



THE WATER INSTITUTE OF THE GULF

Alyssa Dausman, PhD
Vice President for Science



THE WATER INSTITUTE
OF THE GULF®





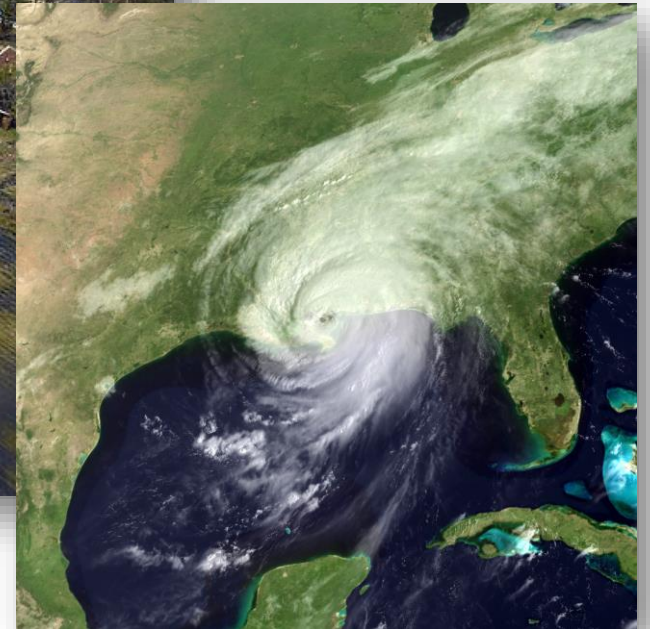
IMPROVING GULF RESILIENCE TO DISASTER AND FURTHER OPPORTUNITIES



**THE WATER INSTITUTE
OF THE GULF[®]**



POST-HURRICANE KATRINA



NEW APPROACH SOUGHT

- Louisiana leaders look for new approach to water management
- Multiple trips to Netherlands and Deltares
- Determined need to set up a research institute based on Deltares model



AN INTEGRATED APPROACH TO SOLVING THE CHALLENGES OF COASTAL LOUISIANA AND THE MISSISSIPPI RIVER DELTA



GUSTAV, IKE, AND ISAAC

- Hurricane Gustav –
September 1, 2008
- Hurricane Ike –
September 13, 2008
- Hurricane Isaac –
August 28, 2012



