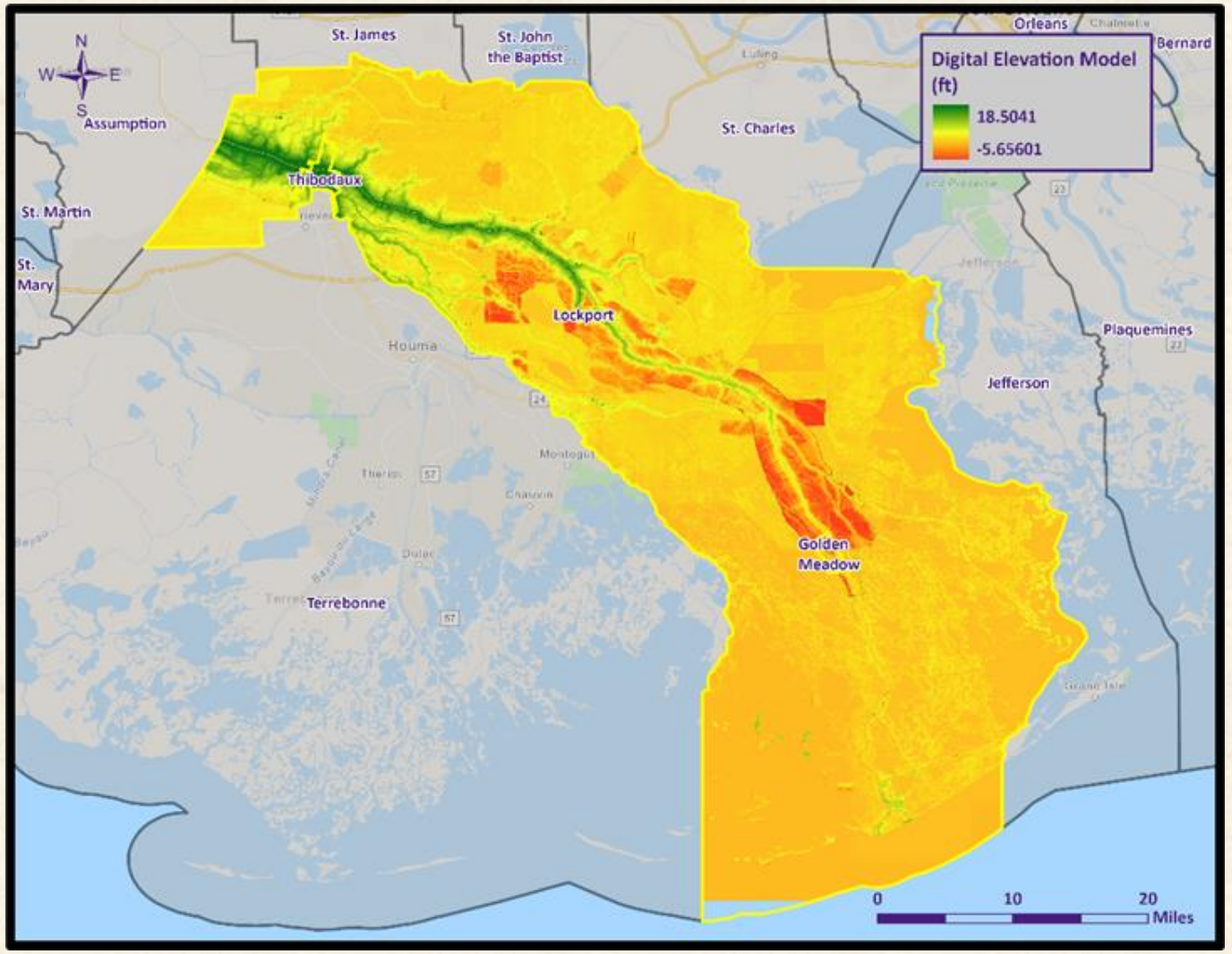
Digital Elevation Model



Source: USGS

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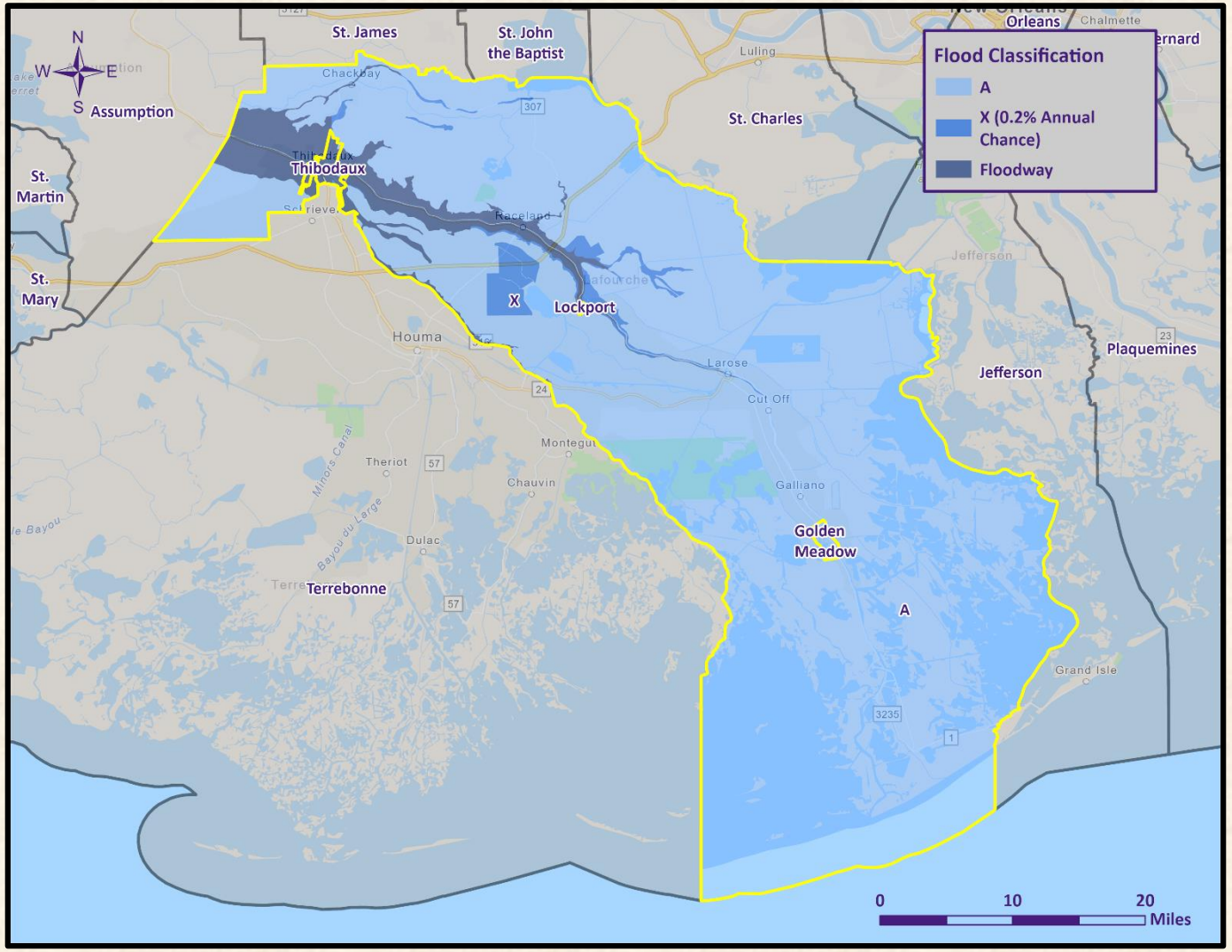
Lafourche Parish Flood Map



