

# Clean and Resilient Marina

National Working Waterfronts & Waterways Symposium

November 18, 2015



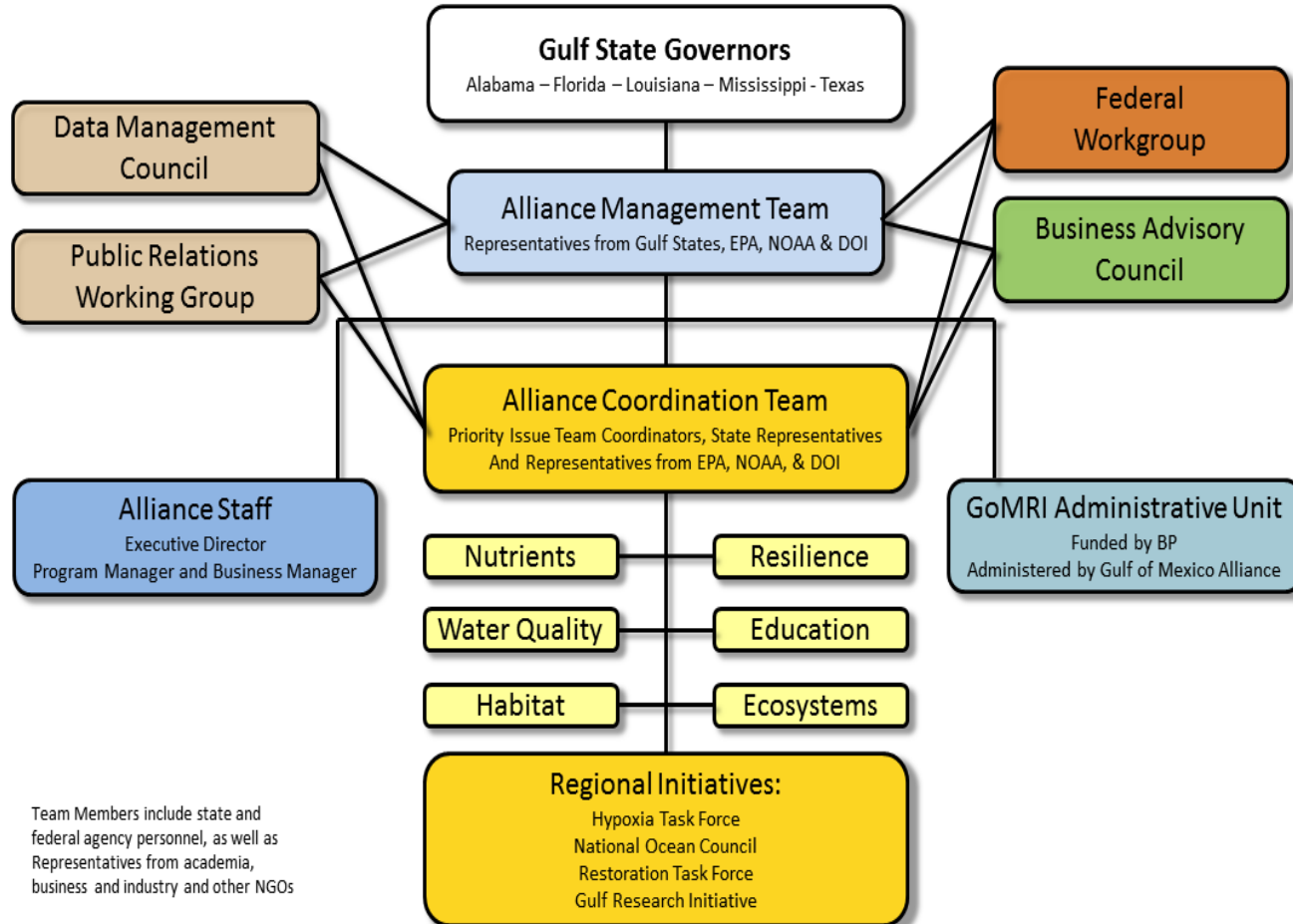


# Gulf of Mexico Alliance



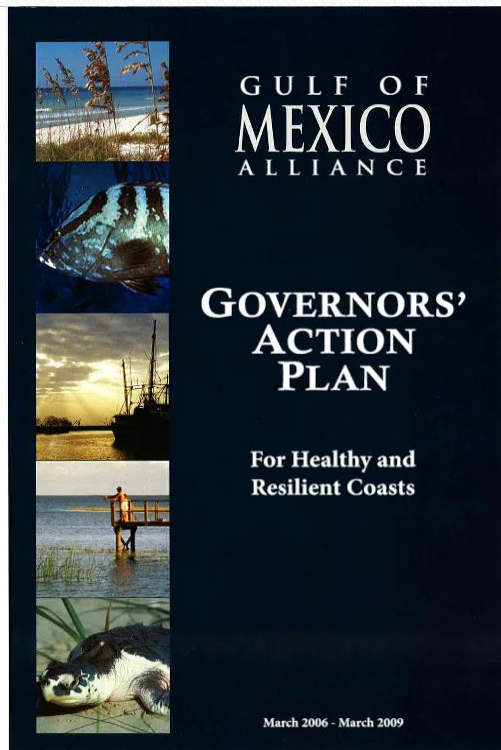
- The Gulf of Mexico Alliance is a partnership of the five Gulf States, federal agencies, academic organizations, business, and other non-profits in the region.

# Gulf of Mexico Alliance

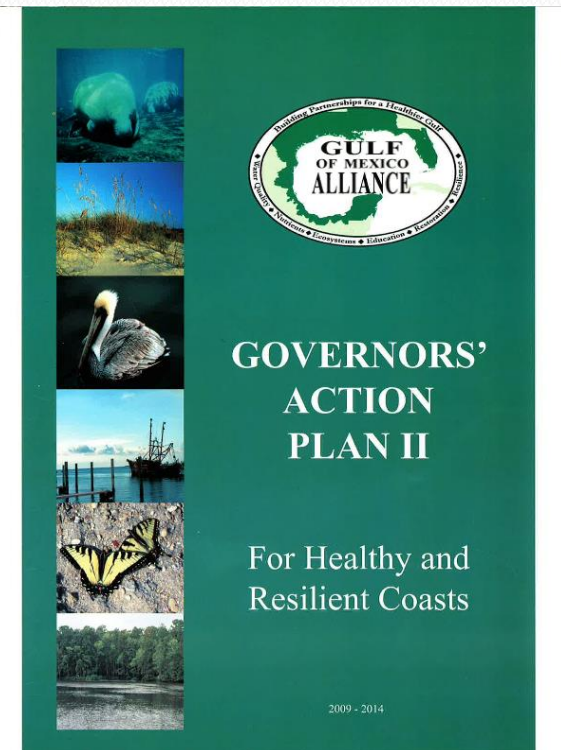


Team Members include state and federal agency personnel, as well as Representatives from academia, business and industry and other NGOs

# Gulf of Mexico Alliance



The Governors' Action Plan for Healthy and Resilient Coasts directs the Gulf of Mexico Alliance and provides an outline for the Alliance six priority issue teams



# Gulf of Mexico Alliance Priority Issue Team

- Pathogens
- Harmful Algal Blooms
- Mercury in Seafood
- Monitoring

Water Quality for  
Healthy Beach  
and Seafood



- Expanded Partnerships
- Policy Changes
- Technology Development
- Regional Sediment Plan
- Reversing the Downward Trend in Habitat and Ecosystem Services

Habitat  
Conservation and  
Restoration



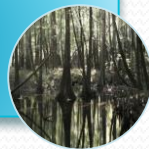
- GOM Master Mapping Plan
- Data Access and Acquisition
- Living Marine Resources
- Emergent Wetlands Status and Trends Report
- Ecological Services Valuation