Source: USGS
Cameron Parish Sept. 9 and Sept. 15, 2008

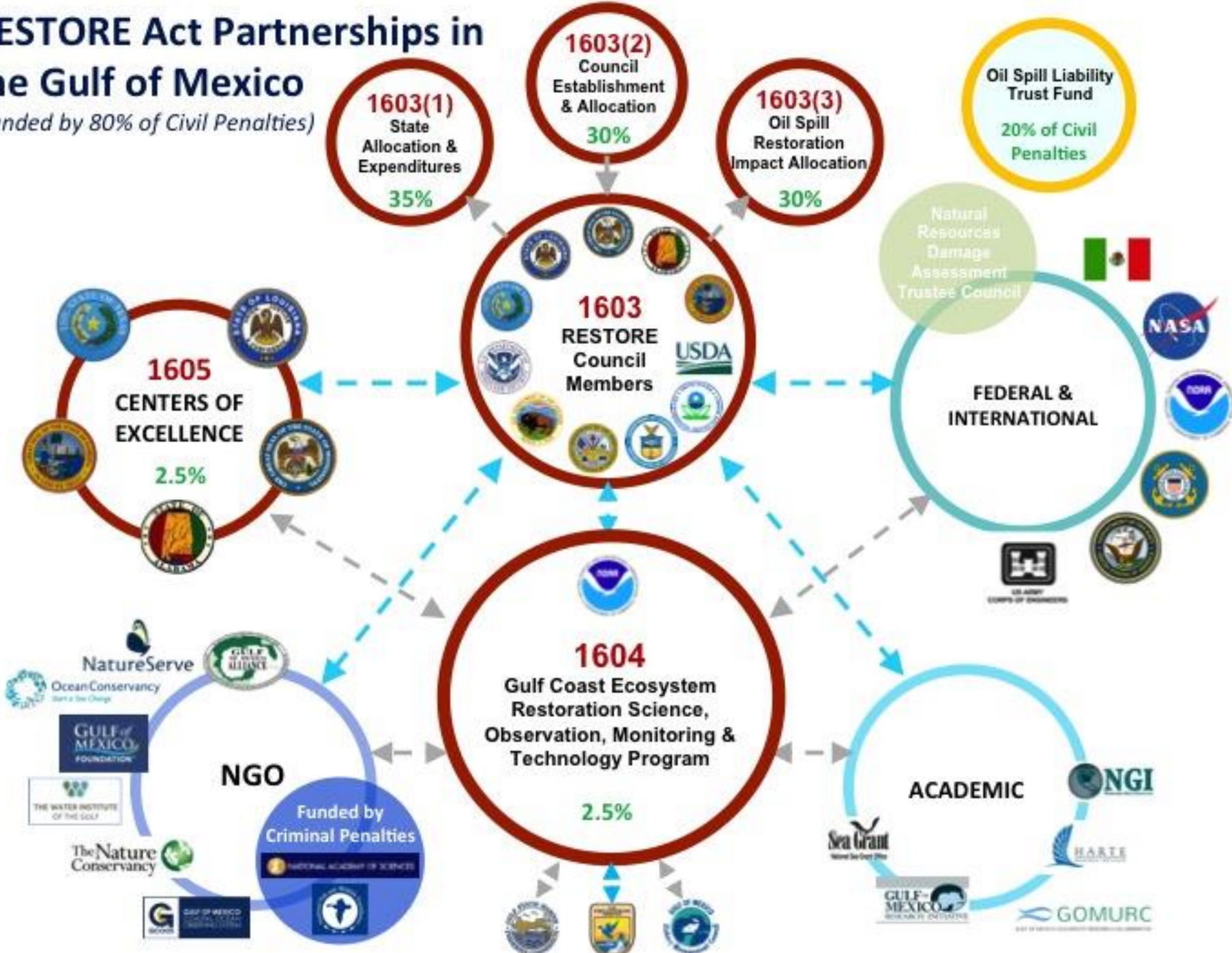


APRIL 20, 2019



RESTORE Act Partnerships in the Gulf of Mexico

(Funded by 80% of Civil Penalties)



PLAN FOR YOUR TEAM



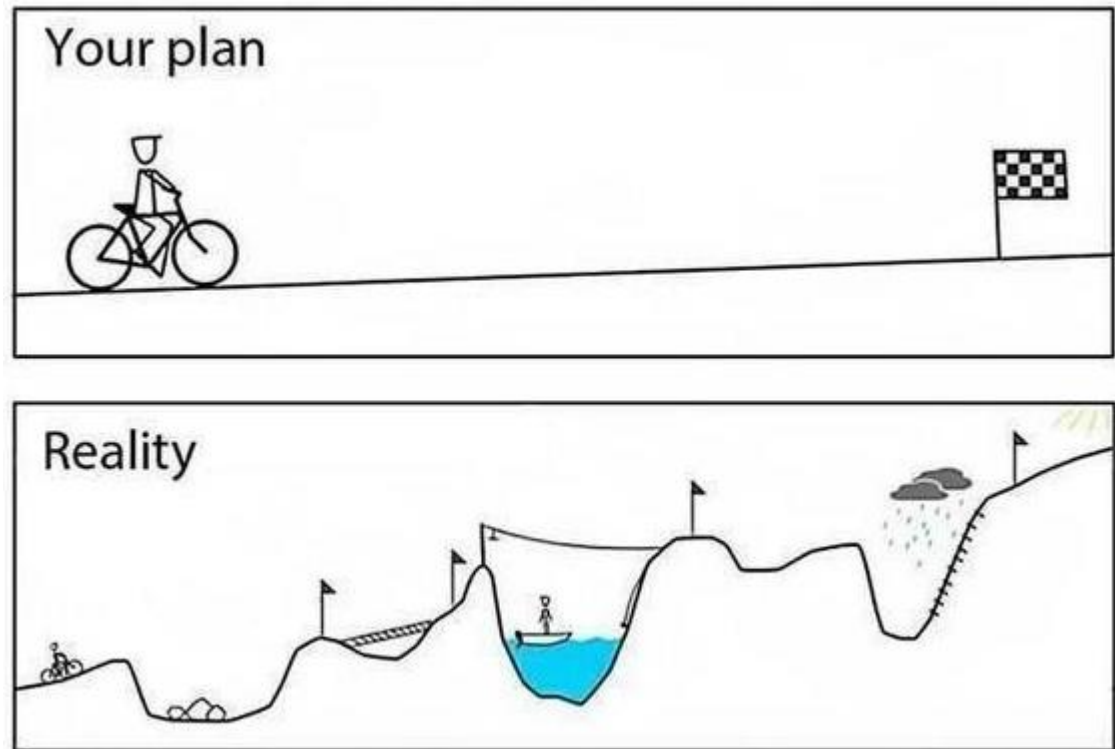
PLAN FOR YOUR RESEARCH

- Know your risk
- Develop a plan
- Prepare what you'll need to put that plan in place



