TERREBONNE PARISH
HAZARD MITIGATION PLAN UPDATE 2023

STEERING COMMITTEE MEETING #2
August 31, 2022

Office of Homeland Security and Emergency Preparedness
Presented by: Bill Bohn

Assessing the Hazard

- Introductions and welcome
- Planning process
- Vulnerability and risk assessment process
- Hazard identification and assessing the hazard

Introductions

- Name
- Organization
- Role

What's in the Mitigation Plan?

- Community profiles – demographics, employment, growth areas, natural environment, and built environment
- Hazard information and risk assessment – natural, human-caused, and technological hazards
- Community capabilities
- Mitigation goals, objectives, and actions
- Maintenance strategies – maintenance plan for the next five years

Role of Steering Committee

- Provide supporting data and information
- Assist in the identification and prioritization of hazards to address
- Assist in the identification and prioritization of mitigation actions
- Review and comment on the draft plan

HMP Planning Process

Focus of this Update

- Update the risk assessment with a detailed, site-specific Hazus analysis
- Lower insurance costs
- Update Plan with recent hazard information and experiences

Community Rating System (CRS)

- Launched by FEMA in 1990 (Terrebonne Parish joined in 1992)
- Voluntary, *incentive-based* program that recognizes, encourages and rewards community floodplain management activities that exceed minimum standards of the National Flood Insurance Program (NFIP)
- Flood insurance rates for private properties are *discounted* to reflect the reduced flood risk resulting from community actions
- Parish is currently a Class 7 community

Community Rating System (CRS) Steps

Mitigation Planning Elements*	CRS Planning Steps**
A. Planning Process	1. Organize to prepare the plan
	2. Involve the public
	3. Coordinate
	10. Implement, evaluate, revise
B. Hazard Identification and Risk Assessment	4. Assess the hazard
	5. Assess the problem
C. Mitigation Strategy	6. Set goals
	7. Review possible activities
	8. Draft an action plan
D. Plan Update	10. Implement, evaluate, revise 5-year update
E. Plan Adoption	9. Adopt the plan

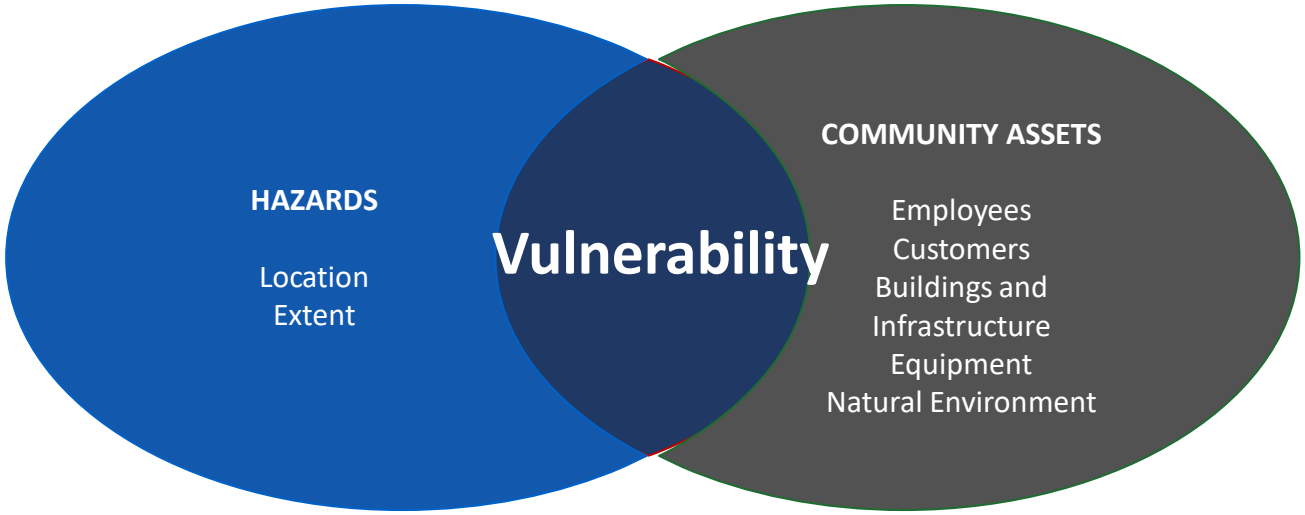
Definitions - Hazard

- Hazard means an event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, damage to the environment, interruption of business, or other types of harm or loss. (FEMA)

Source: Local Mitigation Planning Handbook, FEMA 2013.

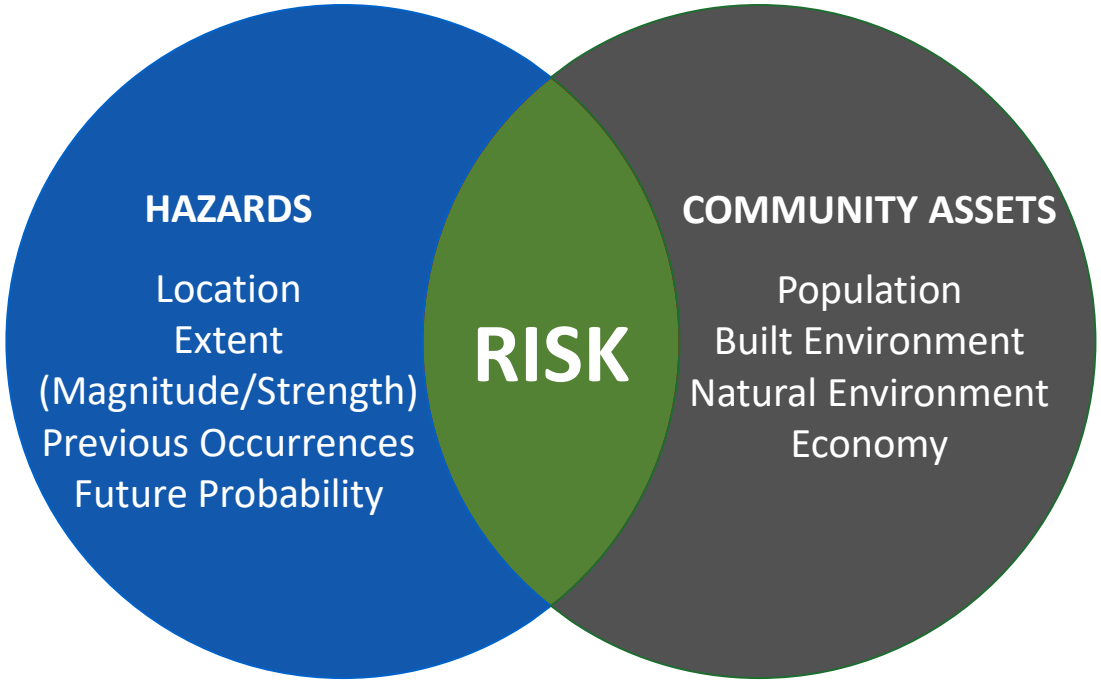
What is Vulnerability?

