



LA Master Plan: Assimilating Priorities of Multiple Stakeholder Groups

CEER

Jerome Zeringue

July 31, 2014



committed to our coast

If you do not change direction, you may end up where you are heading. - Lao Tzu

Year - 2009

Year - 2100



Map: Blum, M.D., and H.H. Roberts (2009), Drowning of the Mississippi delta due to insufficient sediment supply and global sea-level rise, *Nat. Geosci.*, 2, 488-491.

Louisiana's 2012 Coastal Master Plan

State of Louisiana
The Honorable Bobby Jindal, Governor



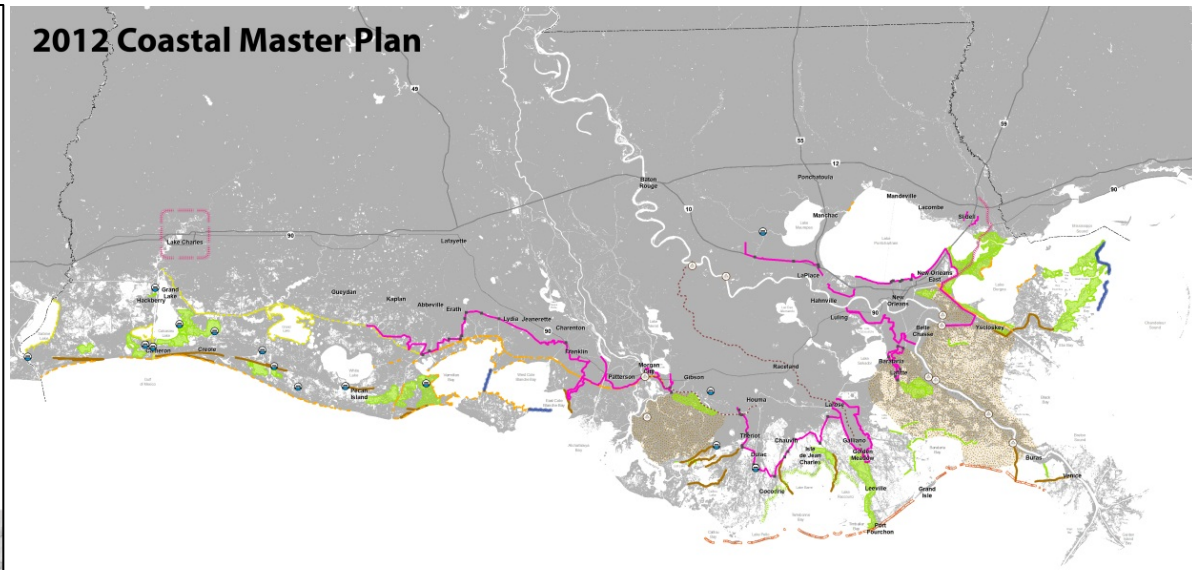
Louisiana's Comprehensive
Master Plan for a Sustainable Coast

committed to **our coast**



Effective May 23, 2012

2012 Coastal Master Plan



Projects Included:



Projects for Further Planning:



Master Plan Objectives



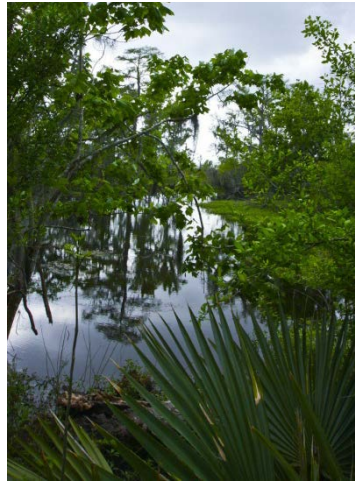
Flood Protection

Reduce economic losses from storm-based flooding



Natural Processes

Promote a sustainable ecosystem by harnessing the processes of the natural system



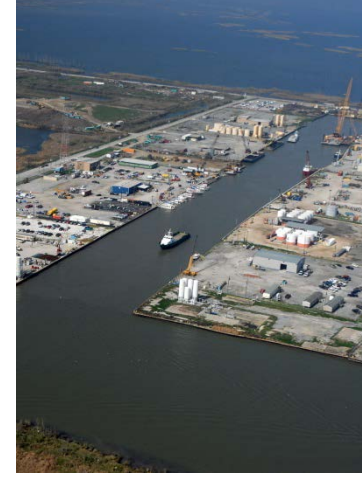
Coastal Habitats

Provide habitats suitable to support an array of commercial and recreational activities coast wide