Ecosystems  
Integration and  
Assessment



- Nutrient Characterization
- Nutrient Criteria Development
- Hypoxia
- Nutrient Reduction Strategies

Nutrients and  
Nutrient Impacts



- Risk and Resilience Assessment
- Risk and Resilience Management Toolbox
- Risk and Resilience Communication

Coastal  
Community  
Resilience



- Community Education and Outreach
- Public Awareness
- K through 20 Environmental Literacy
- Economic Value Communication

Environmental  
Education



# Coastal Community Resilience Team Mission

Coordinate and enhance efforts of local, state, federal, business and non-profit partners to assist coastal communities and ecosystems in the Gulf of Mexico region in becoming more resilient in structure and function.



# Coastal Community Resilience Focus Area



# Clean and Resilient Marinas Initiative



To promote and expand resilient and environmentally responsible operations and best management practices at marinas in the Gulf region.



# Gulf Coast Marinas

Coastal and Clean Coastal Marinas for TX, LA, MS, AL, and FL



Legend



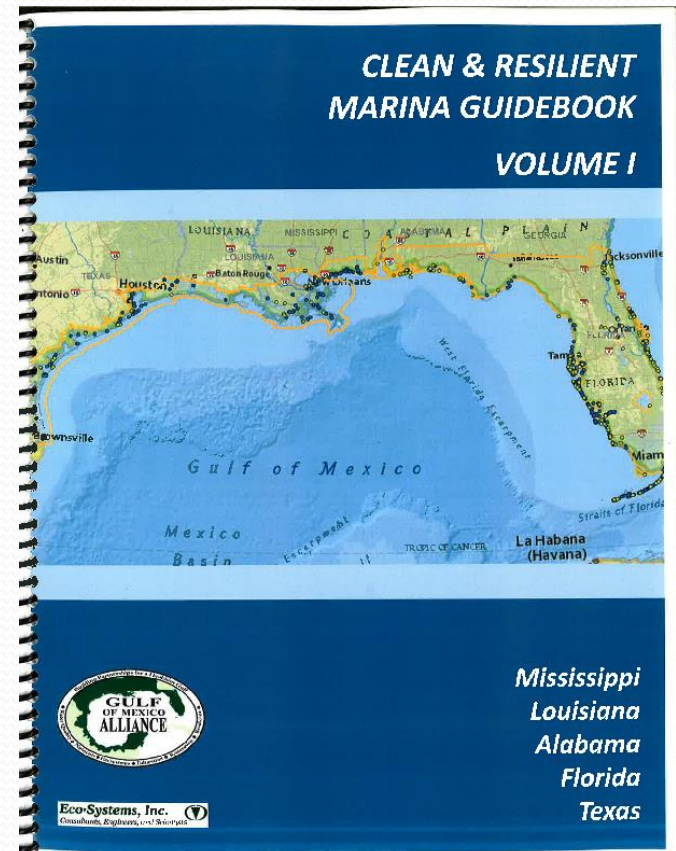
# New Guidebook Sections

## Emergency Evacuation

- Safe Harbors or Hurricane Holes
- Preparation for Storm Seasons
- Evacuation timing & Procedures

## Climate Adaptation & Recurrent Flooding

- Restoring naturally protective shoreline vegetation
- Promoting the use of moveable facilities and infrastructure
- Locating permanent facilities upland



## Resilient Practices in Place

- **Design & Siting** Double bracing structure on pier to avoid shifting during high winds and water
- Electrical systems designed to withstand salt water
  
- **Emergency Preparedness** Hurricane preparedness guide written into berthing agreement, and
  
- **Evacuation** Bait shop is trailerable and designed to be removed in a hurricane



Preparing for Tropical Storm Lee (Courtesy of marconews.com)

# Sample Tool: Hurricane Preparedness Plan

## Includes:

- Information required
- Pre-Storm Procedures
- Staff responsibilities
- Boater responsibilities
- Timeline counting down to storm

