

# Assessing Coastal Community Resilience



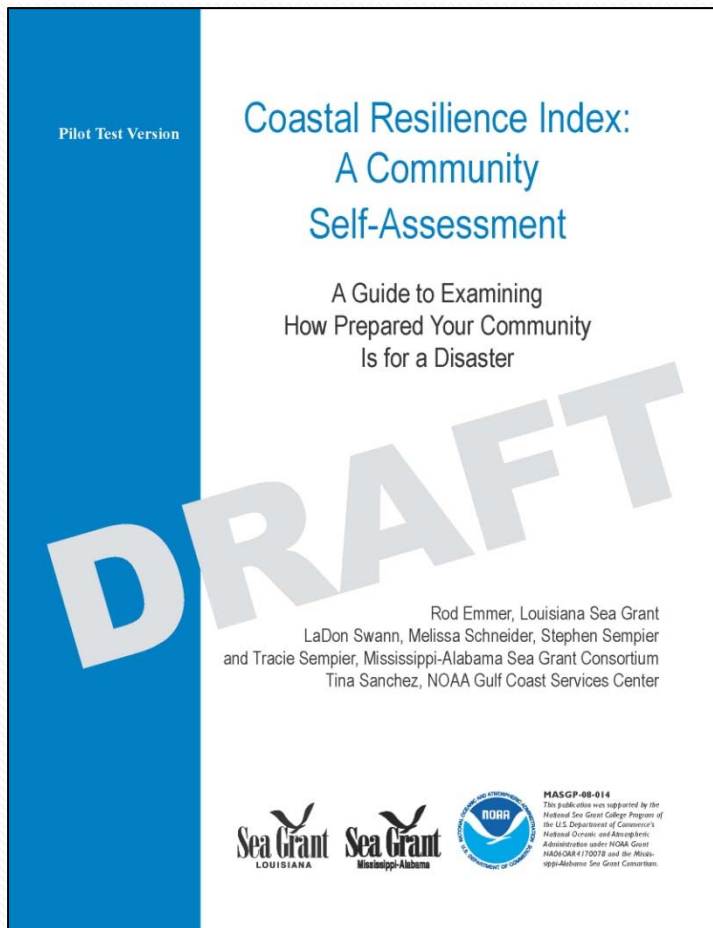
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Mississippi-Alabama Sea Grant Consortium



# Purpose of the Resilience Index

- Provide a simple, inexpensive method for community leaders to perform a self-assessment of their community's resilience to coastal hazards
- Identify weaknesses a community may want to address prior to the next hazard event
- For use within a community, not for comparison between communities

# Background Information



- Use information that is readily available
- Six tables in the twelve page document
- Mainly yes or no questions
- Complete in less than three hours

# Communities Build Scenarios

- Choose benchmarks based on
  - Historical records
  - Prior knowledge
  - Estimate worst case
- Variables
  - Wind speed
  - Rain
  - Storm surge
  - Direction
  - Duration
  - Tidal influence
  - Landfall location
  - Speed of movement

# Sections

- **Critical Facilities**
  - Infrastructure (e.g. water, sewage, electricity)
  - Facilities (e.g. city hall, police station)
- **Transportation Issues**
  - Evacuation route
  - Ability to travel within community after event
- **Community Plans and Agreements**
  - Mitigation plans
  - Certified planners and managers

# Sections

- **Mitigation Measures**

- Adopted building codes
- Education

- **Business Plans**

- Ability to rebound shortly after event

- **Social Systems**

- Cultural, faith-based, business, and civic networks

# Pilots

- Florida

- Ft. Myers Beach
- Marco Island
- Sarasota
- Cedar Key
- Steinhatchee



- Alabama

- Orange Beach
- Gulf Shores
- Dauphin Island
- Bayou La Batre



- Mississippi

- Pascagoula
- Ocean Springs
- Biloxi
- Pass Christian



- Louisiana

- St. Tammany Parish
- Cameron Parish



- Texas

- Port Arthur



# City of Sarasota





# Cedar Key, FL



Mayor Sue Collson, and Greg Lang, Director of Cedar Key Community Redevelopment Agency

Photos courtesy of Rosalyn Kilcollins  
Coastal Training Program Coordinator  
Apalachicola National Estuarine Research Reserve

# Critical Facilities Tool

[www.csc.noaa.gov/criticalfacilities](http://www.csc.noaa.gov/criticalfacilities)

- Assists communities in quickly identifying vulnerable areas (critical facilities and road miles)
- Allows users to print a report for each search
- Can choose county or community level of information