Cultural Heritage

Sustain Louisiana's unique heritage and culture



Working Coast

Support regionally and nationally important businesses and industries

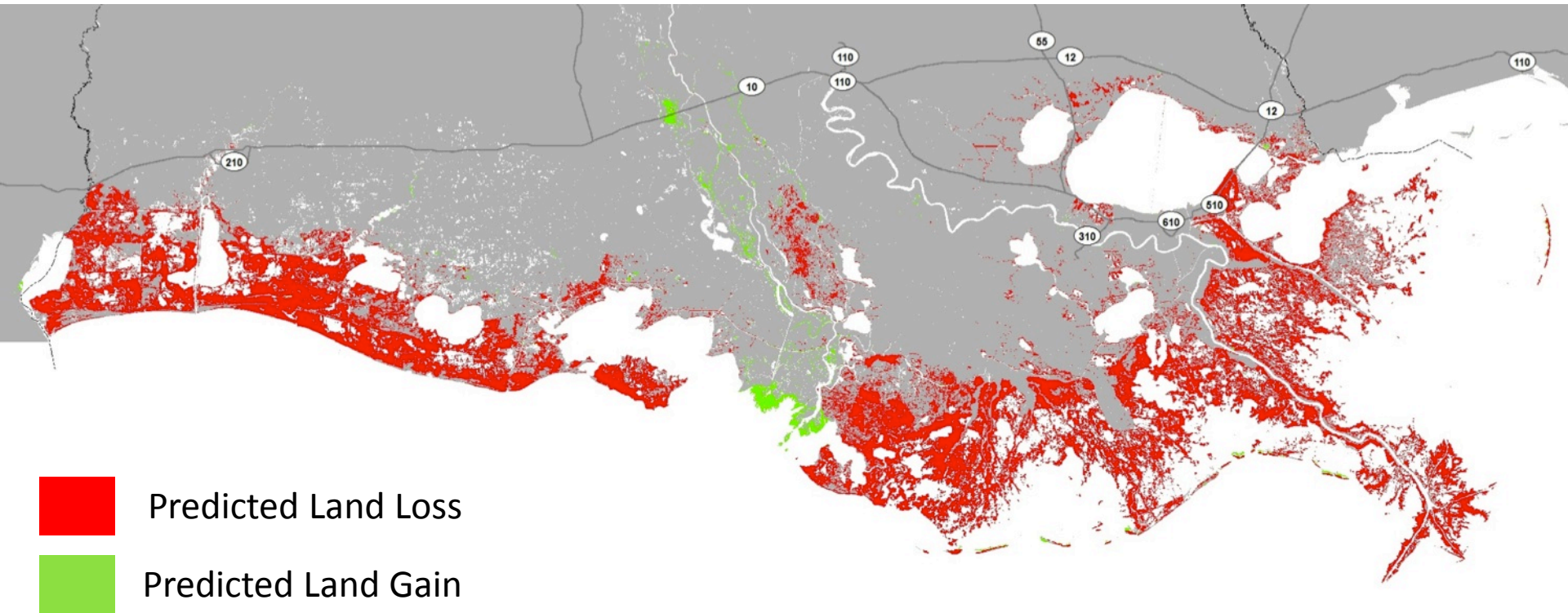
Coastal Restoration- January 2008 through FY 15

	Constructed		Under Construction		Anticipated to be bid for construction in FY14		Anticipated to be bid for construction in FY15		TOTALS	
	#	Total Cost	#	Total Cost	#	Total Cost	#	Total Cost	#	Total Cost
Barrier Island/Headland Restoration	7	\$477,786,741	3	\$177,319,064	1	\$147,063,587	2	\$214,269,971	13	\$1,016,439,363
Marsh Creation	9	\$156,461,322	8	\$227,986,592	2	\$17,538,649	7	\$118,548,958	26	\$520,535,521
Shoreline Protection	13	\$247,622,006	5	\$77,810,707	1	\$26,351,988	1	\$11,305,616	20	\$363,090,317
Hydrologic Restoration	6	\$66,824,678	2	\$5,500,000	1	\$4,500,000	4	\$20,657,459	13	\$97,482,137
Diversions	1	\$20,000,000	0	\$0	0	\$0	1	\$20,000,000	2	\$40,000,000
Oyster Barrier Reefs	1	\$1,510,433	0	\$0	0	\$0	1	\$26,500,000	2	\$28,010,433
	37	\$970,205,181	18	\$488,616,363	5	\$195,454,224	16	\$411,282,004	76	\$2,065,557,772