NO PLAN IS PERFECT

- We make a plan
- Disaster hits
- Plans change
- Flexibility is key



FLEXIBILITY

- Look beyond borders
- Think big
- Accept that it's O.K. if your previous planning needs to be changed

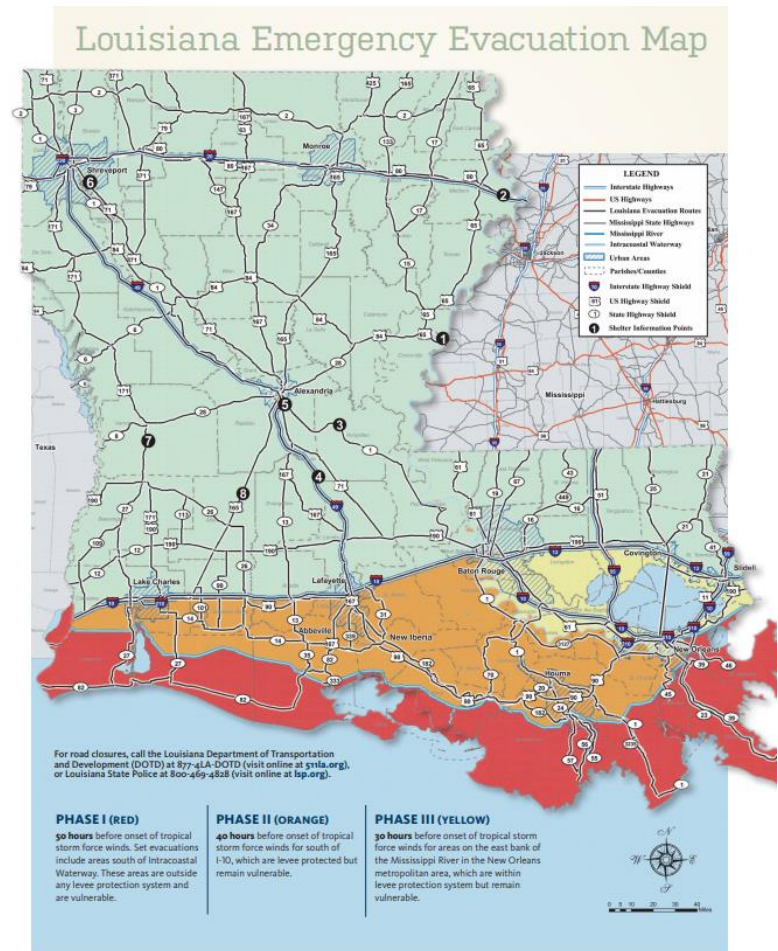


Figure 1: ESF-6 Resource Support Responsibility Chart¹

Agency support to the Louisiana Department of Children & Family Services and the Louisiana Workforce Commission	Shelter	Mass Feeding	Housing	Individual Assistance	Community Action	Transportation
Governor's Office of Homeland Security and Emergency Preparedness	X	X	X	X	X	X
Louisiana National Guard	X					X
Department of Agriculture & Forestry	X	X				
Department of Culture, Recreations and Tourism	X				X	
State Fire Marshal Office	X				X	
Governor – Office of Elderly Affairs	X			X	X	
Department of Veterans Affairs	X			X		
Louisiana State University System	X			X	X	
Louisiana Department of Health	X			X		
Department of Public Safety and Corrections	X	X		X	X	
Louisiana Board of Regents	X	X	X		X	
Department of Revenue	X			X	X	
Department of Insurance	X		X	X		
Louisiana Housing Corporation	X		X	X	X	
Department of Natural Resources	X					
Department of Transportation and Development						X
Department of Corrections	X					
Louisiana State Police	X					
Governor – Office of Disability Affairs	X			X	X	
Volunteer Agencies Active in Disasters (and other Non-governmental Organizations (NGO)) *	X	X	X	X	X	
Southern University System	X					
Department of Economic Development	X					
Department of Environmental Quality	X					
Department of Justice	X					
Department of Treasury	X					
Department of Wildlife and Fisheries	X					
Department of Education	X					
Louisiana Public Service Commission	X					

* To include private relief organizations (i.e. American Red Cross, Salvation Army, Mennonite Disaster Service, etc.); private industry; professional associations and participants in mutual aid agreements, etc.