  
Search >>

## Coastal Resilience Index Critical Facilities Tool

### About This Tool

1. Check which elements to view:  Map  Results Table

2. Choose a State  then County or Municipality



### 3. Choose Visible Facilities

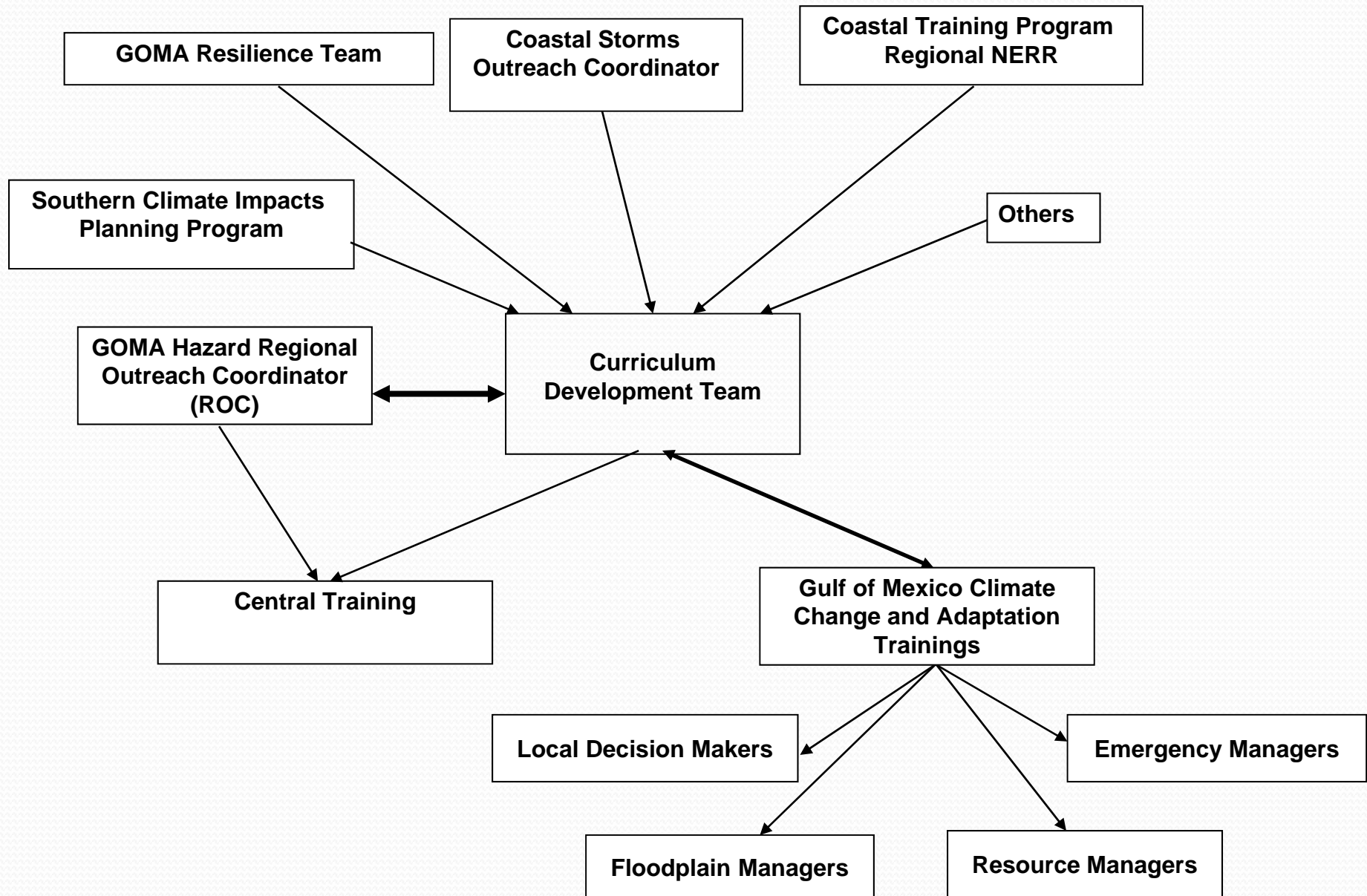
All Facilities:  On  Off

- Airports
- Communication Towers
- Electric Power Facilities
- Emergency Operations Centers
- Fire Stations
- Hazardous Materials Sites
- Medical Care Facilities
- Oil Facilities
- Police Stations
- Potable Water Facilities
- Rail Facilities
- Schools
- Waste Water Facilities
- Flood Zone
- Counties
- Municipalities