- Vulnerability definition: The susceptibility of people, property, industry, resources, ecosystems, or historical buildings and artifacts to the negative impact of a disaster. (FEMA)



What is Risk?

- The potential for damage, loss, or other impacts created by the interaction of natural hazards with community assets.



Source: Local Mitigation Planning Handbook, FEMA 2013.

What is Risk Assessment?

- Product or process that collects information and assigns values to risks for the purpose of ranking priorities, developing or comparing courses of action, and informing decision making. (FEMA)

Risk/Vulnerability Section of the Plan

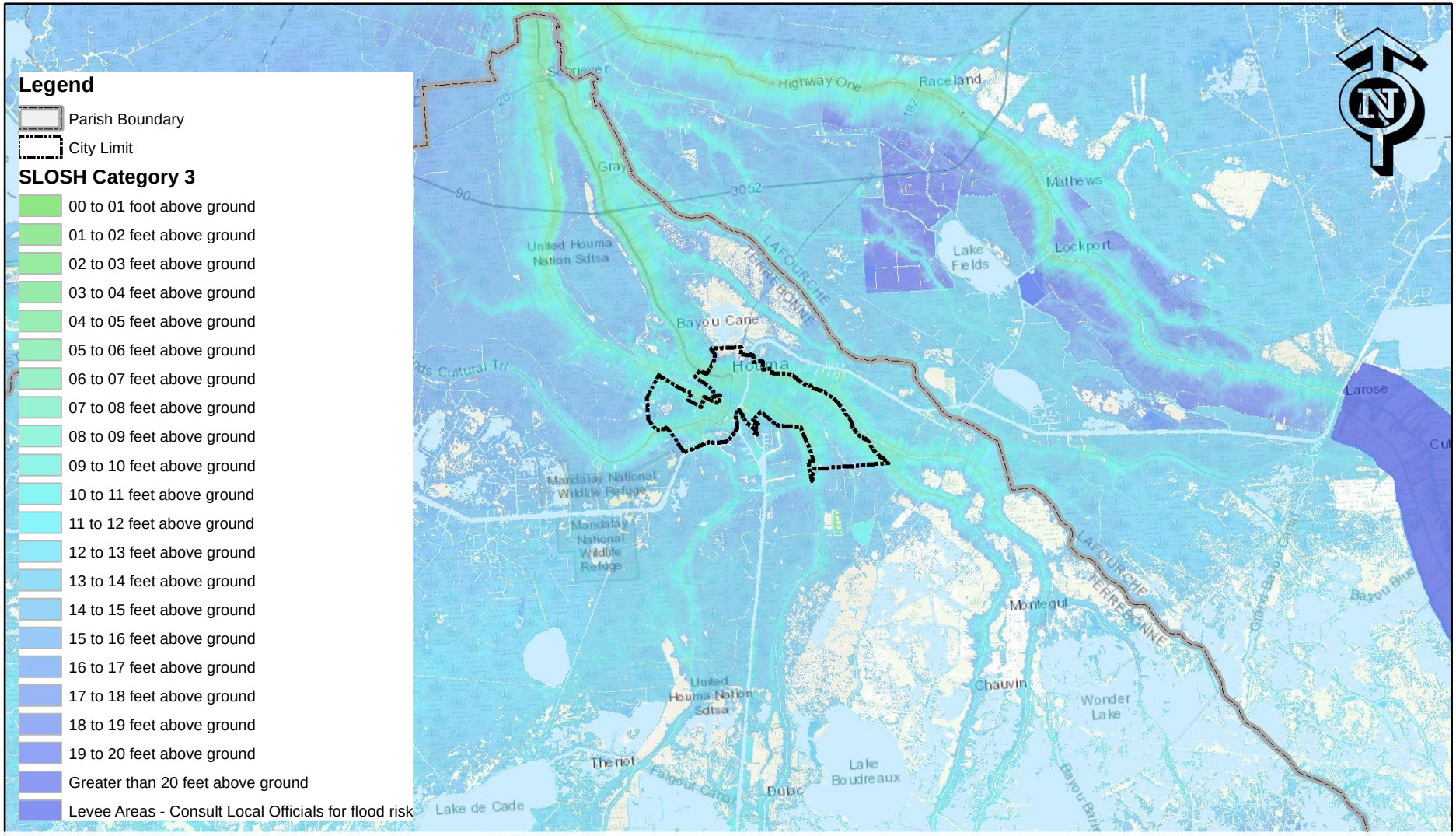
- Hazard description
- Geographic location and extent of hazard
- Magnitude and severity
- Previous occurrences
- Relationship to other hazards
- Vulnerability and risk
- Impacts – social, economic, and environmental

Hazards Addressed in Previous HMP

- Flooding (surge, rainfall, and riverine/backwater)
- Levee failure
- Hurricanes and coastal/tropical storms
- Saltwater intrusion
- Tornadoes
- Subsidence (coastal and within forced drainage areas)
- Coastal erosion
- Lightning