¹ Derived from the *State of Louisiana Emergency Operations Plan, Appendix 1 – ESF 6*, July 2014

KNOWING OUR CAPACITY:

**-HOW TO HELP
EACH OTHER**

**-DEVELOP
“ONE PAGE”
PROPOSALS**

AFTER DISASTER STRIKES

- Rapid Response Grants
- Foundations
- Government
- Think outside of the box

The key is building these relationships over the years BETWEEN disasters.



STEPS AT/AFTER DISASTER TIME

INTERNAL

- What do we have
- What can we provide
- What are our risks

FUNDING PARTNERS

- Find/modify one-pagers
- Call funders
- Offer services

TOGETHER

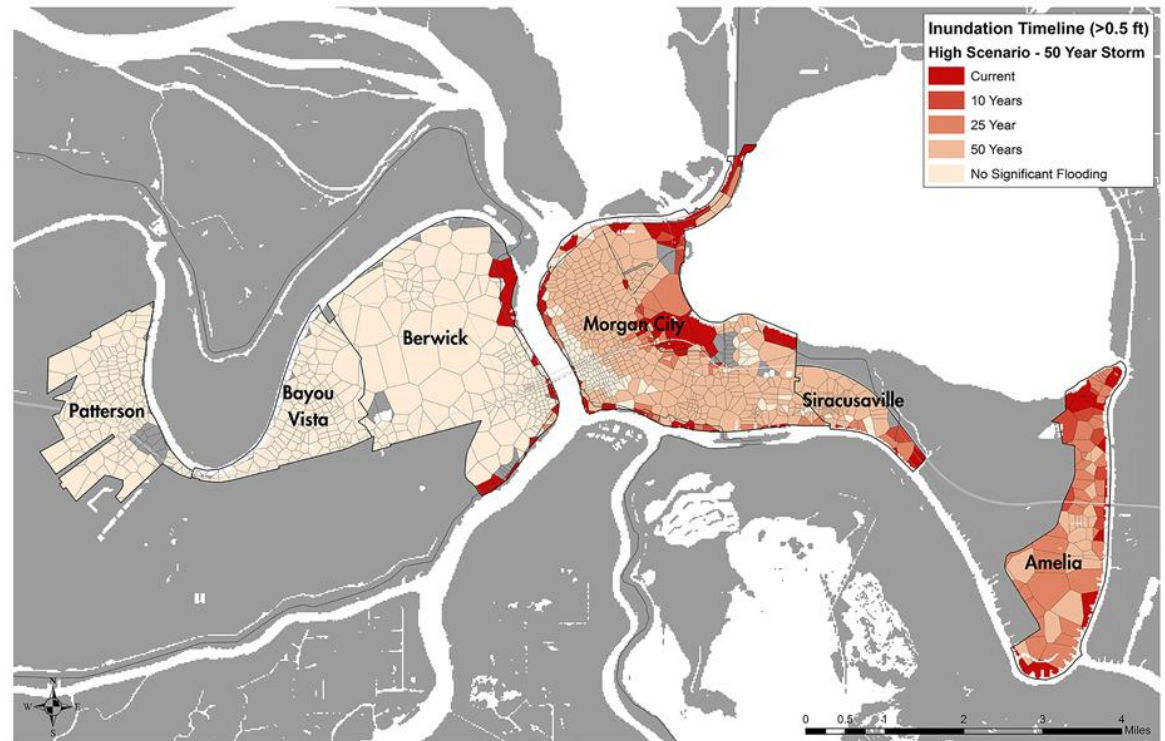
- Share our resource list
- Share our vulnerability
- Share what we think we may need
- Cross reference based on disaster location and type
- Phone/email tree (text and email often work even with phones do not)