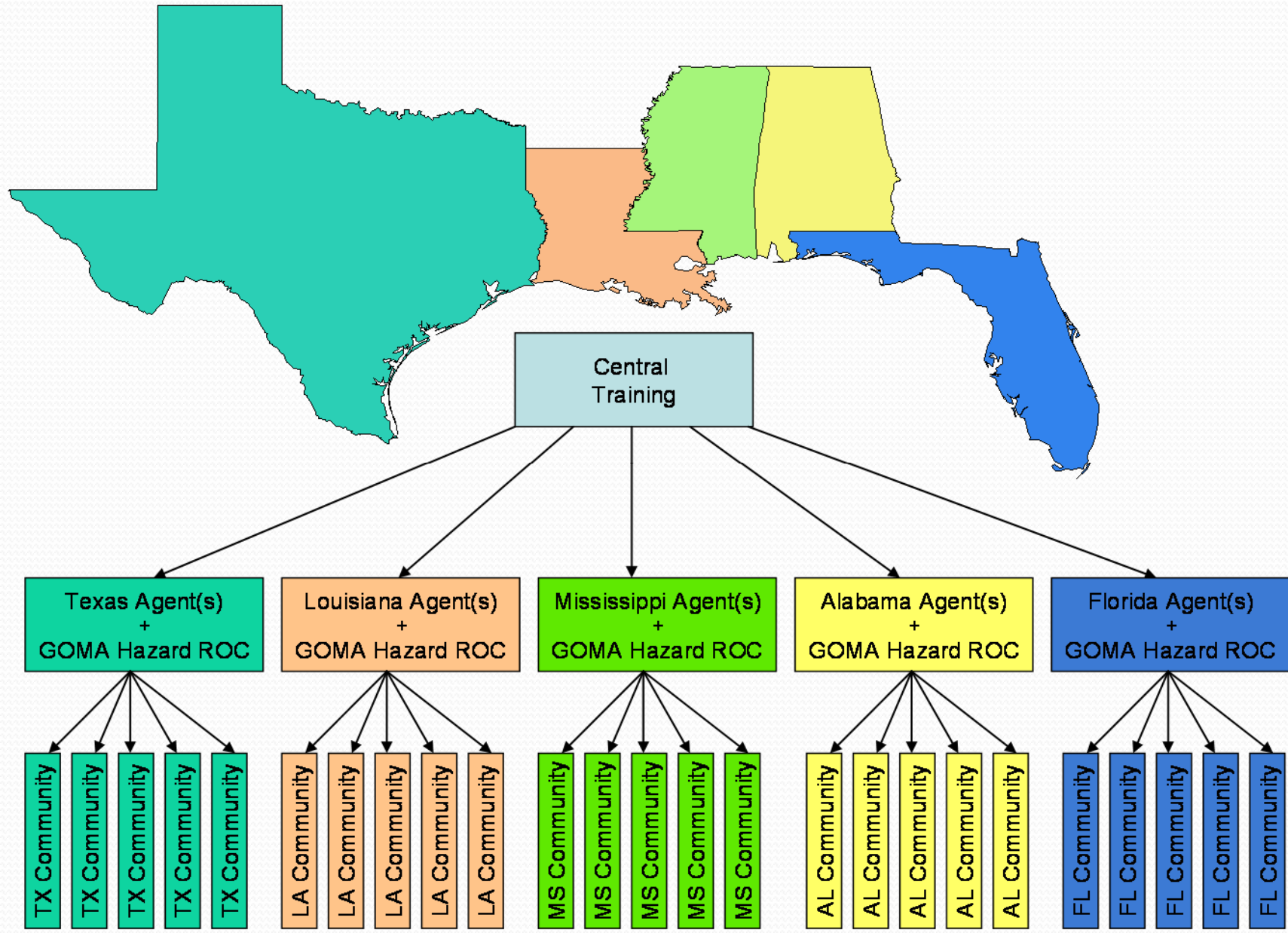
4. Use the search box to locate a missing facility (ex., school, County Hospital, etc.)

[View Printable Map](#)

# Implementation



# Implementation



# Evaluation

- Conduct informal assessments regarding the Index.
- Contact participants after a year has passed and ask them to complete the RI again.
- Compare RI results between years.
- Collect quantitative data.
- Triangulation of data to determine patterns of use, changes in behavior, and effectiveness of the tool communities use to assess their resilience.

# Expansion

- Index going national
- Include all five Gulf states in Critical Facilities tool
- Additional layers (SLR, wind)
- Bilingual edition

# *In Memoriam*



Dr. Rod Emmer

## Questions?

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