Structural Protection and Infrastructure - January 2008 through FY 15

	Constructed		Under Construction		Anticipated to be bid for construction in FY14		Anticipated to be bid for construction in FY15		TOTALS	
	#	Total Cost	#	Total Cost	#	Total Cost	#	Total Cost	#	Total Cost
Greater New Orleans Hurricane Protection System		\$4,984,256,580		\$3,748,755,700		TBD		TBD		\$8,733,012,280
Other Protection Projects	4	\$1,082,944,536	8	\$797,949,744	3	\$460,698,857	6	\$46,500,000	21	\$2,388,093,137
Infrastructure Projects	9	\$58,141,779	1	\$3,194,355	4	\$17,550,218	1	\$4,890,000	15	\$83,776,352
	13	\$6,125,342,895	9	\$4,549,899,799	7	\$478,249,075	7	\$51,390,000	36	\$11,204,881,769

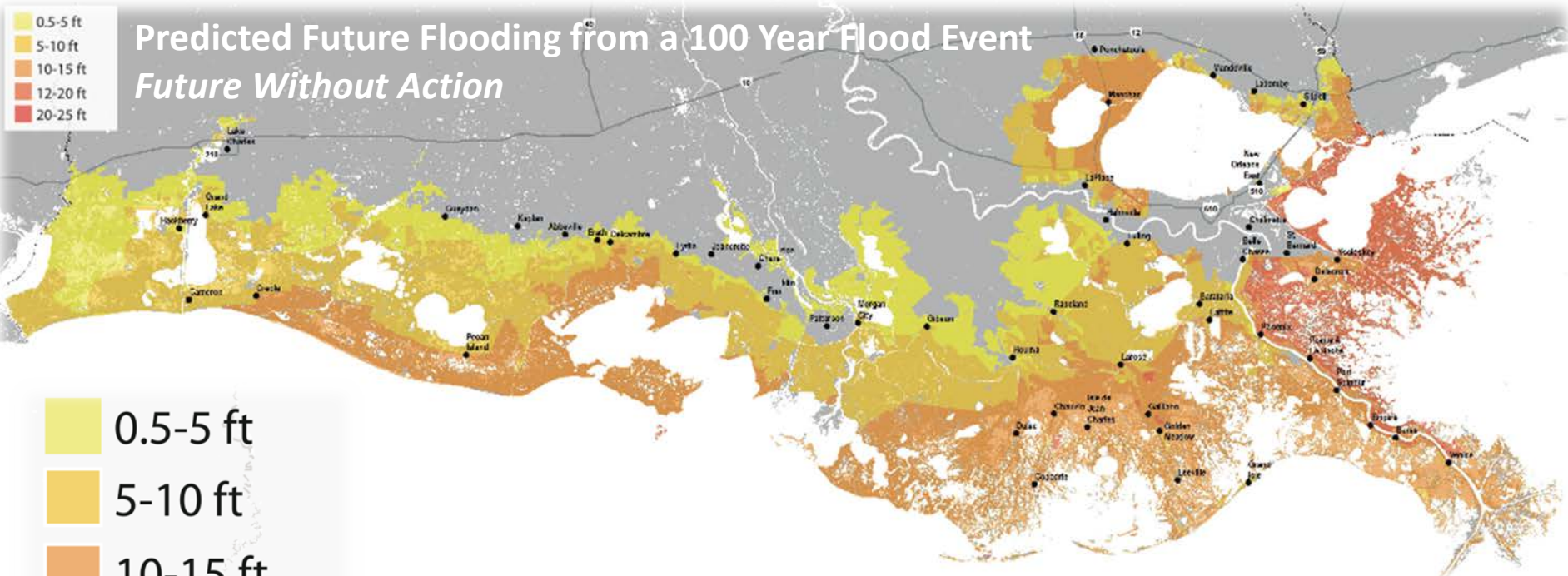
HOW BAD IS IT- Future Without Action



More Extreme- Potential to lose an additional 1,765 square miles (455,000 ha.) of land over the next 50 years.

