

# Planning for Resilience in Coastal Louisiana

**NCER 2011**

**Baltimore, Maryland**

**Leslie Suazo**

**Brown** AND  
**Caldwell**

# Resilience

- **The ability of human and natural systems to respond to and adapt to change.**
- **This change may take place over an extended period of time, (e.g. coastal land loss) or may be the result of a single, specific event such as a hurricane, or oil spill**

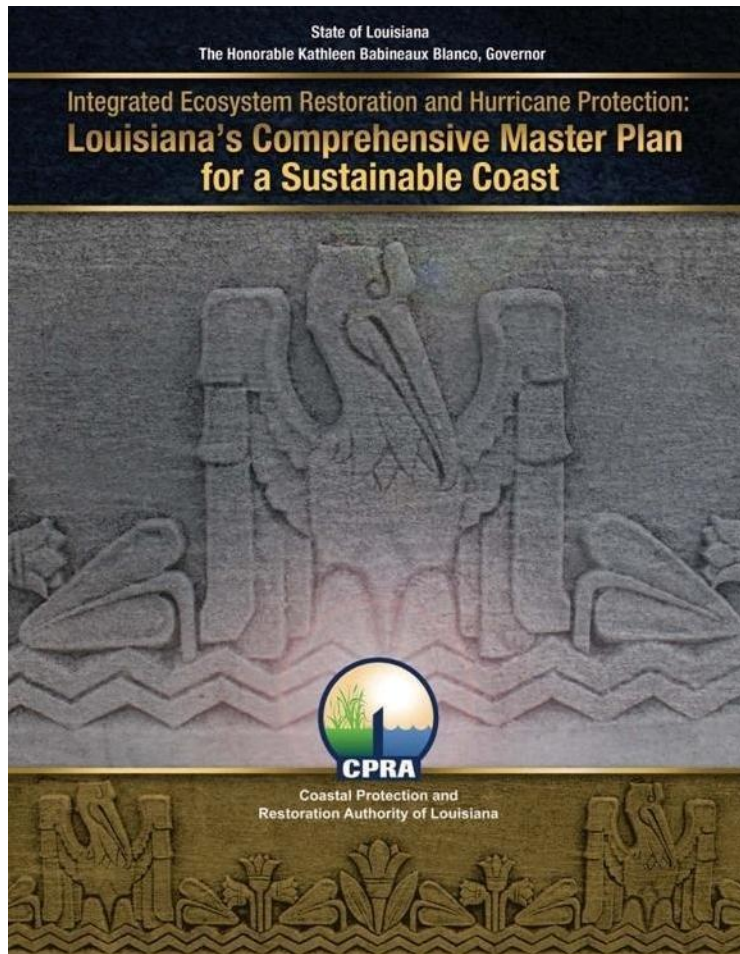


# The Challenge

- **Address risks associated with continued land loss, sea level rise, and increasing storm frequency and intensity**
- **Redesign & Redevelop coastal communities for greater resilience**
- **Maintain unique characteristics of community**



# Coastal Planning in Louisiana Post-Katrina & Rita



- **Louisiana's first Comprehensive Master Plan for a Sustainable Coast, adopted in 2007 acknowledges the need for communities to be able to recover from and adapt to change, i.e. to become more resilient**

# What can communities do to become more resilient

- **Planning across geography and across Disciplines:**
- **Planning**
- **Architecture**
- **Engineering**
- **Provide for Immediate Response and Recovery in cases of catastrophic event, as well as long term efforts to address land loss, sea level rise, etc...**



# Louisiana Speaks

- **Recover Sustainably**
- **Grow Smarter**
- **Think Regionally**



# **First Key Strategy Recover Sustainably**

**“Enable our recovery by adopting the Louisiana Coastal Protection and Restoration Authority’s Comprehensive Master Plan for a Sustainable Coast to make us safer from storms, by linking land use, transportation and economic development policies to the CPRA.”**

# **Second Key Strategy Grow Smarter**

## **Louisiana Speaks Pattern Book**

**Provides Guidance for planners and builders to achieve the goal of Safer, Stronger Smarter growth, while preserving cultural and social traditions and the particular aspects of house and community design essential to doing so**



# An Expanded Role for NGOs and Academia



**AMERICA'S ENERGY COAST LEADERSHIP FORUM**  
"BLUE RIBBON RESILIENT COMMUNITIES:  
*Envisioning The Future of America's Energy Coast*"