Condition	Activities
<b><u>Preseason</u></b>	Review and revise plans, lists, and inventories. Generate customer awareness and conduct employee training.
<b><u>Condition 5</u></b> Season Starts (June 1)	Normal operation. Monitor weather and continue hurricane awareness – ensure all parties have updated plans.
<b><u>Condition 4</u></b> Storm in Vicinity	A storm has developed and could pose a threat to coast. Assemble Leaders of the Hurricane Response Team to evaluate threat and review Hurricane Plan.
<b><u>Condition 3</u></b> 72 – 48 Hours to Landfall by the Hurricane Eye	A storm is threatening. Activate the full Hurricane Response Team. Begin implementation of Hurricane Preparedness Plan.
<b><u>Condition 2</u></b> 48-36 Hours to Landfall by the Hurricane Eye	A hurricane may strike within 36-48 hours. Complete securing of marina and boats. Hurricane WATCH has been issued by the National Hurricane Center and the County Emergency Management Agency probably recommends voluntary evacuation of islands and other low-lying areas. Determine marina closing and employee evacuation schedule. Establish limited entry.

# Clean and Resilient Marina Checklist

1

- Clean Marina Design

2

- Resilient Marina

3

- Emergency Planning

4

- Evacuation Procedures

5

- Sewage Handling

6

- Fuel Control

7

- Solid Waste Management

8

- Vessel Cleaning and Repair

9

- Stormwater Management

10

- Marina Staff Management

11

- Marina Boater Management

# Jody Compretta Marina

## Bay St. Louis, Mississippi



Jody Compretta Marina can accommodate you and your boat needs whether you need a 25' slip or a slip upwards of 100