FUNDING FOR RESILIENCE RESEARCH & DISASTER RESPONSE

Identifying the vulnerability of critical infrastructure

- Federal
- State
- Local
- NGO
- Foundations
- Industry



Funding from Jesco Environmental and USACE

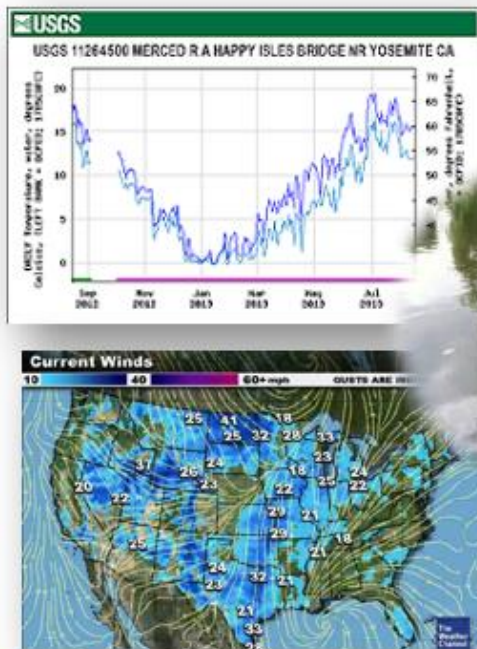


LOCAL PARTNERSHIPS

Calcasieu Parish Police Jury: Real-time forecasting system development

Import Data

Observed data and
Large scale forecasts

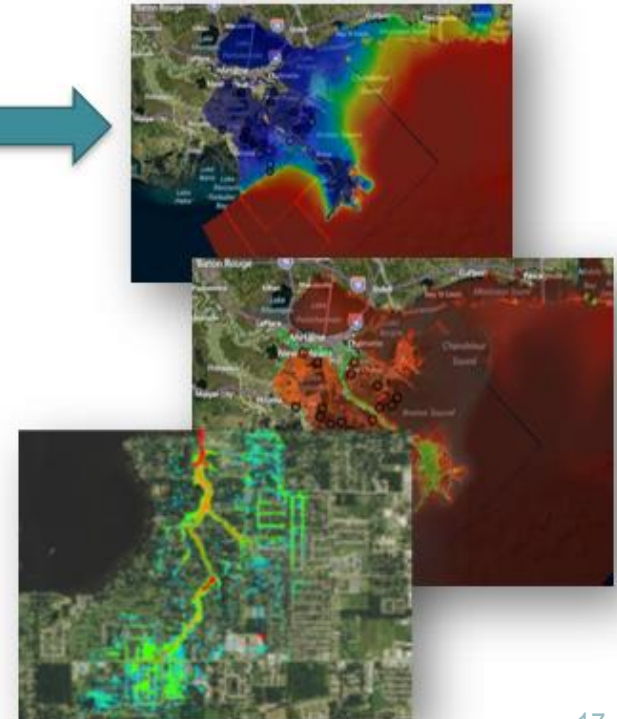


Inland & Coastal Model



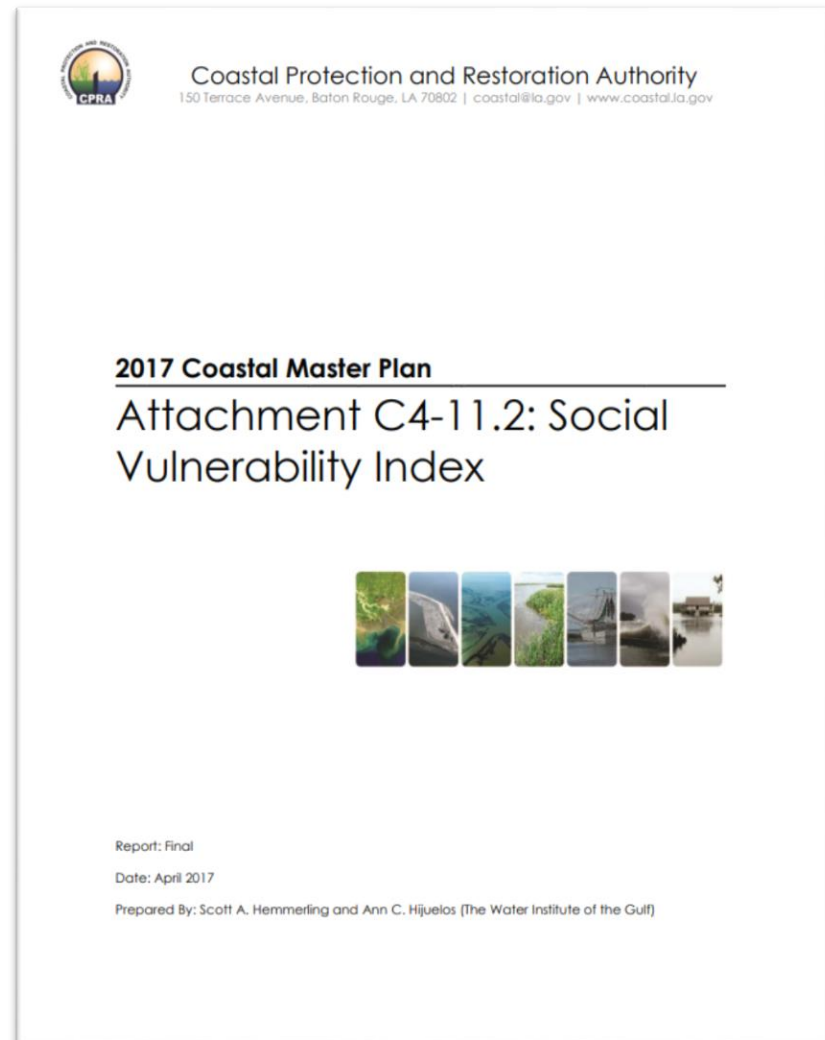
Model output

Maps and Timeseries



STATE FUNDING

- Develop multiple products as part of the state Coastal Master Plan
 - Social Vulnerability Index
- Potential
 - GOHSEP & LA National Guard
 - Emergency Response Support



NGOS

Coastal Advocacy Through Science Training

COAST program is working work with native communities to connect traditional ecological and cultural knowledge to regional restoration efforts.

Goal: Inform project planners on local considerations when developing restoration projects to improve resilience.



WHAT IS THE COAST PROGRAM?

Led by Restore or Retreat, the COAST program is a collaborative leadership development initiative for native communities in Lafourche and Terrebonne Parishes. The program will link coastal restoration with coastal culture through an examination of restoration-related scientific and social impacts.

WHAT IS THE PURPOSE?

The program's purpose is to bring together native communities in Lafourche and Terrebonne Parishes, and to connect them with coastal scientists to share knowledge and take action related to environmental restoration and cultural impacts.

WHAT WILL BE THE FOCUS?

Sessions will focus on the benefits of nature-based, basin-wide restoration solutions to benefit native communities and to maintain strong connections to the coastal landscape.

HOW DOES IT WORK?