Source: FEMA Maps Service Center

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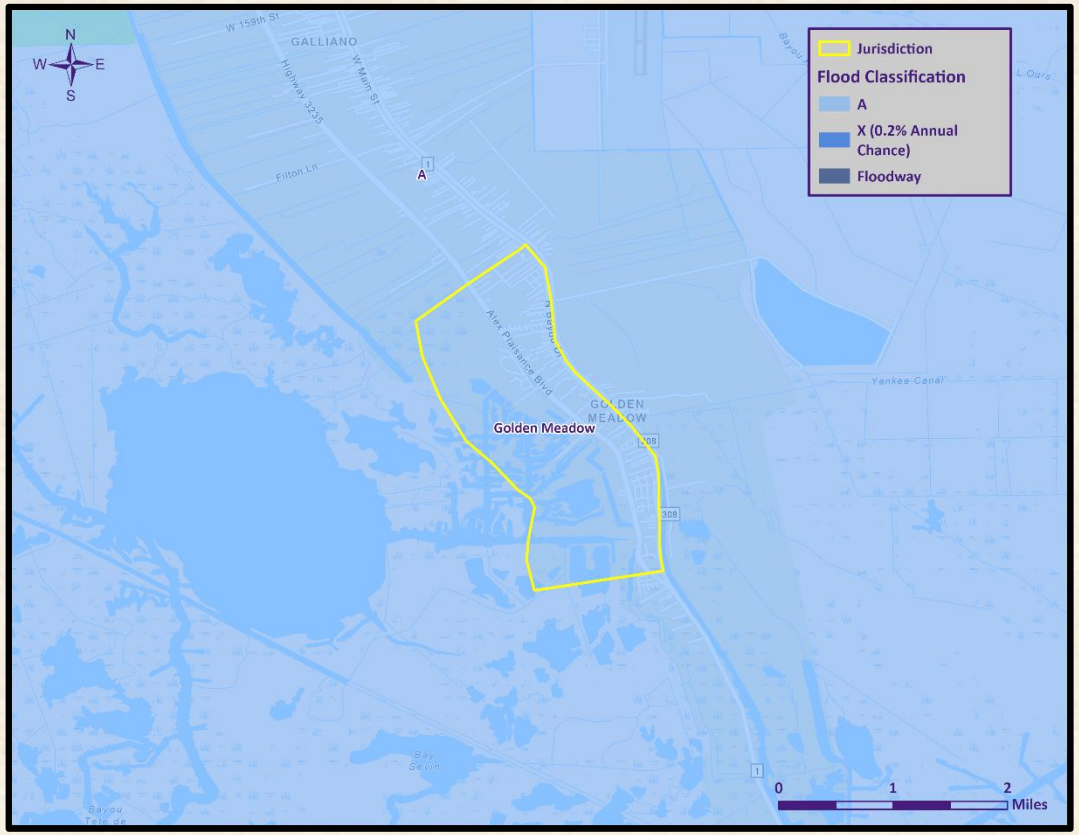
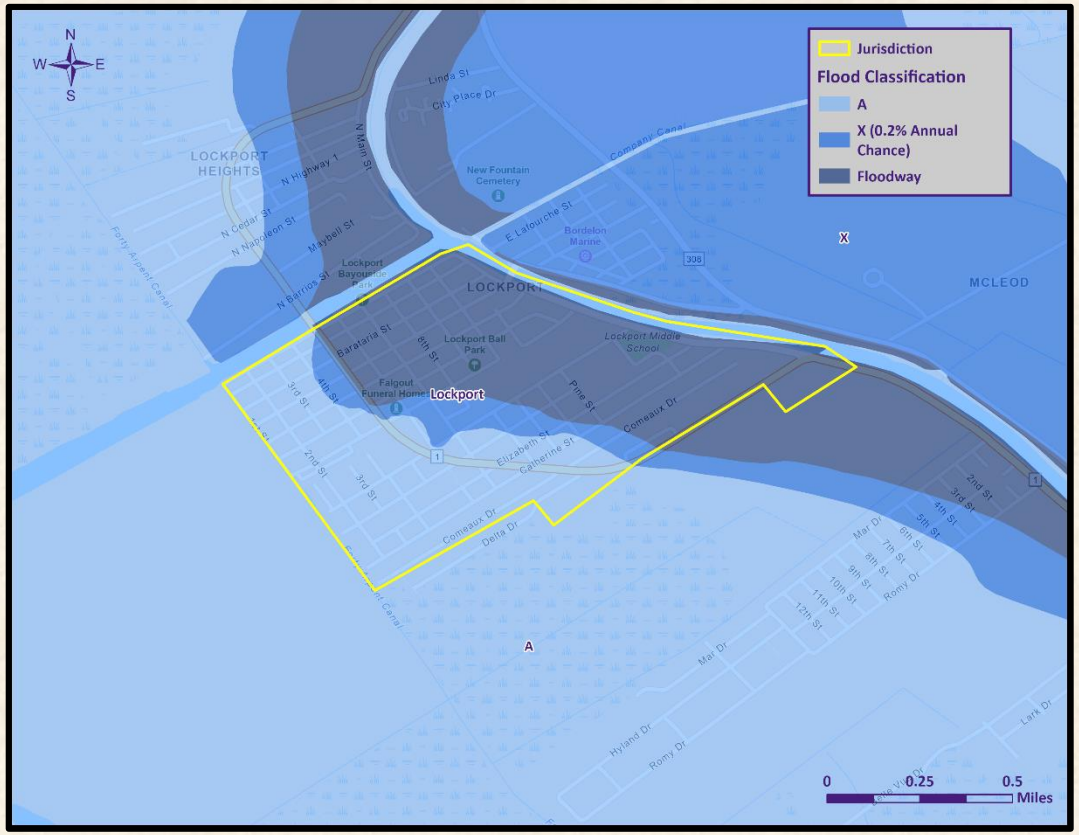
Lafourche Parish Flood Maps