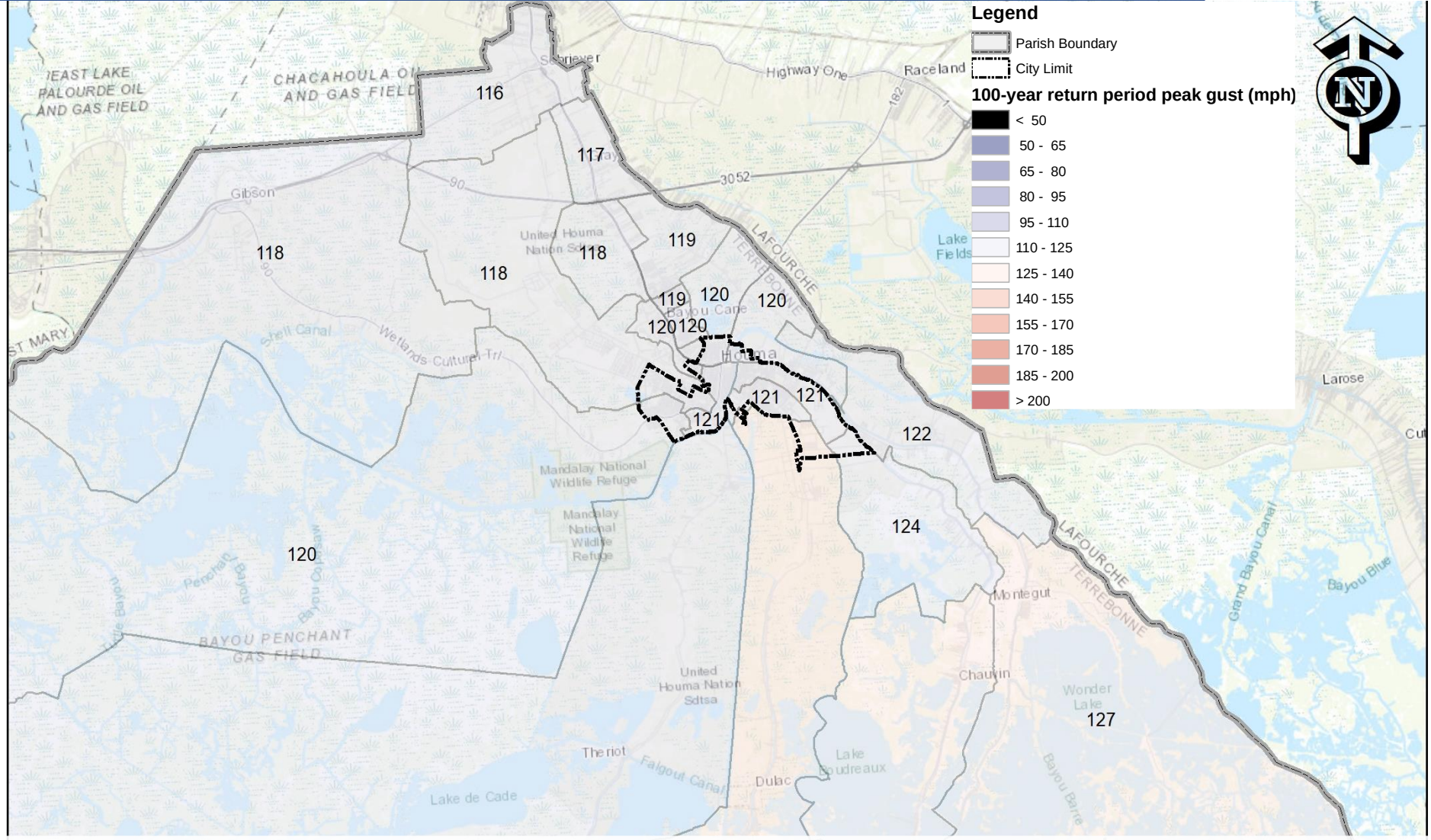
Additional Hazards to Consider

- Extreme heat
- Drought
- Wildfire
- Winter Storms
- Wind as separate hazard
- Hailstorms
- Earthquake
- Sinkholes
- Expansive soil