Utilized 0.45 m of sea level rise over 50 years, Subsidence rates 0 to 25 mm per year

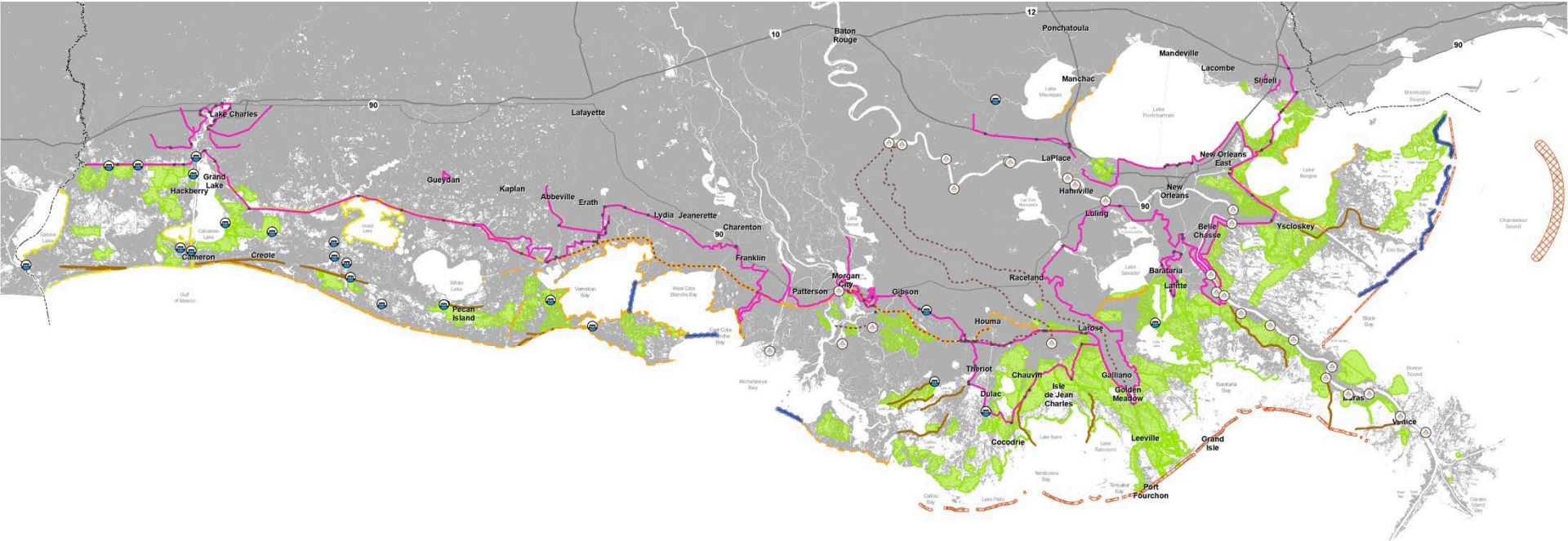
Our Communities and Livelihoods at Risk



Potential for damages to reach
\$23.4 billion annually

Increasing threats to lives, jobs,
communities and the economy

Project Evaluation



Structural Protection	Bank Stabilization	Oyster Barrier Reef	Ridge Restoration	Shoreline Protection	Barrier Island Restoration	Marsh Creation	Sediment Diversion	Hydrologic Restoration	Channel Realignment	Nonstructural Measures

Initial list of 1,500 projects screened with 400 evaluated using the predictive modeling suite.