Source: FEMA Maps Service Center



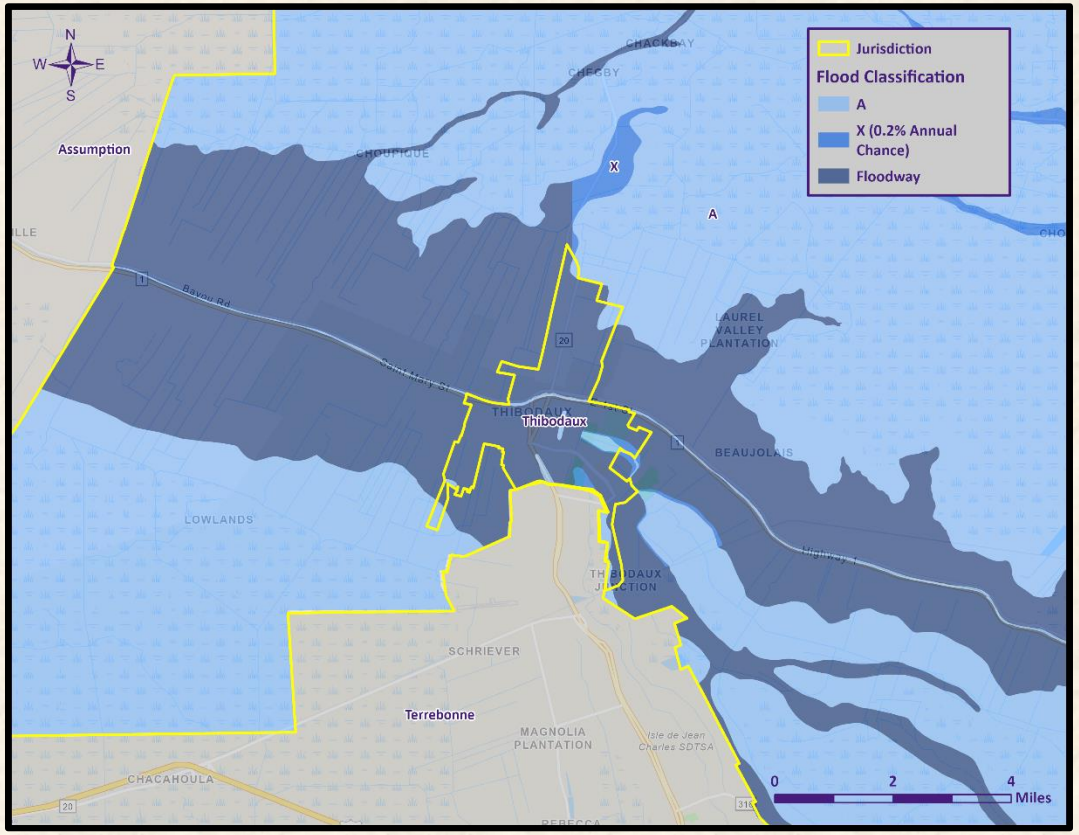
Golden Meadow



Lockport

Lafourche Parish Flood Maps

Source: FEMA Maps Service Center



Thibodaux

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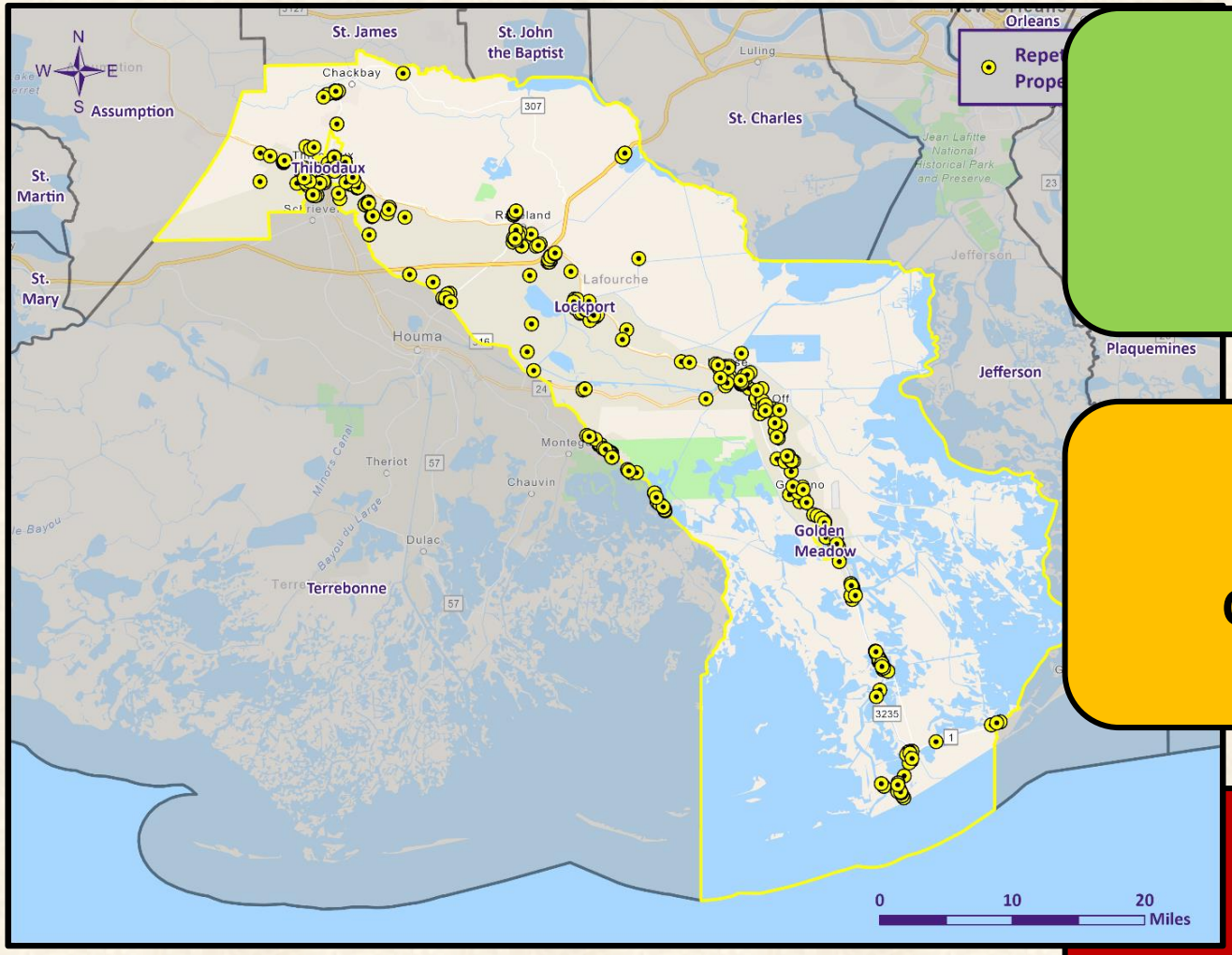
Flooding