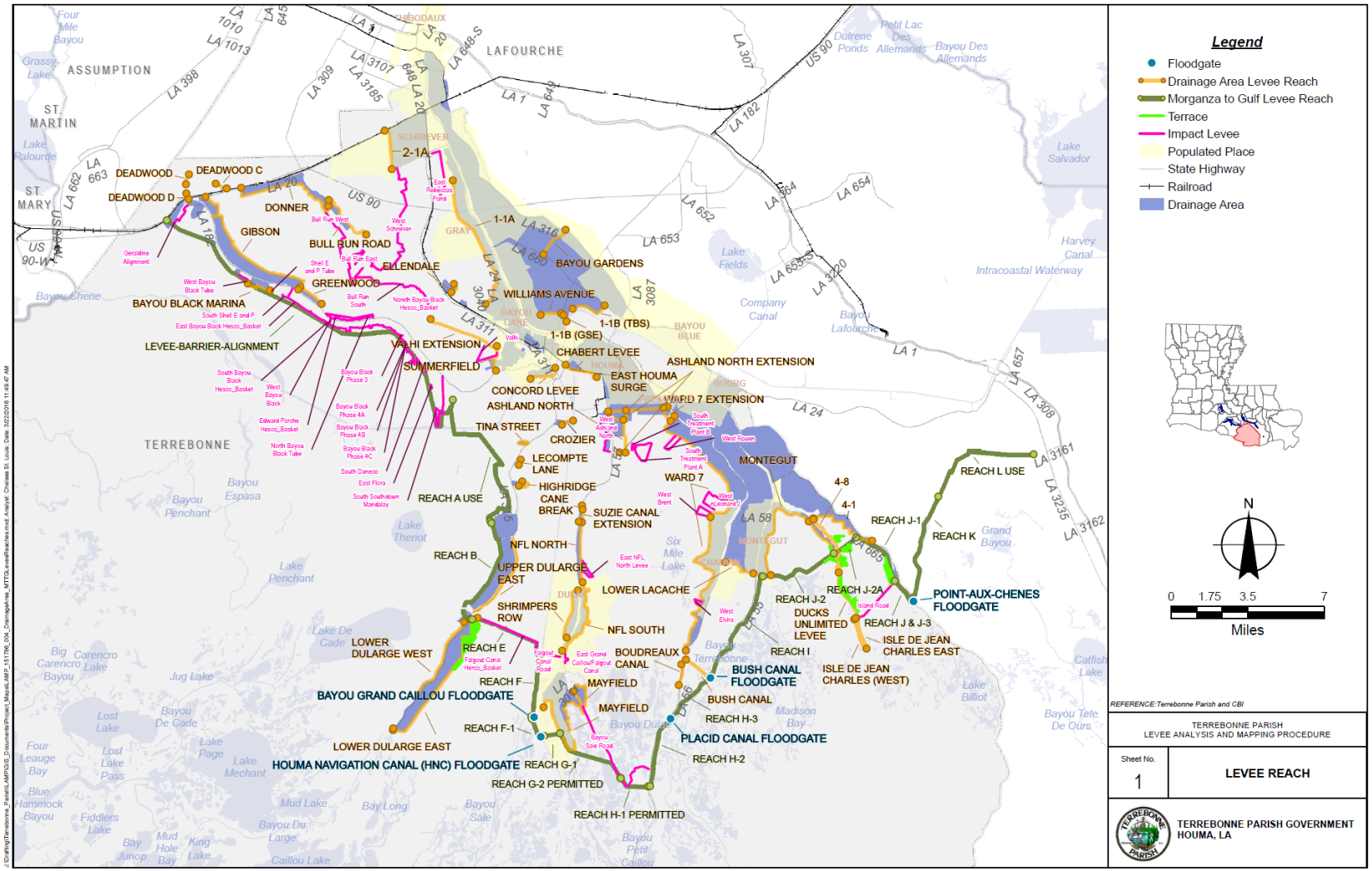
Hurricane Surge (SLOSH Category 3)