Factors in Making Decision: Meeting our Objectives

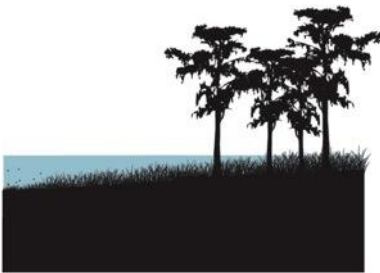


Risk-Reduction Metrics



Expected Annual
Damages

Land Area



Decision Criteria and Ecosystem Metrics



Distribution of flood risk across
socioeconomic groups



Flood protection of historic
properties



Flood protection of strategic assets



O&M costs



Sustainability



Support for navigation



Use of natural processes



Support for cultural heritage



Support for oil & gas



Oyster



Shrimp



Freshwater Availability



Alligator



Waterfowl



Saltwater Fisheries



Freshwater Fisheries



Carbon Sequestration

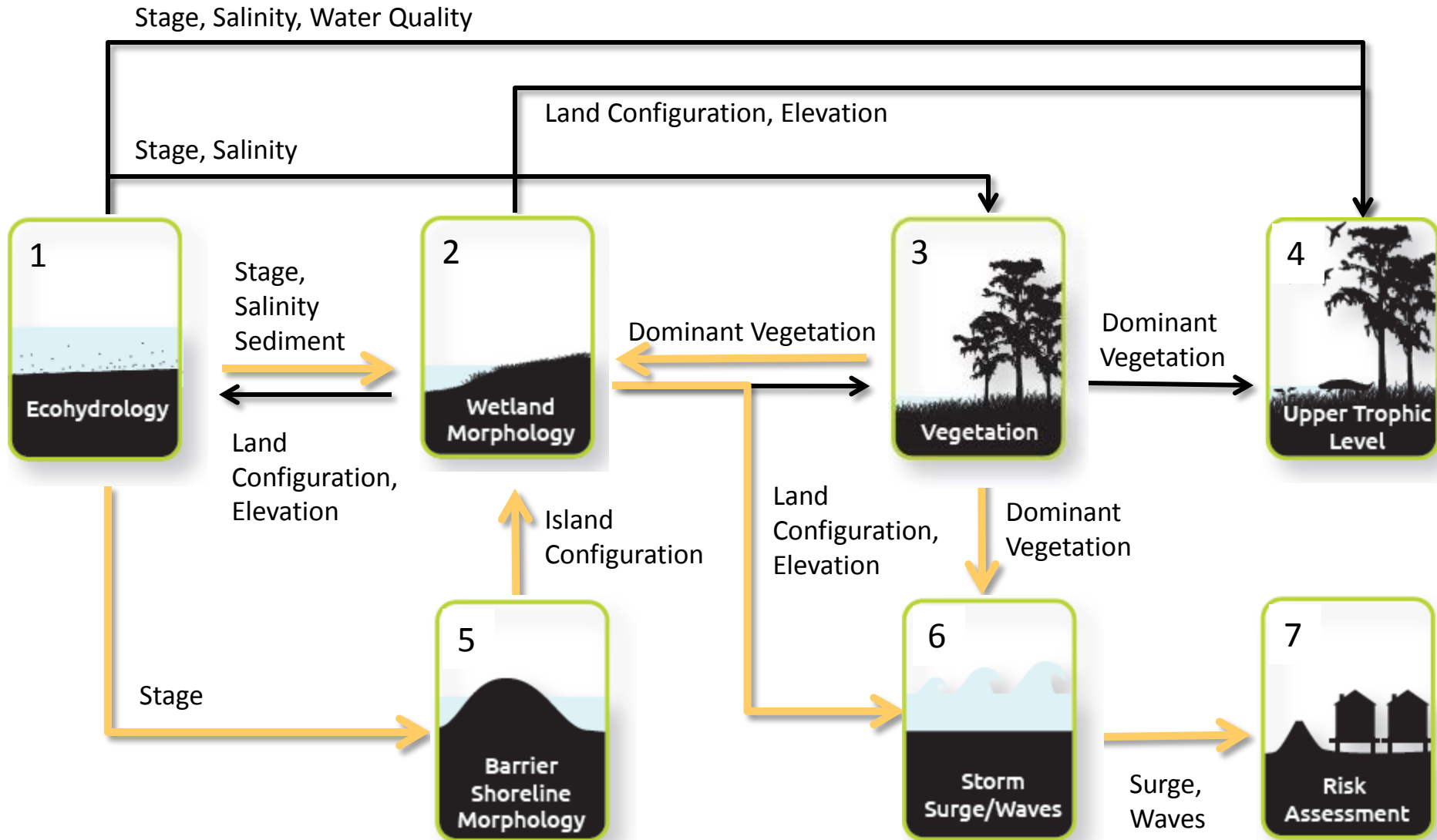


Nitrogen Removal



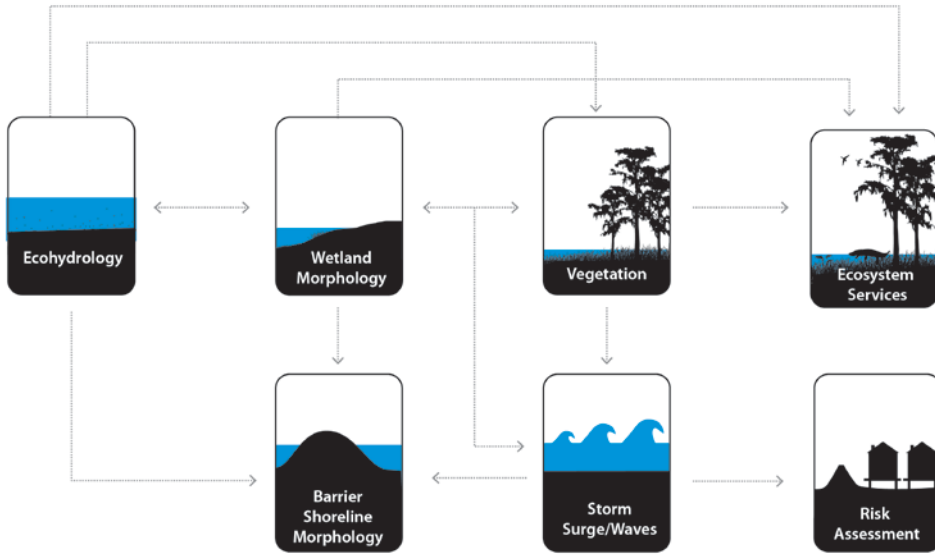
Agriculture/Aquaculture

Modeling in a Systems Context



What Made the Difference?

Science Based & Stakeholder Informed



Advanced Technical Analysis



Conflict Resolution Process

2012 Science and Engineering Board

Ecosystem Science / Coastal Ecology

- William Dennison, PhD, University of Maryland
- Edward Houde, PhD, University of Maryland
- Katherine Ewel, PhD, University of Florida

Engineering

- Robert Dalrymple, PhD, PE, Johns Hopkins University
- Jos Dijkman, MsC, PE, Dijkman Delft

Geosciences

- Charles Groat, PhD, University of Texas at Austin

Social Science and Risk

- Greg Baecher, PhD, PE, University of Maryland
- Philip Berke, PhD, University of North Carolina – Chapel Hill

Climate Change

- Virginia Burkett, PhD, U.S. Geological Survey

Environmental/Natural Resource Economics

- Edward Barbier, PhD, University of Wyoming

2012 Technical Advisory Committees

Predictive Models

- Steve Ashby, PhD, USACE Eng. Res. Dev. Center
- John Callaway, PhD, University of San Francisco
- Fred Sklar, PhD, South Florida Water Mgmt. District
- Si Simenstad, MS, University of Washington