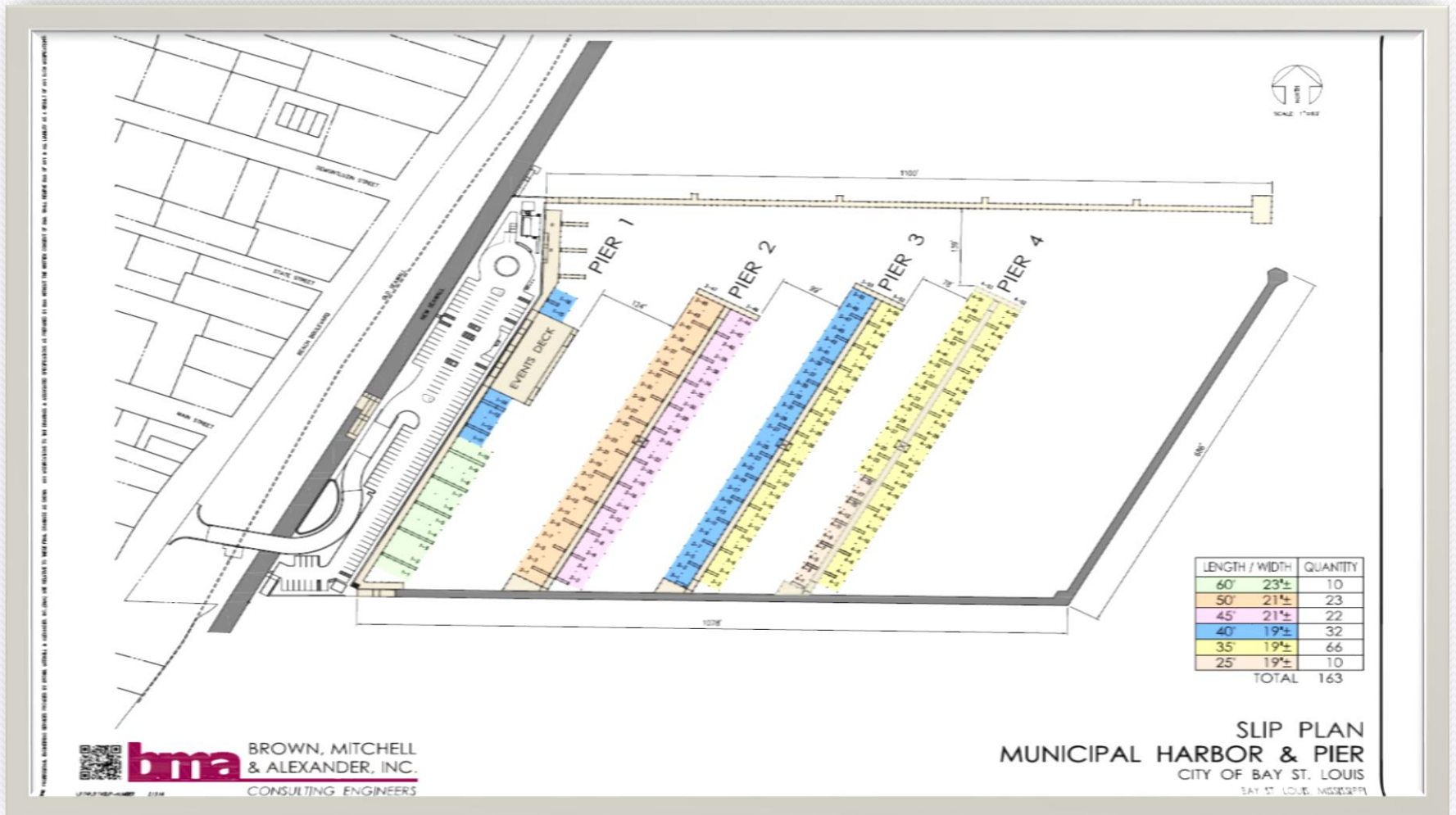


**Small Slips Range from 25' to 40'**



**Large Slips Range from 45' to 60'**

# Jody Compretta Marina Slip Plan





# Certified Clean and Resilient Marina



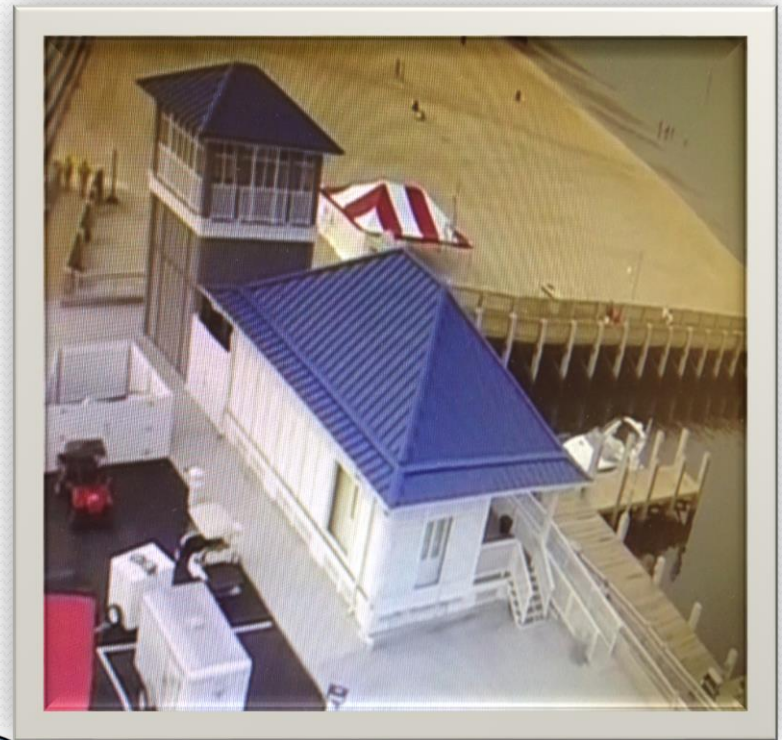
Bay St. Louis Harbor received the first Clean and Resilient Marina designation on the Gulf Coast since Hurricane Katrina Saturday, July 26, 2014