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

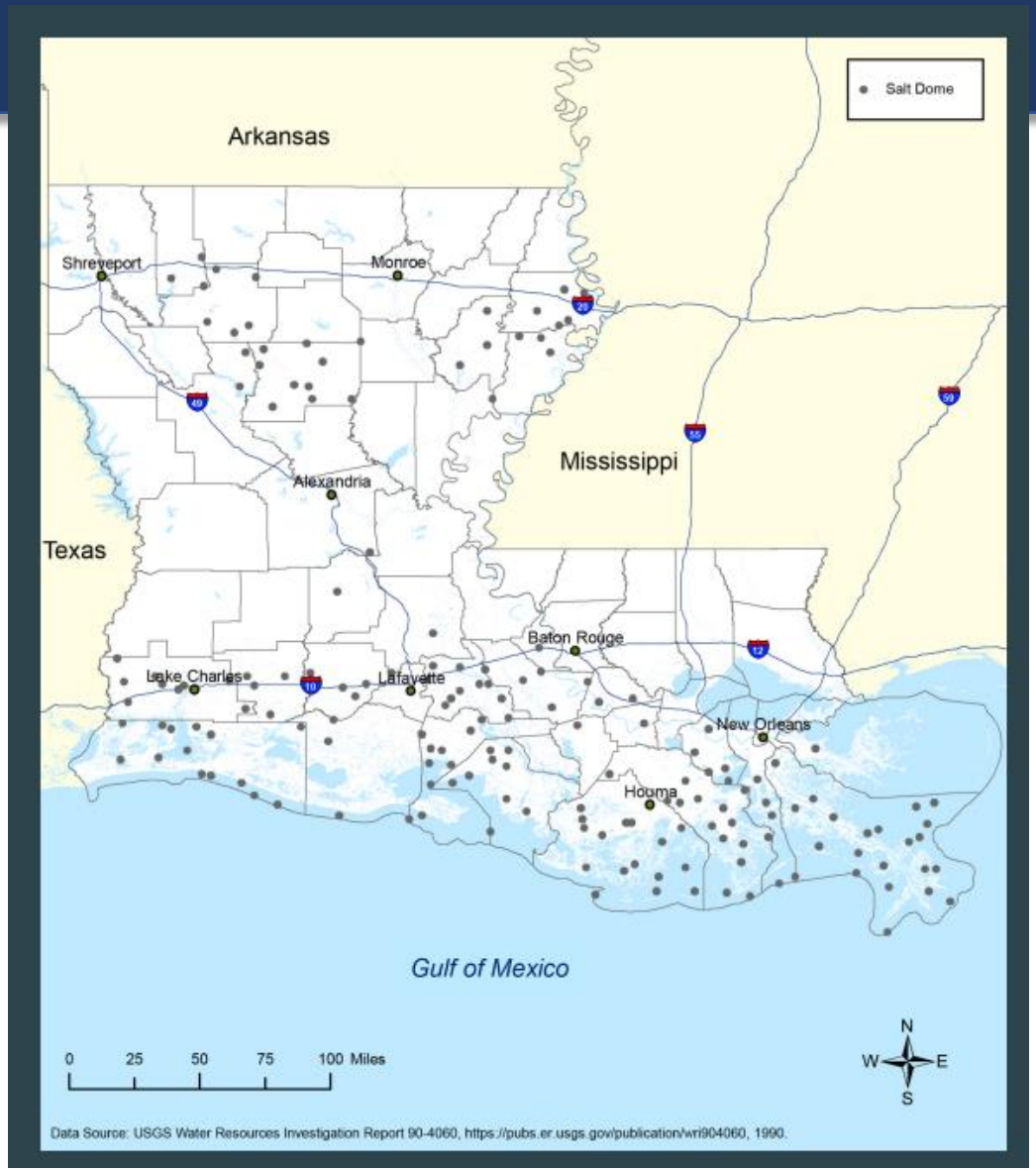


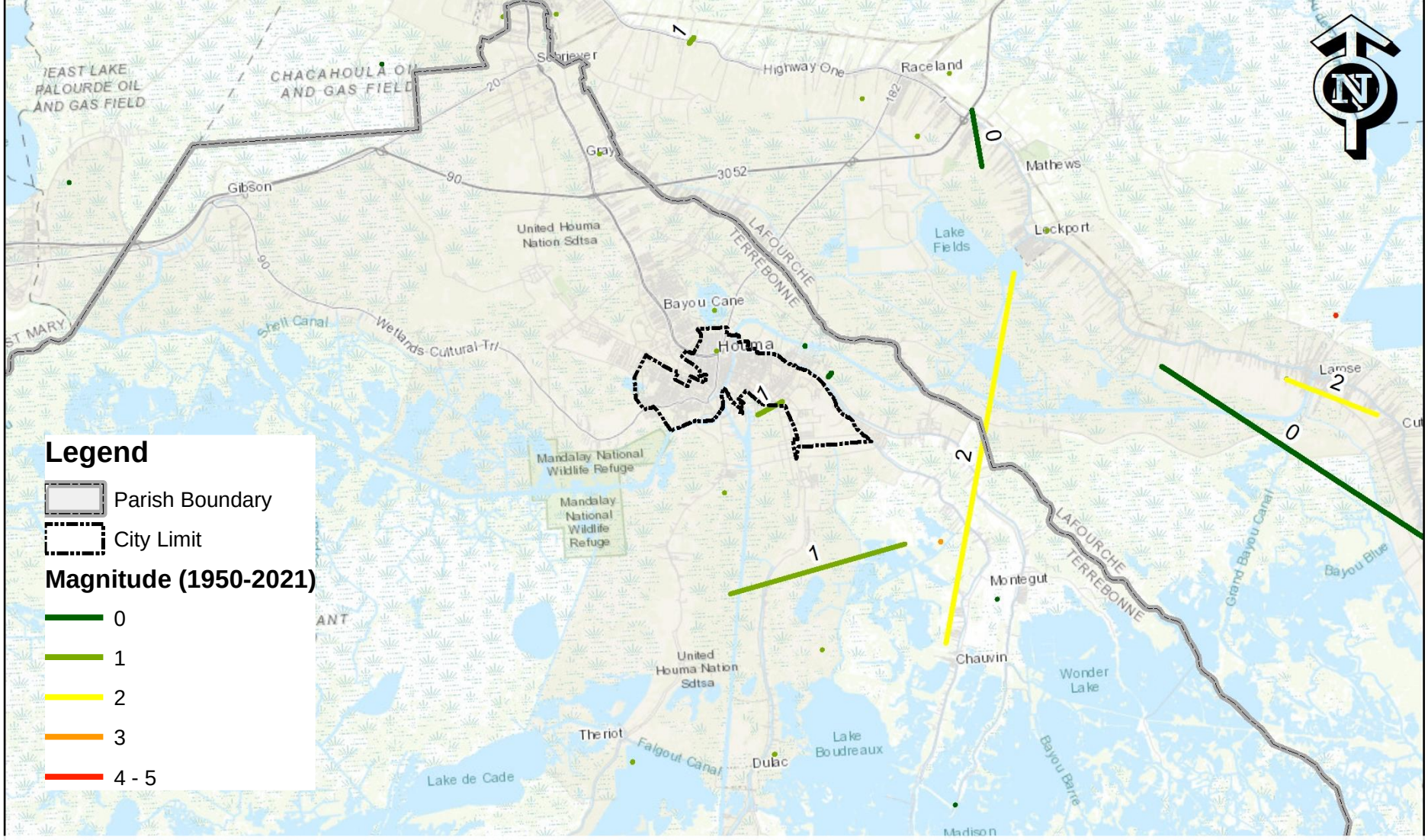
Hurricane Wind

Levee Reach


Legend
Floodgate
Drainage Area Levee Reach
Morganza to Gulf Levee Reach
Terrace
Impact Levee
Populated Place
State Highway
Railroad
Drainage Area
0 1.75 3.5 7
Miles
N
REFERENCE:Terrebonne Parish and CBI
TERREBONNE PARISH
LEVEE ANALYSIS AND MAPPING PROCEDURE
Sheet No.
1
LEVEE REACH
TERREBONNE PARISH GOVERNMENT
HOUMA, LA
DEADWOOD
DEADWOOD C
DEADWOOD D
DONNER
GIBSON
BULL RUN ROAD
ELLENDALE
GREENWOOD
BAYOU BLACK MARINA
LEVEE-BARRIER-ALIGNMENT
VALHI EXTENSION
SUMMERFIELD
2-1A
1-1A
BAYOU GARDENS
WILLIAMS AVENUE
1-1B (TBS)
1-1B (GSE)
CHABERT LEVEE
EAST HOUMA
SURGE
ASHLAND NORTH EXTENSION
WARD 7 EXTENSION
CONCORD LEVEE
ASHLAND NORTH
TINA STREET
CROZIER
LECOMPTE
LANE
HIGHRIDGE
CANE
BREAK
SUZIE CANAL
EXTENSION
MONTEGUT
WARD 7
REACH A USE
REACH B
NFL NORTH
UPPER DULARGE
EAST
LOWER LACACHE
SHRIMPERS
ROW
NFL SOUTH
REACH E
LOWER
DULARGE WEST
BOUDREAUX
CANAL
REACH F
MAYFIELD
BAYOU GRAND CAILLOU FLOODGATE
MAYFIELD
REACH F-1