- 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



Residential
488

Commercial
56

Government
0

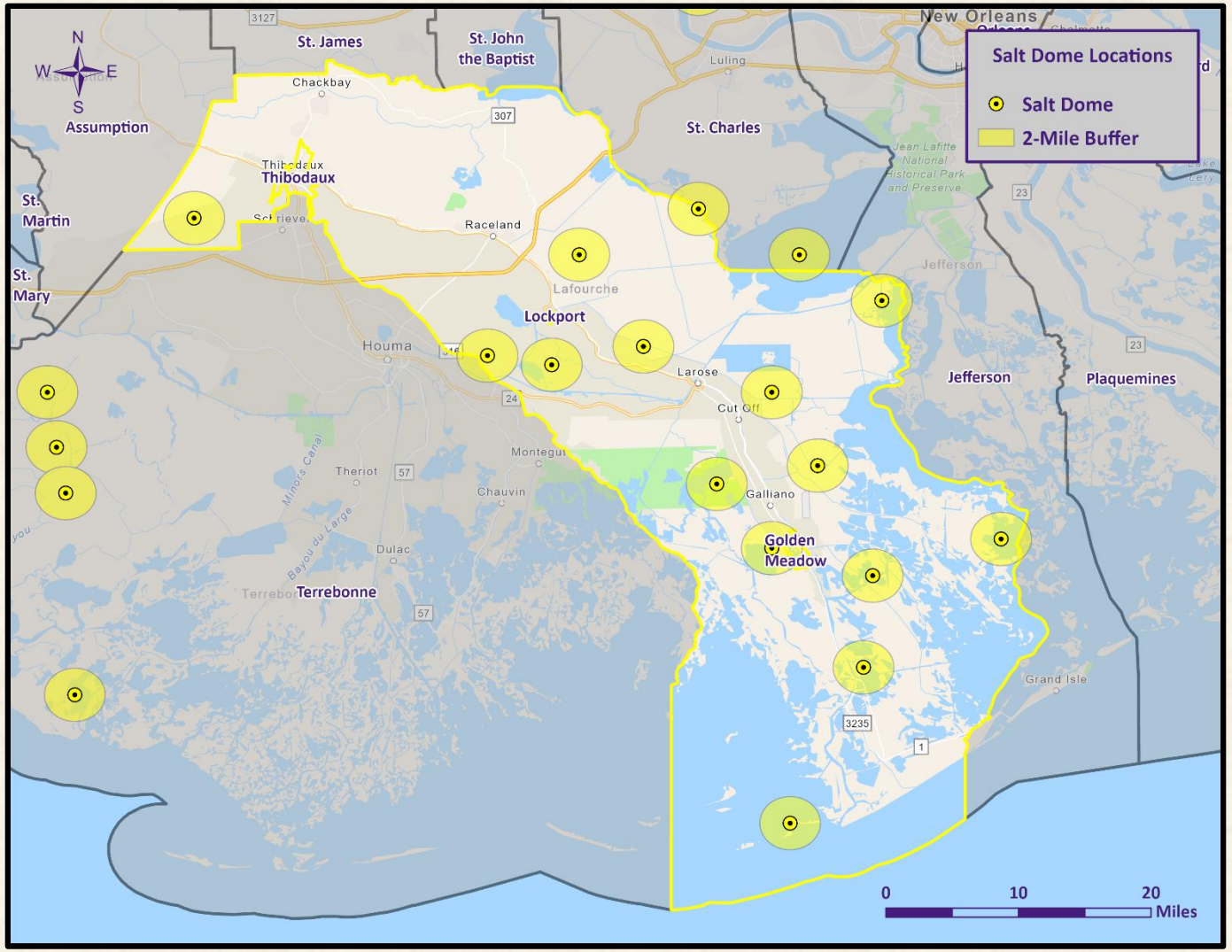
Total Structures: 544

Claims Paid: $42,303,263

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



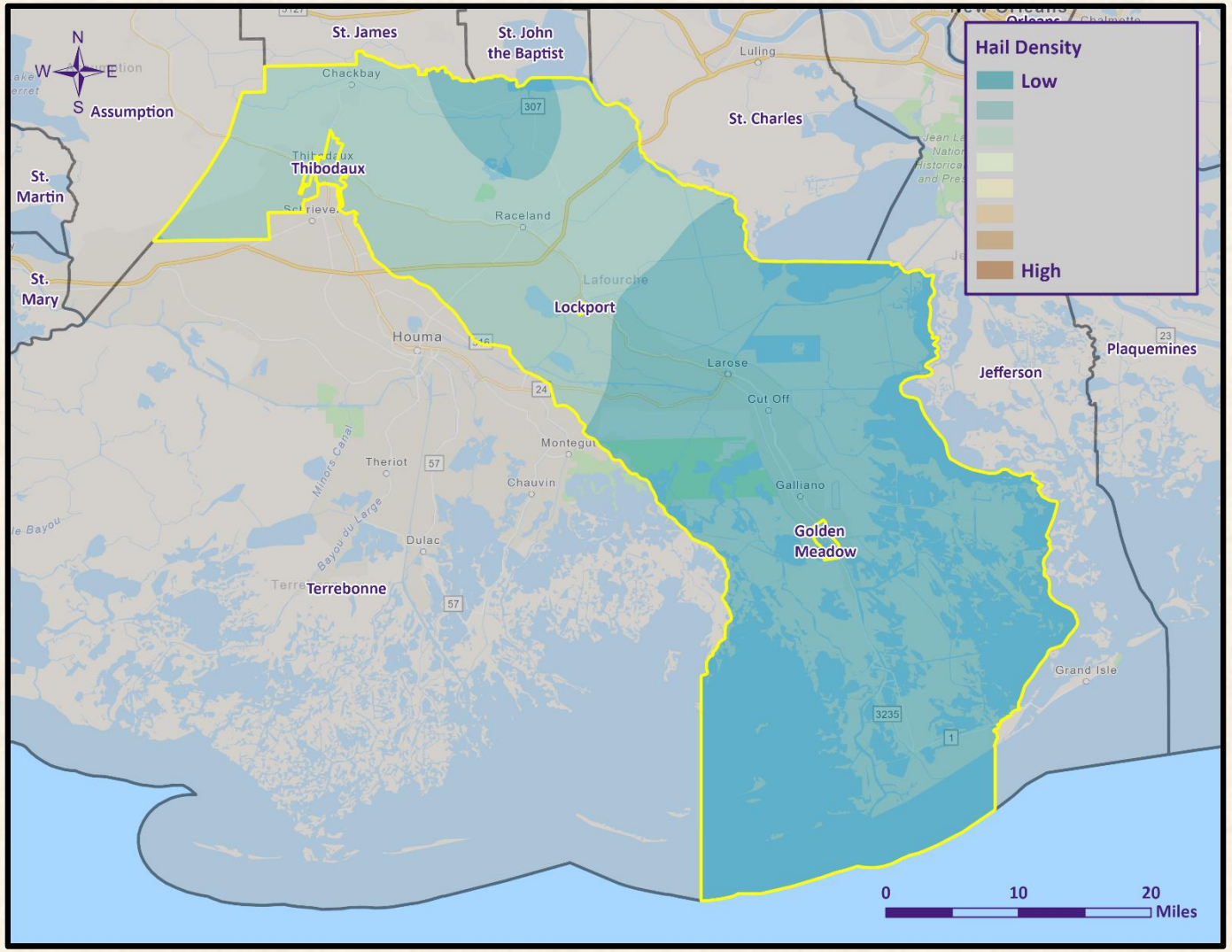
Thunderstorms

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

Hailstorm Density in Lafourche Parish



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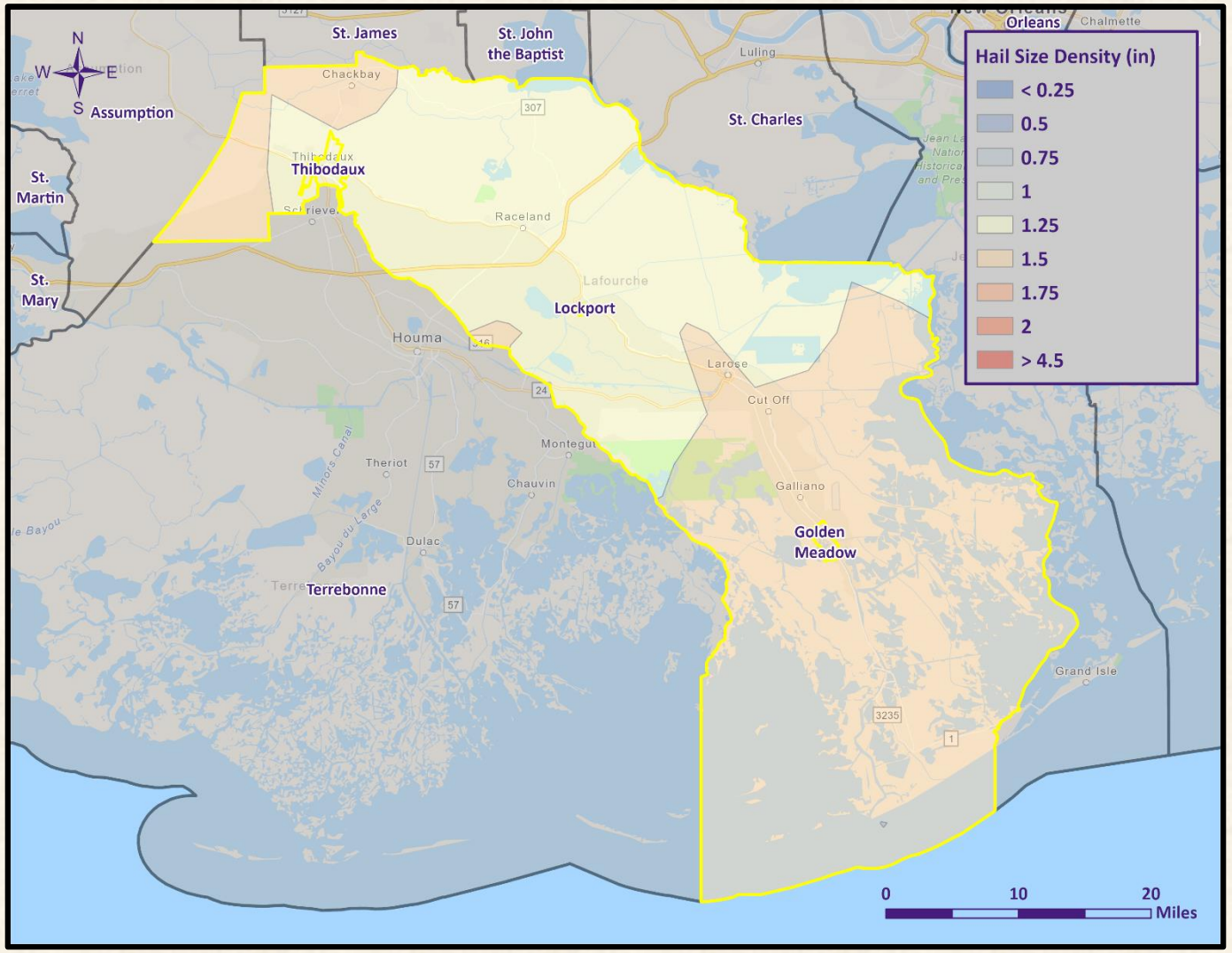
Maximum Hail Size Probability