# Harbor Master Office



# Resilient Component

## “Detachable Harbor Master Office”



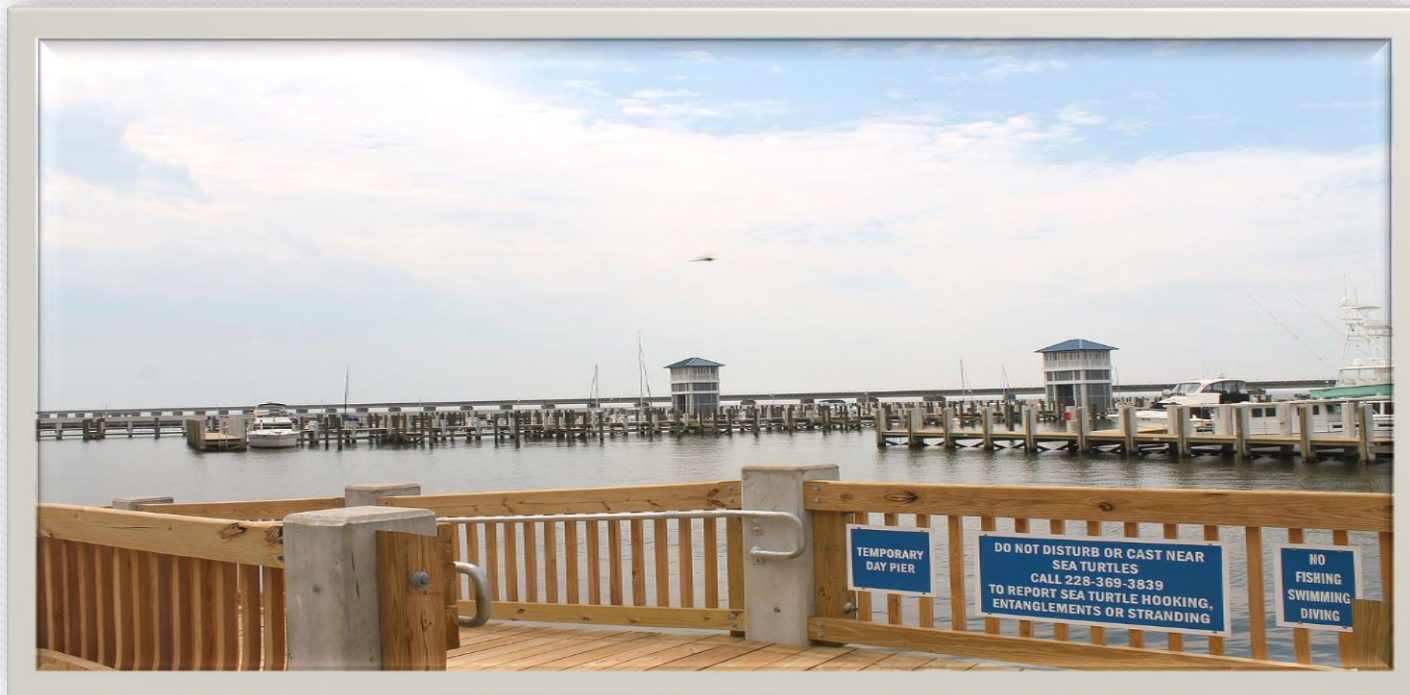
# Resilient Component “Detachable Comfort Stations”



# Resilient Component “Elevated Utility Towers”



# Resilient Component “ Signage & Accessibility ”



Clear signage regarding Clean practices around marina and meet accessibility standards



# Storm Water Management and Erosion Control



Multi-purpose seawall provides protection from soil eroding into waterways and offers ample seating for visitors during an event at the marina



# Storm Water Management and Erosion Control



Low-impact vegetation helps stabilize slopes and decreases erosion







# For more information about the Clean and Resilient Marina Initiative

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<http://www.gulfofmexicoalliance.org/2013/08/clean-resilient-marinas-initiative/>