LOWER DULARGE EAST
HOUMA NAVIGATION CANAL (HNC) FLOODGATE
REACH G-1
REACH G-2 PERMITTED
REACH H-1 PERMITTED
BUSH CANAL
FLOODGATE
BUSH CANAL
REACH H-3
PLACID CANAL FLOODGATE
REACH H-2
REACH I
ISLE DE JEAN
CHARLES (WEST)
ISLE DE JEAN
CHARLES EAST
REACH J-2
DUCKS
UNLIMITED
LEVEE
REACH J & J-3
REACH J-2A
POINT-AUX-CHENES
FLOODGATE
REACH J-1
REACH K
REACH L USE
4-8
4-1
ASSUMPTION
LAFOURCHE
TERREBONNE
ST. MARTIN
ST. MARY
SCHRIEVER
THIBODAUX
GRAY
BOURG
HOUMA
BAYOU BLUE
BAYOU CANE
Lake Palourde
Grassy Lake
Four Mile Bayou
Bayou Chene
Bayou Penchant
Bayou Espasa
Lake Theriot
Lake Penchant
Lake De Cade
Big Carencro Bayou
Carencro Lake
Jug Lake
Lost Lake
Bayou De Cade
Four League Bay
Lost Lake Pass
Lake Page
Lake Mechant
Blue Hammock Bayou
Fiddlers Lake
Bay Junop
Mud Hole Bay
King Lake
Mud Lake
Bay Long
Bayou Du Large
Caillou Lake
Bayou Sale
Bayou Petit Caillou
Madison Bay
Lake Billiot
Catfish Lake
Bayou Tete De Ours
Lake Salvador
Harvey Canal
Intracoastal Waterway
Company Canal
Bayou Lafourche
Lake Fields
Six Mile Lake
Grand Bayou
Petit Lac Des Allemands
Bayou Des Allemands
Dufrene Ponds