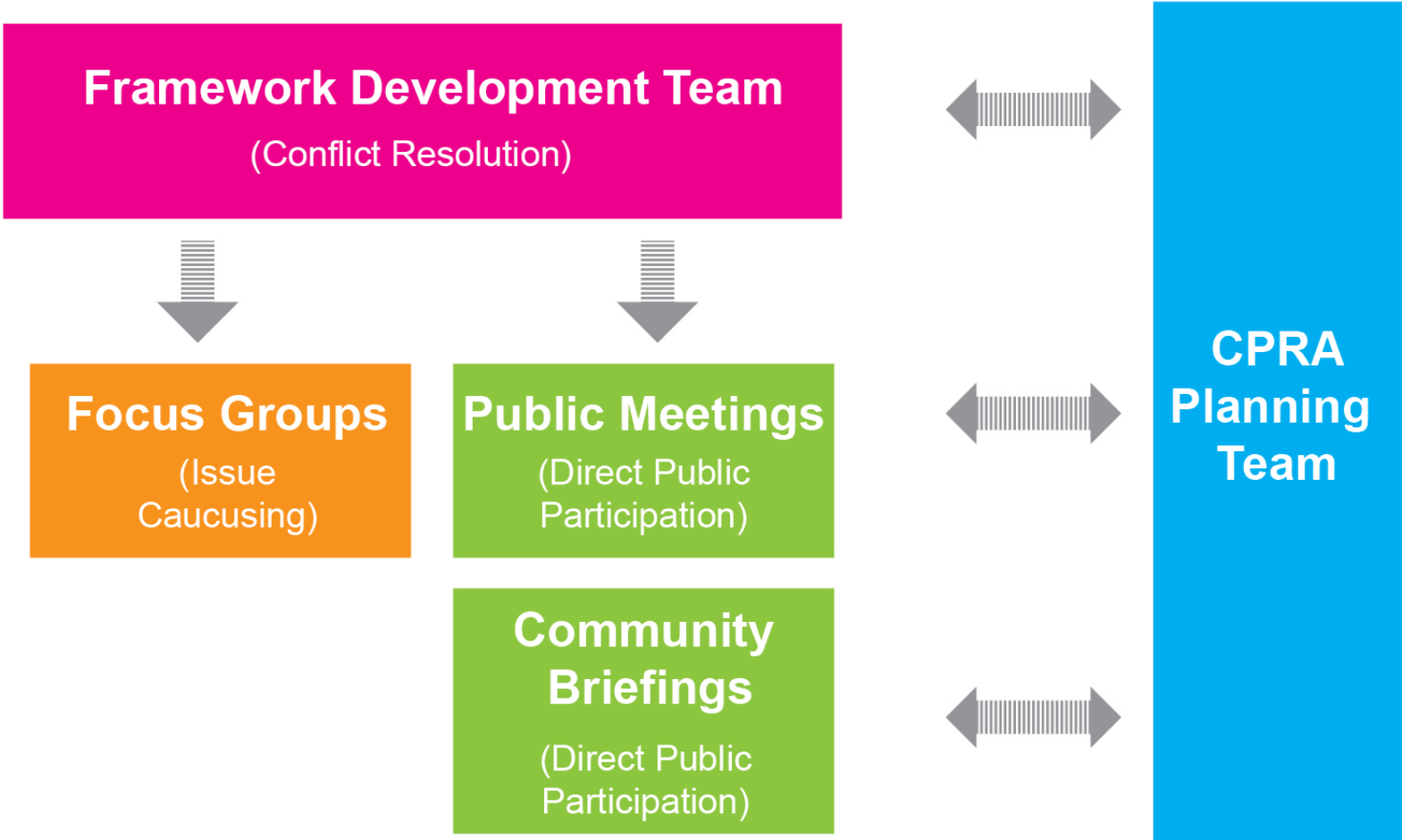
Planning Tool

- John Boland, PhD, PE, John Hopkins
- Ben Hobbs, PhD, John Hopkins
- Len Shabman, PhD, Virginia Tech

Cultural Heritage

- Don Davis, PhD, Louisiana State University
- Maida Owens, LA Dept. of Culture, Recreation, and Tourism
- Carl Brasseaux, PhD, University of Louisiana Lafayette

Building Platforms for Public Engagement



2012 Framework Development Team



Over 30 Federal, State, NGO, Academic, Community, and Industry Organizations

Conflict Resolution Theory

- Dispute resolution as method of public participation
- Improves environmental decision making:
 - Incorporating wider range of values
 - Increasing substantive quality of decisions
 - Resolving conflict among competing interests
 - Building trust in institutions
 - Informing and educating the public
- Emphasizes: face-to-face deliberation, problem solving, consensus building among smaller group of people intended to represent the public