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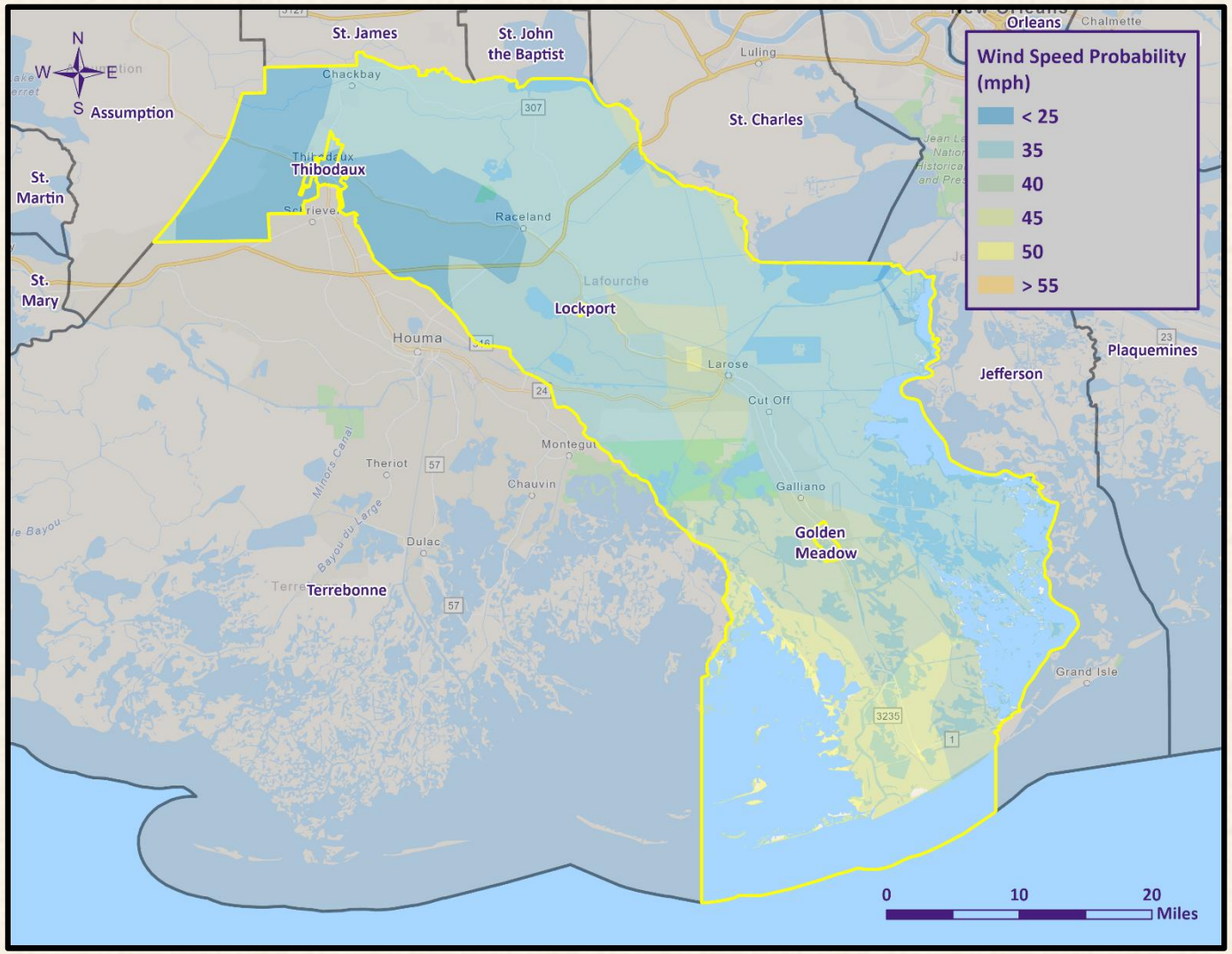
Maximum Wind Speed Probability



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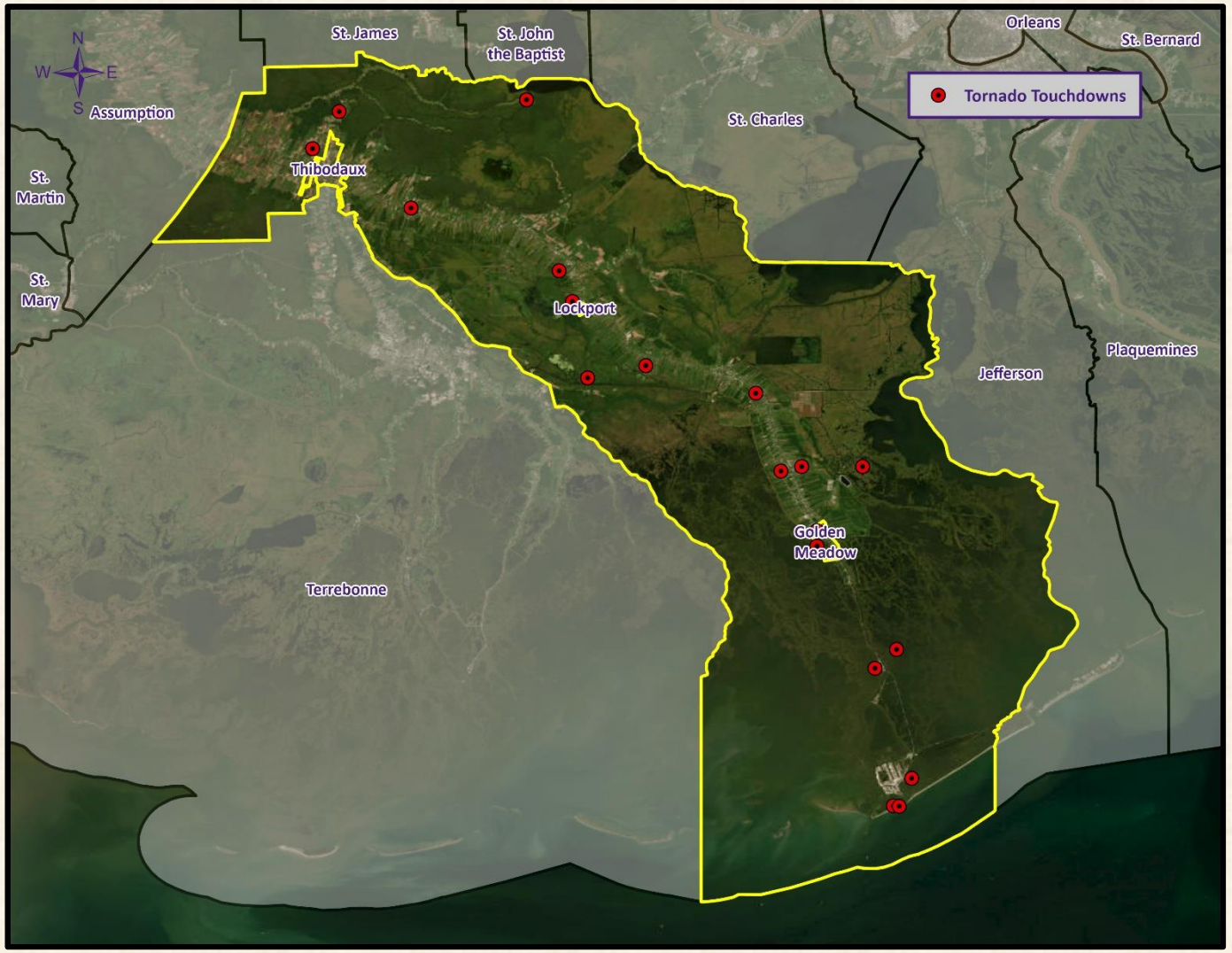
Tornadoes