**LAFORCHE & TERREBONNE PARISHES**

SAVE THE DATES

**SEPTEMBER 28-29, 2011**  
Courtyard by Marriott  
142 Library Drive, Houma, LA

RSVP to Karen Gallagher (202) 631-9313 or via email at [kg@mcopr.com](mailto:kg@mcopr.com)



The University of New Orleans - Center  
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**Disaster Resilient**  
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UNO-CHART EXECUTIVE PROGRAM

FRIDAY, APRIL 8, 2011 // 9:00AM - 2:00PM

REGISTRATION/CONTINENTAL BREAKFAST 8:00 - 9:00AM  
LUNCHEON WITH KEYNOTE SPEECH 11:00AM

**EXECUTIVE PROGRAM IN  
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EXCLUSIVELY FOR LEADERS IN GOVERNMENT AND BUSINESS IN SOUTHEAST LOUISIANA

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EDUCATE  
LOUISIANA



**Guest Speakers:**

**DR. GAVIN SMITH,**  
Executive Director,  
UNC Center for the Study of  
Natural Hazards and Disasters

**DENNIS KNOBLOCH,**  
Former Mayor,  
City of Valmeyer, IL

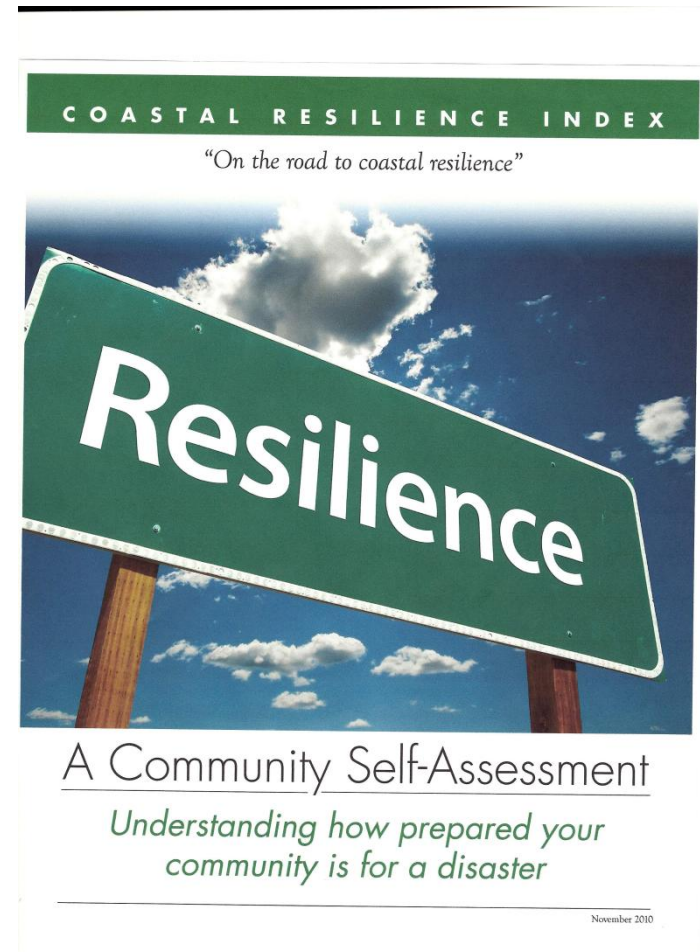
**JOHN WILSON,**  
Director of Public Safety,  
Lee County, FL (Invited)

This project is funded by FEMA through the Louisiana Governor's Office of Homeland Security & Emergency  
Preparedness (GOHREP), Hazard Mitigation, Community Education and Outreach (CEO) grant.

RSVP AT [CHART.UNO.EDU](http://CHART.UNO.EDU) BY APRIL 1<sup>ST</sup> TO RESERVE YOUR SEAT!