The COAST program will work with local native communities to connect their traditional ecological and cultural knowledge to regional restoration efforts. This, in turn, will inform project planners on local considerations when developing restoration projects.

To do this, the COAST program will help bring together residents to map their community, both physically and through community conversations. This mapping process will not only create a record of areas important to the community and those that are at risk, but it will help the COAST team create a platform for bringing leaders from different native communities into conversations about coastal restoration. This will result in shared perspectives and knowledge regarding restoration activities taking place around the community. Sessions will occur in classroom settings, in the community as a whole, and on local field trips designed for the whole family. The COAST program will ultimately end in a restoration and/or resilience project designed by participants.



FOUNDATIONS



RESILIENCE LAB

AT THE WATER INSTITUTE OF THE GULF



INDUSTRY

Resiliency. Opportunity. Sustainability.



The Partnership for Our Working Coast is an alliance of industry and environmental partners collaborating to contribute to the coastal resiliency of our community, the environment, and the working coast.



RECOMMENDATIONS

- Share plans and what we can provide each other
- Understand capacities
- Develop "one page" research proposals:
 - Quickly respond in the case of a disaster
 - Prepare for a disaster (i.e. resilience research)
- Foster relationships with funders & approach/build
- Keep thinking outside of the box

EMERGENCY MANAGEMENT PROCESS





THE WATER INSTITUTE
OF THE GULF®

Thank You

adausman@thewaterinstitute.org



@THEH2OINSTITUTE

1110 RIVER ROAD S., SUITE 200, BATON ROUGE, LA. 70802
225-448-2813

WWW.THEWATERINSTITUTE.ORG