- 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 Lafourche Parish



Source: NCEI Storm Events Database

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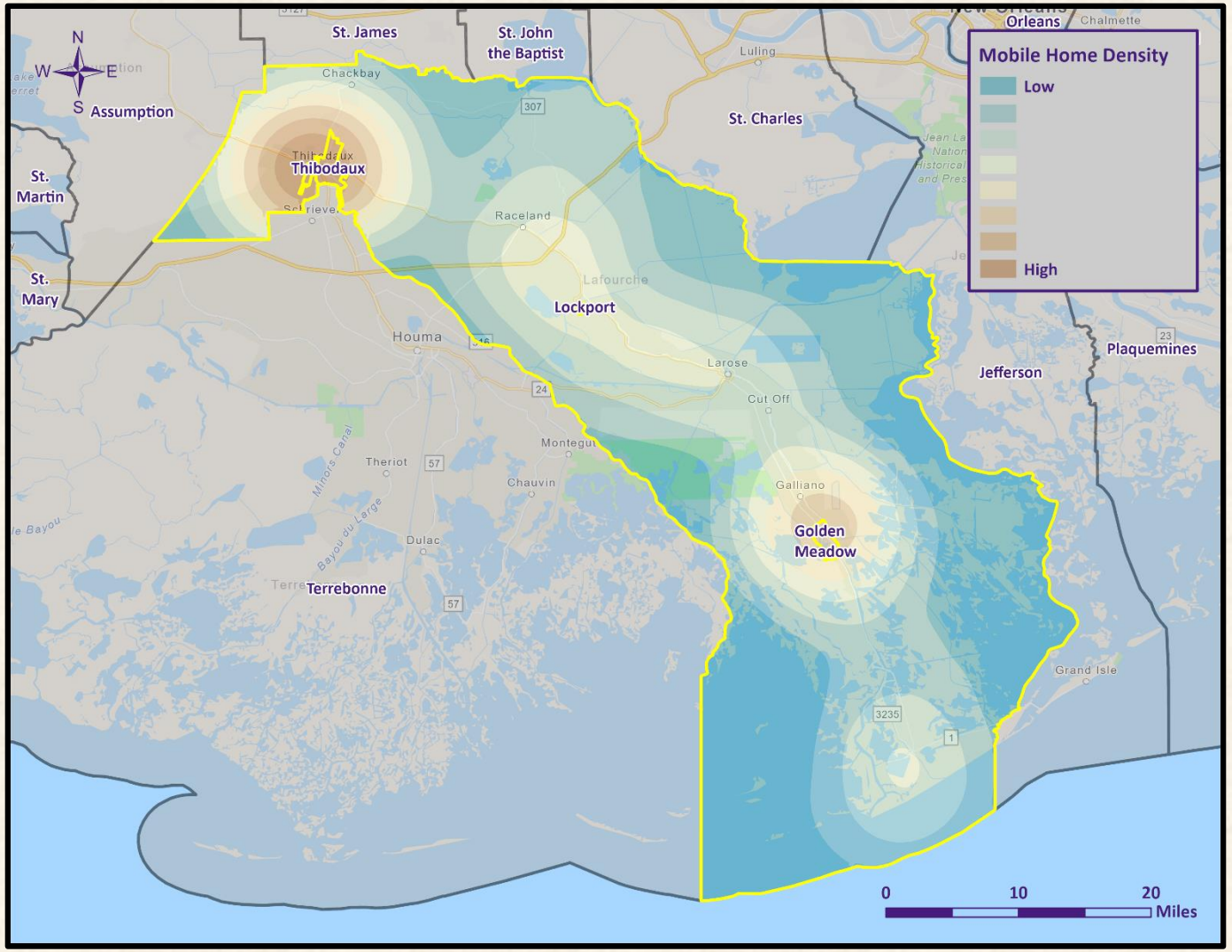
Manufactured Home Density



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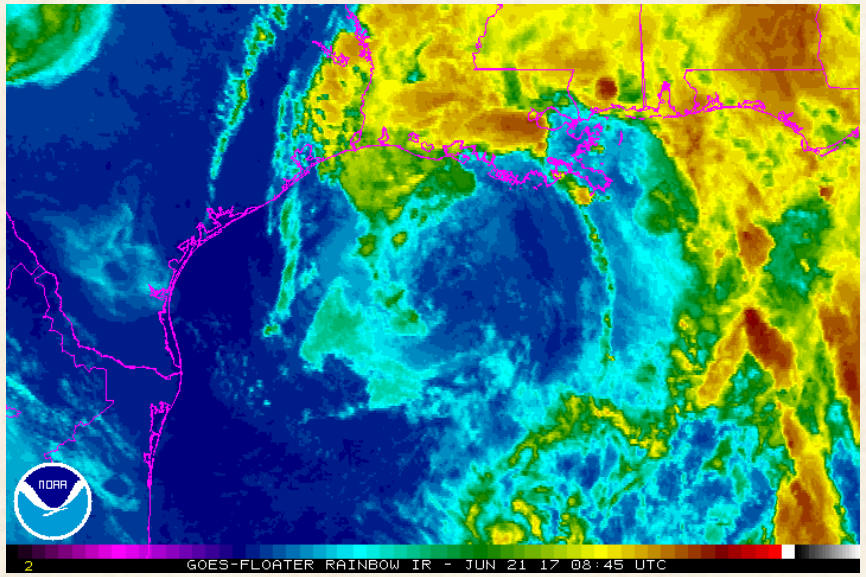
Tropical Cyclones