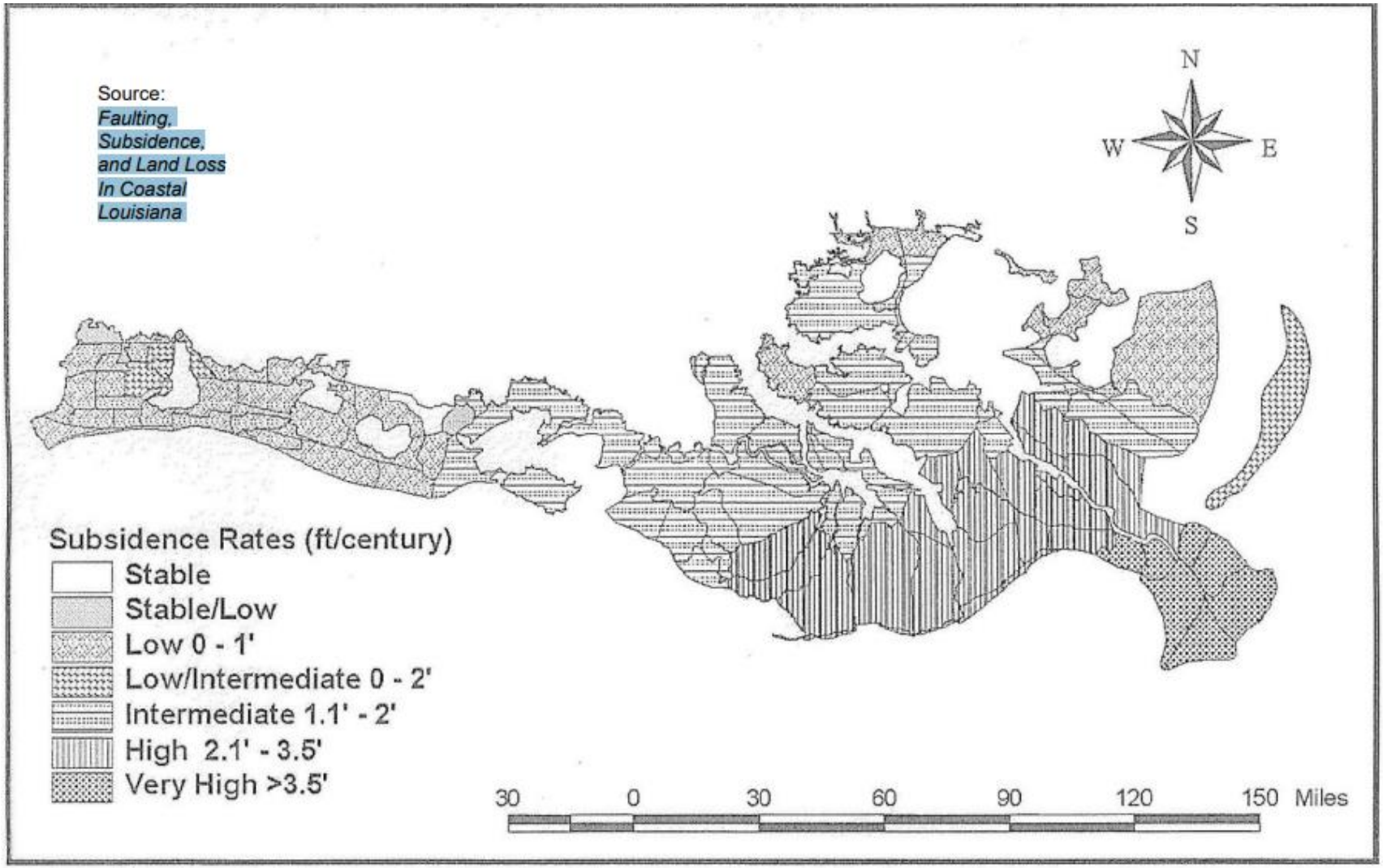
Saltwater Intrusion



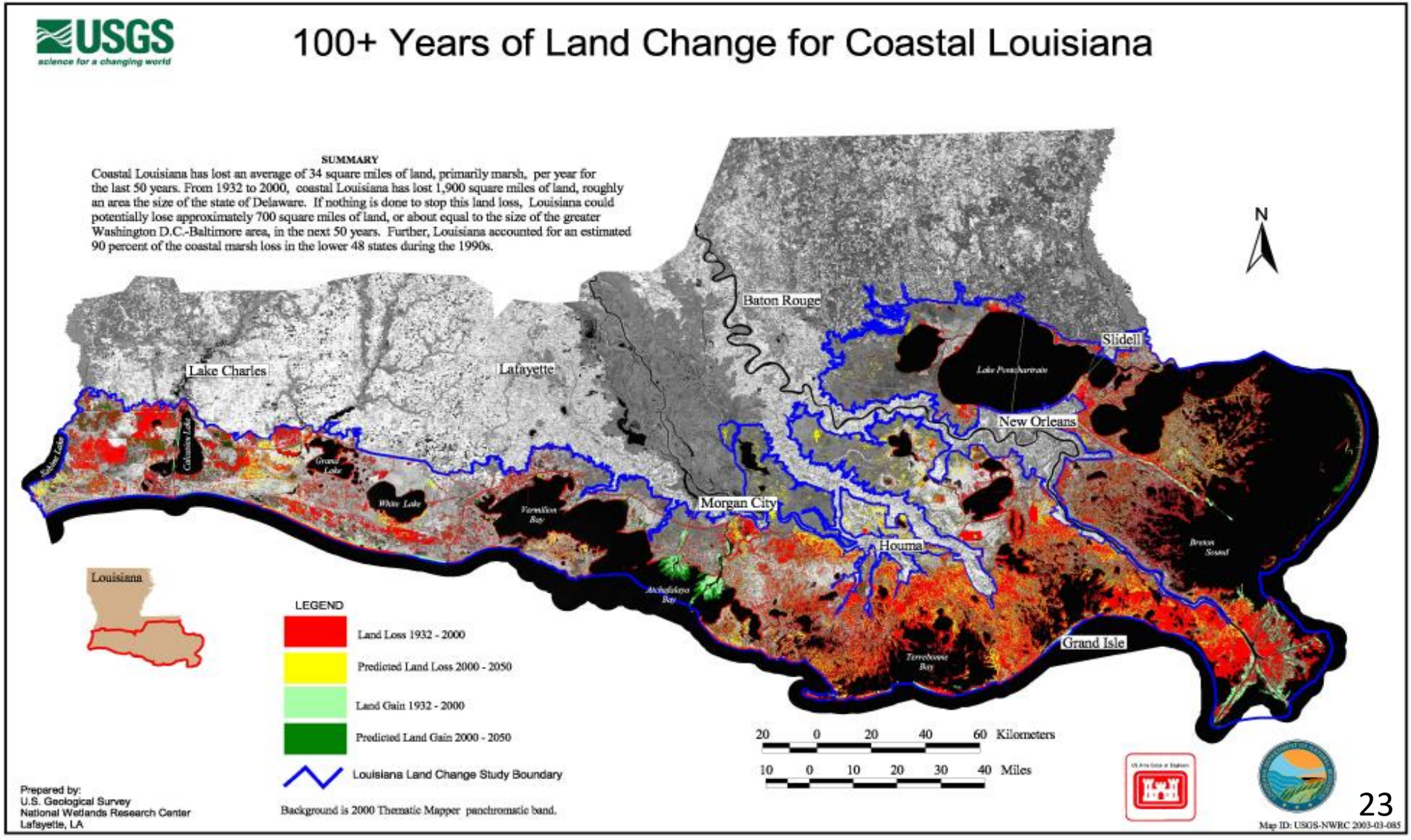


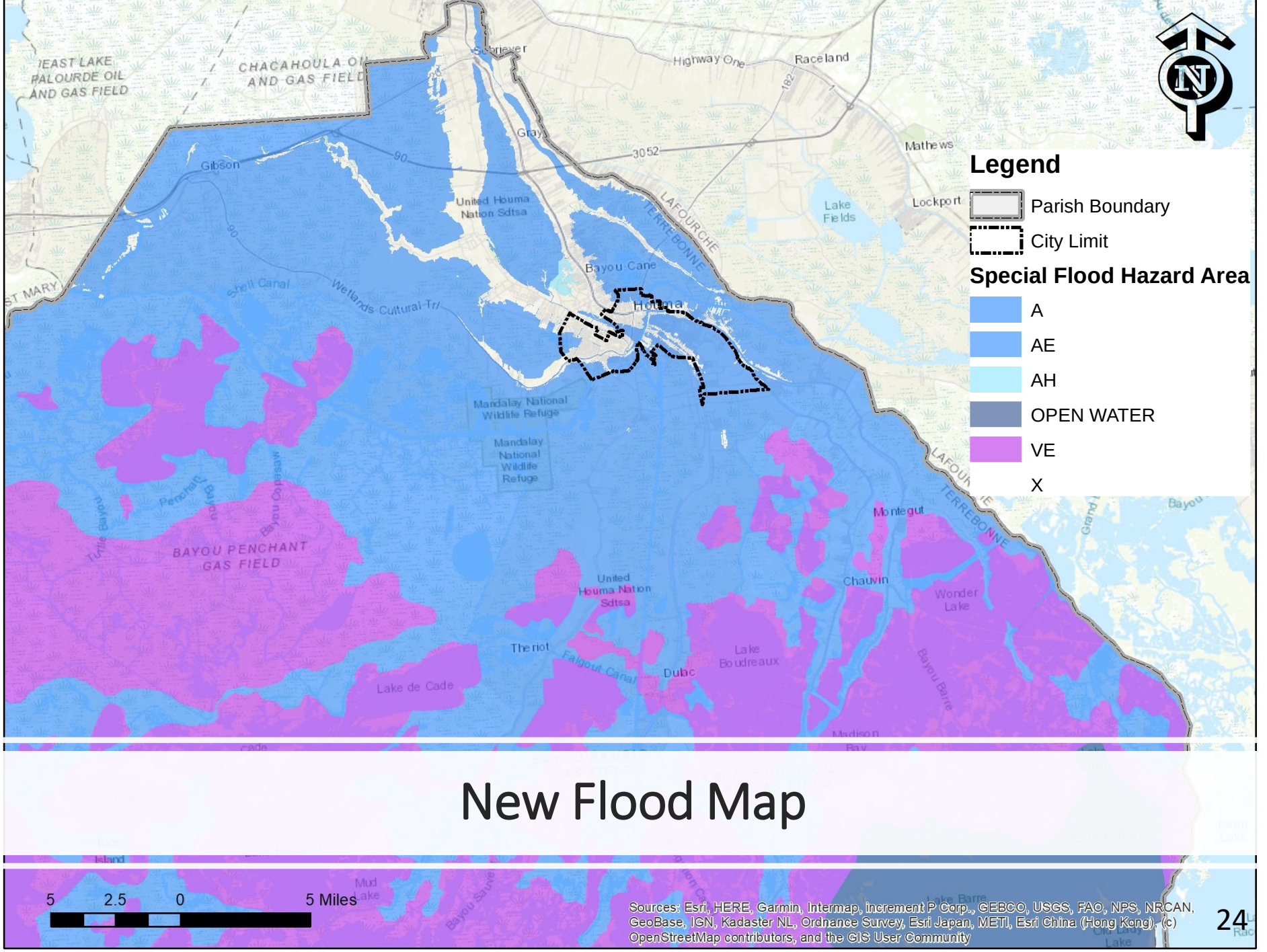
Tornadoes

Subsidence


Source:
Faulting, Subsidence, and Land Loss In Coastal Louisiana
N
W
E
S
Subsidence Rates (ft/century)
Stable
Stable/Low
Low 0 - 1'
Low/Intermediate 0 - 2'
Intermediate 1.1' - 2'
High 2.1' - 3.5'
Very High >3.5'
30 0 30 60 90 120 150 Miles