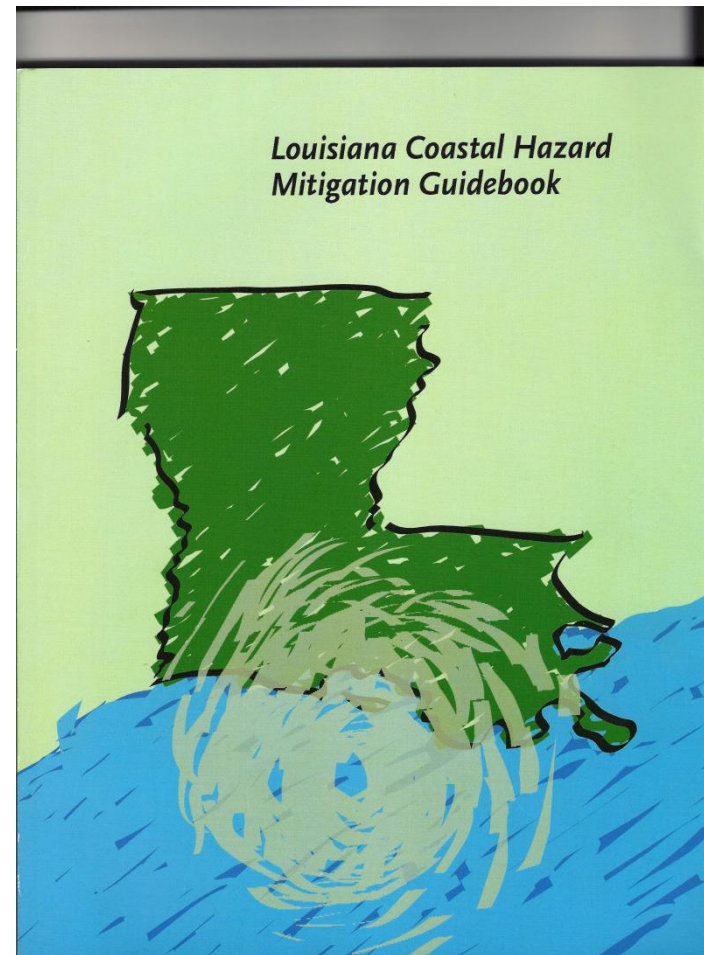
# Gulf of Mexico Alliance Coastal Resilience Index

- **Community Self-Assessment tool**
  - **Designed to help a community assess its capacity to return to a normal level of functioning after a storm event.**
  - **Can be unitized by a community to address weak spots in disaster response prior to an anticipated event**
  - **Partners include Sea Grant Agencies from Texas, Louisiana Florida, Mississippi & Alabama and NOAA**
- **Twenty Communities have participated in Self Assessments by 2010. Facilitator training is ongoing**



# Louisiana Coastal Hazard Mitigation Guidebook

- **Bridges the gap between immediate-post disaster response and long-term recovery planning**
- **Brings together tools, techniques and policies to guide better decision making by coastal planners and elected leaders facing the ongoing threats posed by coastal hazards.**



# Louisiana Land Use tool Kit

- **Project consisting of 5 phases**
- **Includes a natural resource ordinance component as well as a natural hazards ordinance components.**
  - **Historic overview and geomorphology**
  - **Assessment of risk in the study area**
  - **Tools to guide users through an analysis of common problems and solutions**
  - **Traditional and modern approaches and practices**

# Community Strategy: Prevention

- **Structural Measures such as Hurricane Protection Systems that reduce risk from storm induced flooding are a necessity in many South La. Communities**
  - **Build levees, sediment diversions, fortify shorelines of flood prone areas, armor & fill**
  - **Build and maintain systems so that ecosystems remain dynamic and functional**
  - **Take steps to avoid induced flooding in low-lying communities**



# **Community Strategy: Adapt to a Changing Environment**

- **Use Smart Growth Principles**

**Adopt and enforce appropriate land use and zoning regulations to ensure the long-term viability of the region**

- **Prohibit development in wetland areas and require buffer zones near levees**
- **Strictly enforce the National Flood Insurance Program regulations**
- **Adopt and Enforce Appropriate Building Codes; Elevate , Retrofit or Buy Out Structures**

# Louisiana's 2012 Coastal Master Plan

- **Non-Structural Project Measures** being evaluated for cost- effectiveness relative to other project types
- **Funding** for implementation from other identified sources rather than coastal program funding.
- **Goal is to link communities to appropriate resources** for its particular need
- **Resilience principles** embedded in planning framework

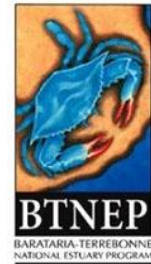
# Framework Development Team



NICHOLLS  
STATE UNIVERSITY



NOAA FISHERIES SERVICE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



OFFICE OF  
Coastal Protection  
and Restoration





# Questions?

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