- 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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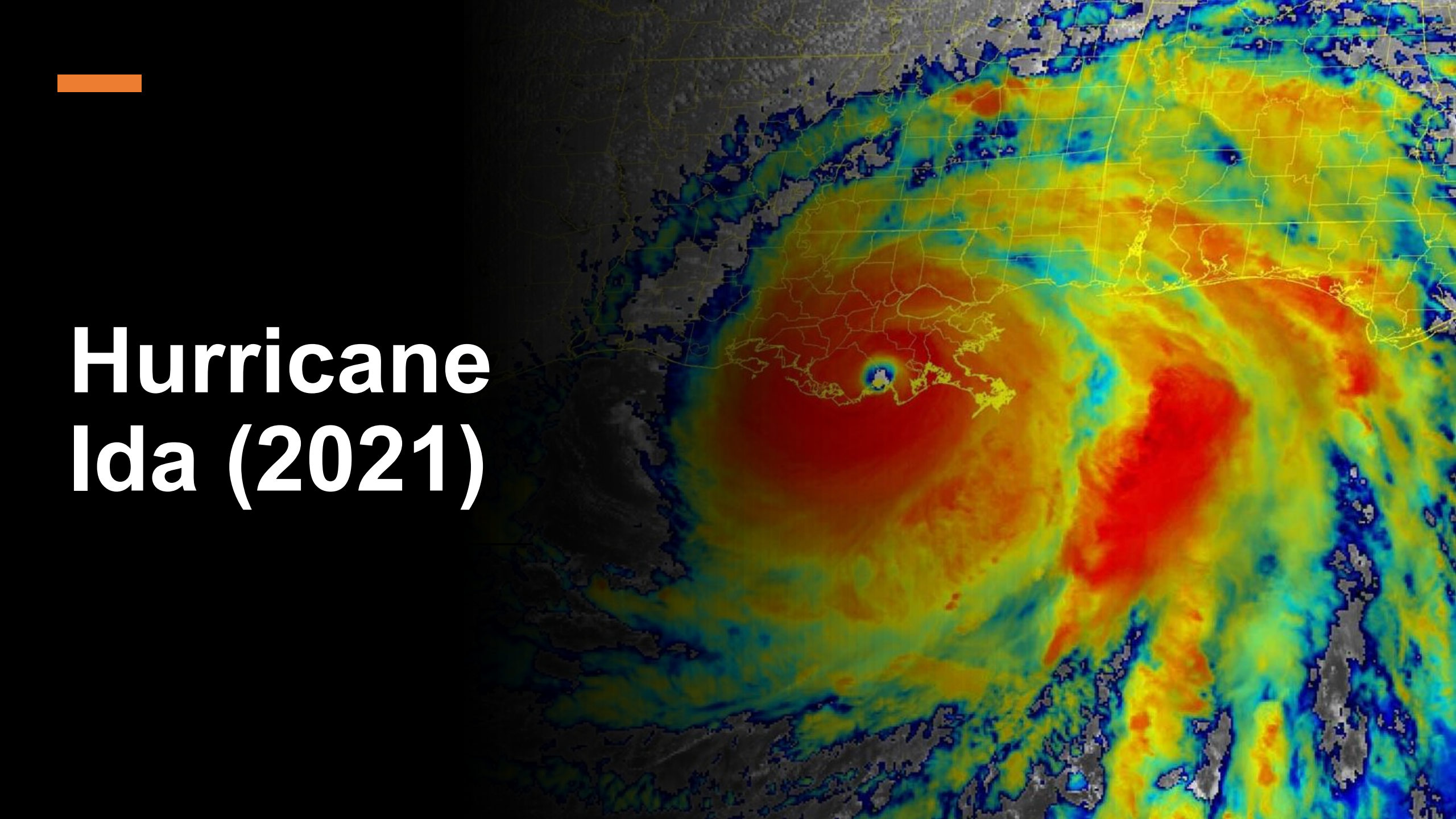
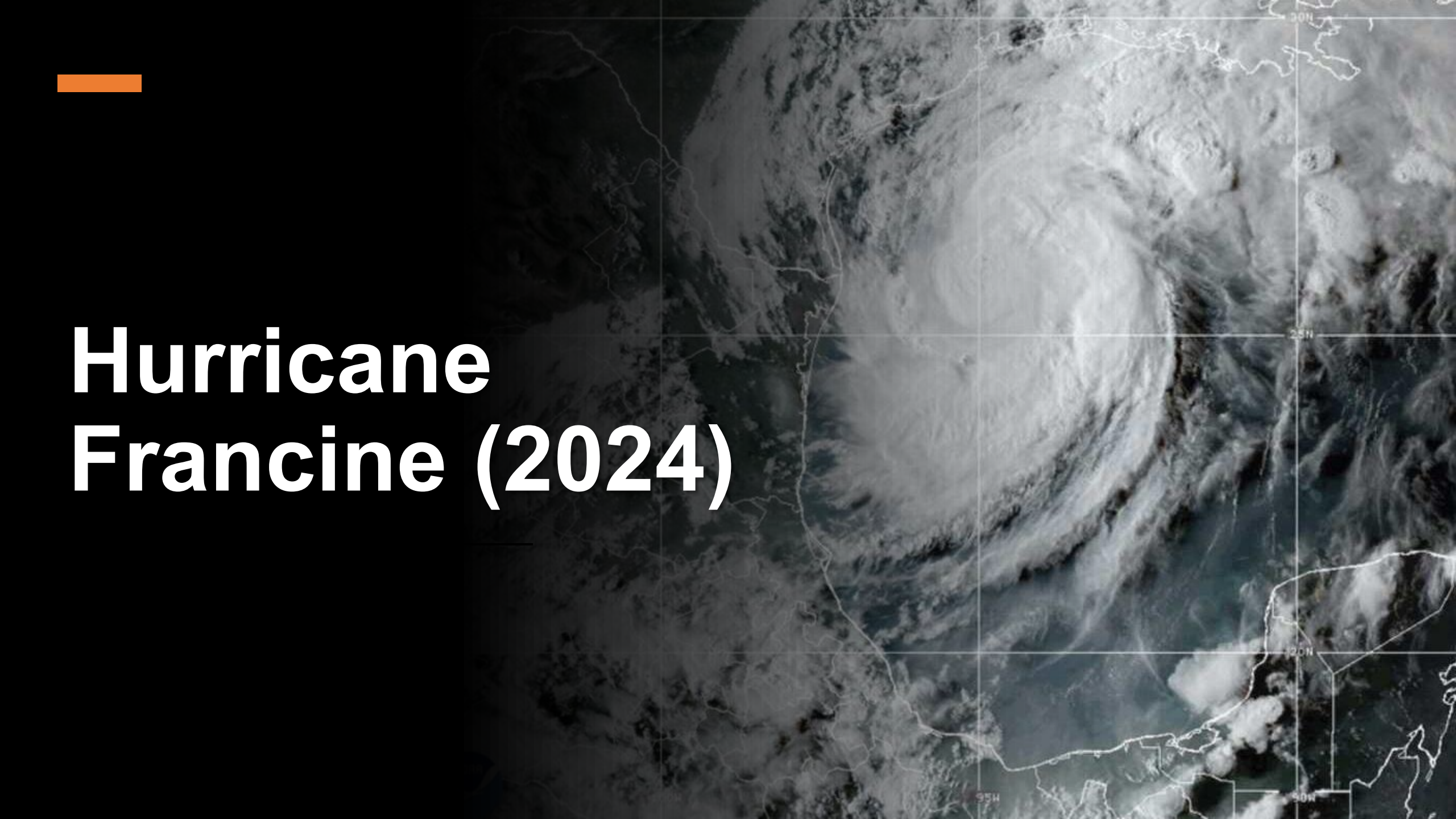
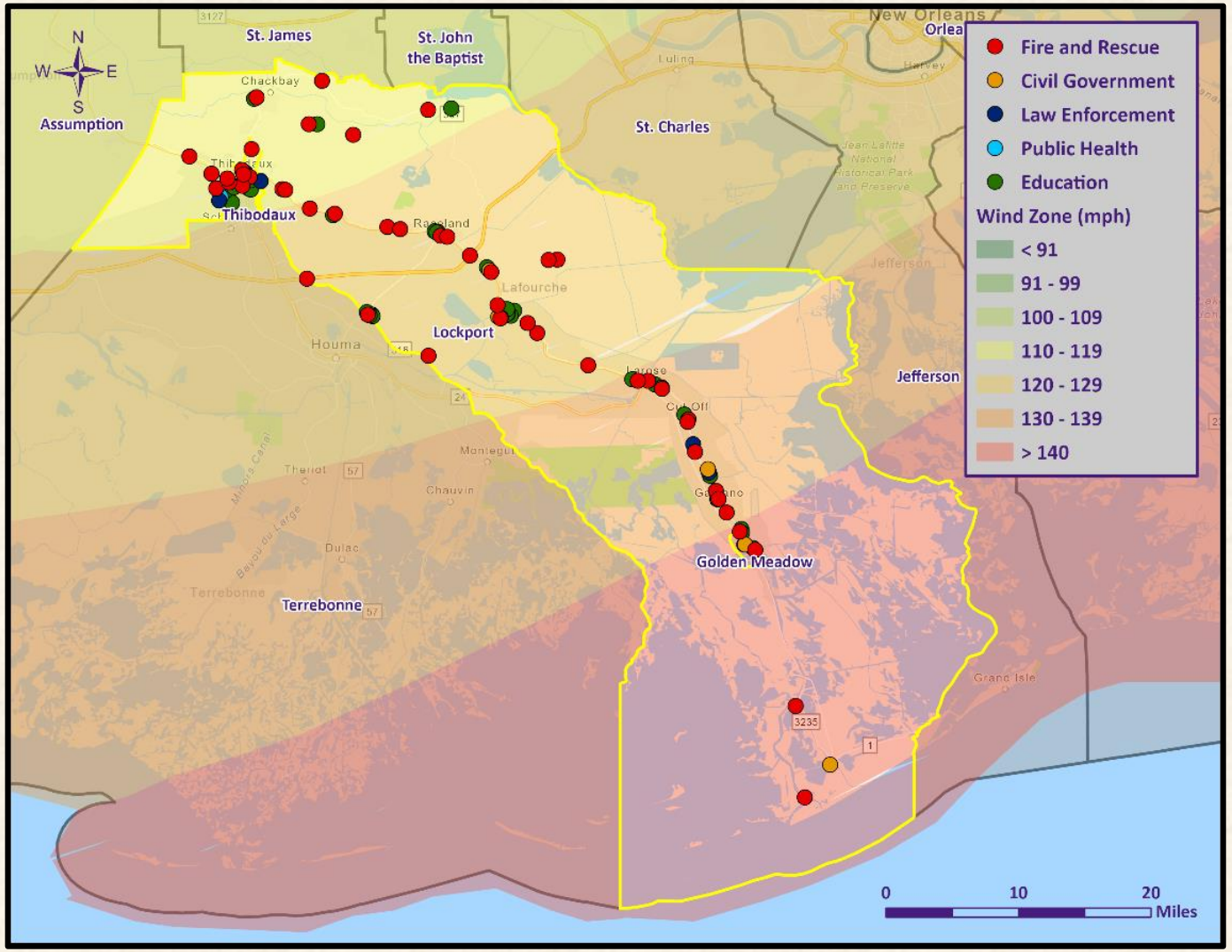
Hurricane Ida (2021)



Hurricane Francine (2024)



Wind Speed Impacts on C.I.