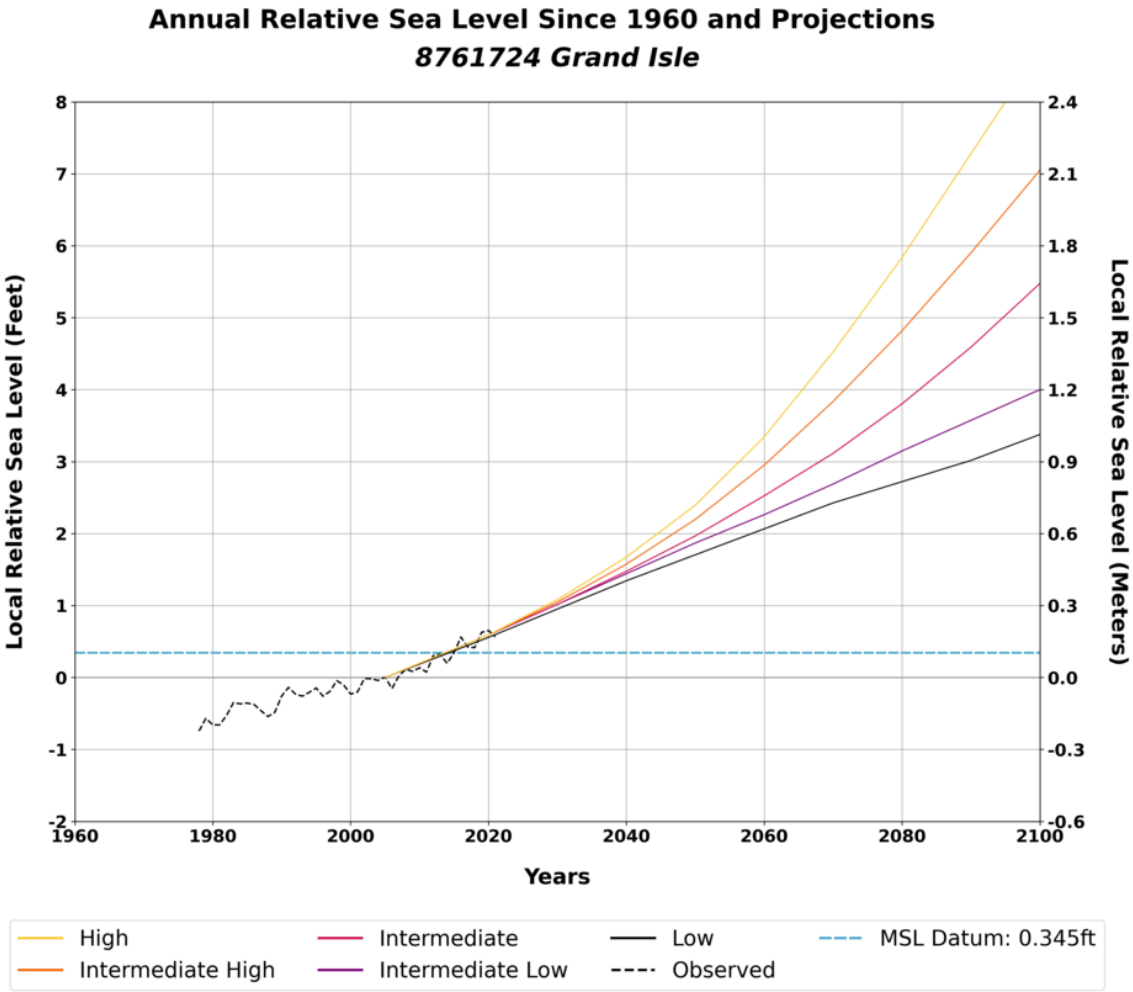
Coastal Erosion





New Flood Map

Sea Level Rise



Additional Flood Discussion

- Discuss
  - Flood sources and previous events
  - Levee breach locations
  - Future development in the floodplain
  - Climate change impacts
- Identify other locations of flooding

Next Steps

- Confirm critical facilities
- Review hazard impacts
- Assess the problems and potential impacts