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Lafourche Parish Hazard Mitigation Goals

1. Identify and pursue preventative structural and non-structural measures that will reduce future damages from hazards.
2. Enhance public awareness and understanding of disaster preparedness.
3. Reduce repetitive flood losses in the parish by pursuing various mitigation measures (acquisitions, elevations, and flood-proofing).
4. Facilitate sound development in the parish and municipalities so as to reduce or eliminate the potential impact of hazards

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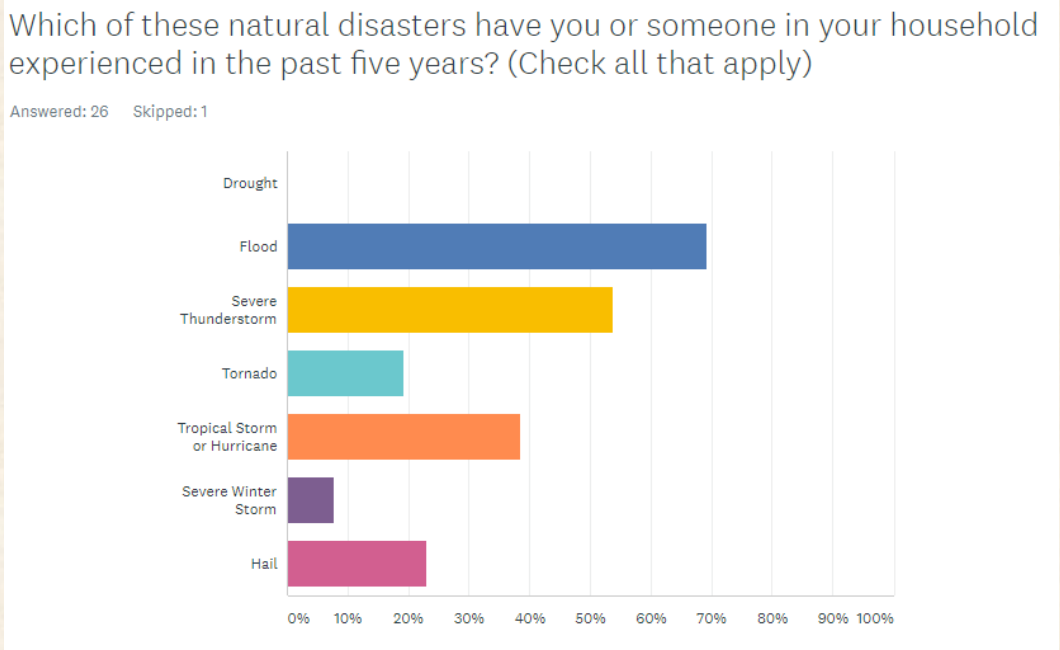
Public Outreach Activity #1

Hazard Mitigation Public Opinion Survey

https://lsu.qualtrics.com/jfe/form/SV_7Xa8LBD6J5FXKTk



Public Outreach Activity #2

Please fill out an incident questionnaire!

LAFOURCHE PARISH PUBLIC OUTREACH

PUBLIC ACTIVITY: INCIDENT/ ISSUE QUESTIONNAIRE

1. HAZARD TYPE(S):

A. COASTAL HAZARDS
B. FLOODING
C. SINKHOLES
D. THUNDERSTORMS
E. TORNADOES
F. TROPICAL CYCLONES

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:

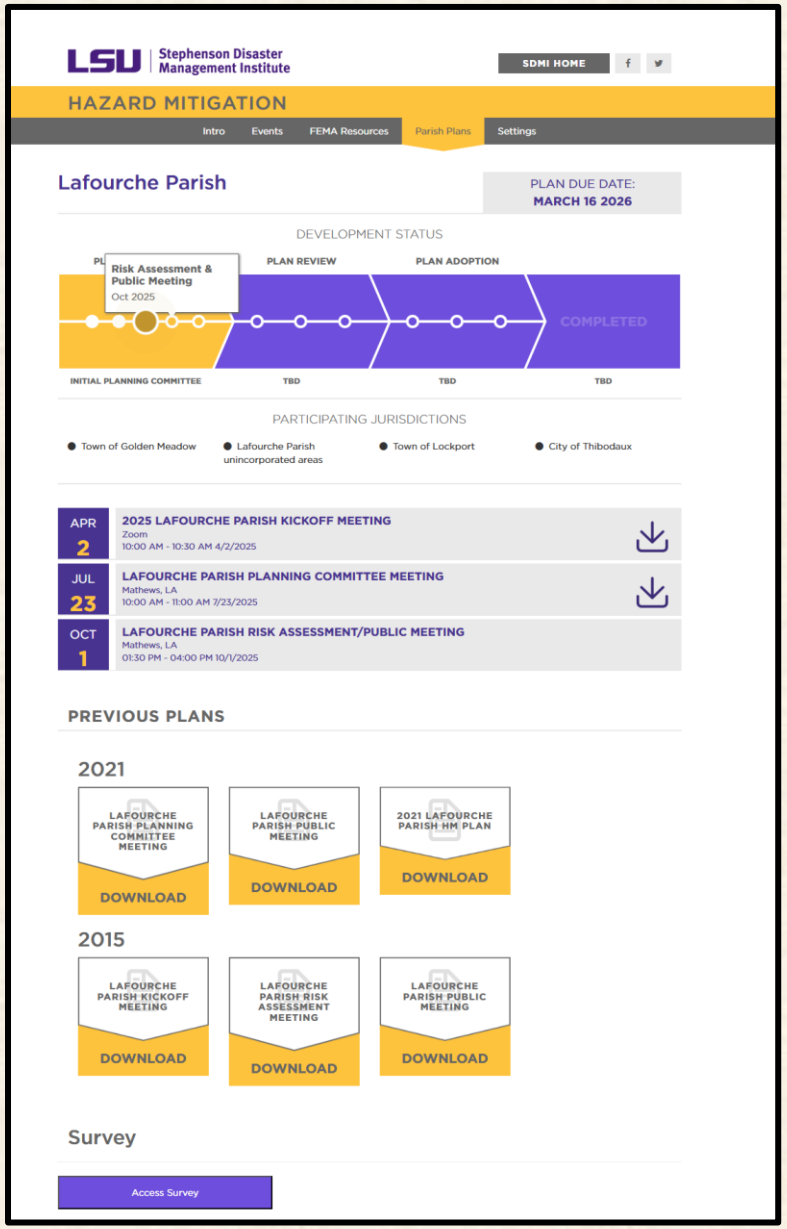
6. WHAT TYPE OF INTERRUPTIONS DOES/DIDTHE INCIDENT OR ISSUE CAUSE? (BUSINESS CLOSURE,DAMAGE, EVACUATION, ETC.)

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

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

SDMI Hazard Mitigation Website

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



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