Framework Development Team



Bringing People Together

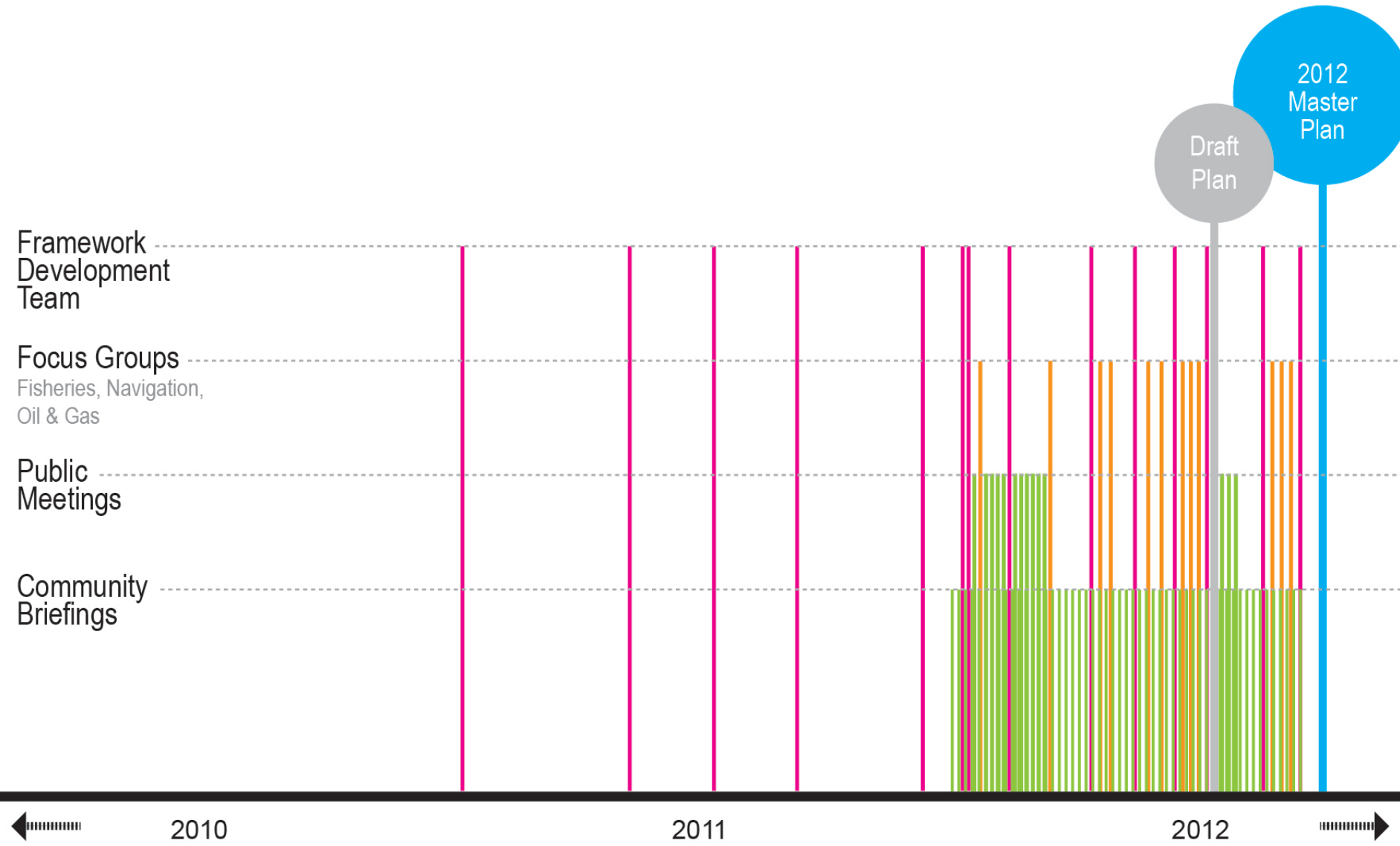
Framework Development Team



- Broad representation of stakeholder groups, geographies, and agency perspectives.
- Federal/state partners, industry leaders, academics, NGOs, and other economic and cultural cornerstones.
- Influential people, diverse backgrounds, entrenched views.



Building Platforms for Public Engagement



Team Charge

Framework Development Team

- Provide expertise and knowledge on scientific and policy issues.
- Provide advice on the outreach and engagement to stakeholder groups.
- Strive for a high degree of cross-interest involvement in crafting advice on Master Plan elements.
- Willingness to consider compromises in recommendations.



Guiding Principles

Framework Development Team

“We are all in this together.”

Legitimacy, accountability, and representativeness.

Outcome-focused deliberations.



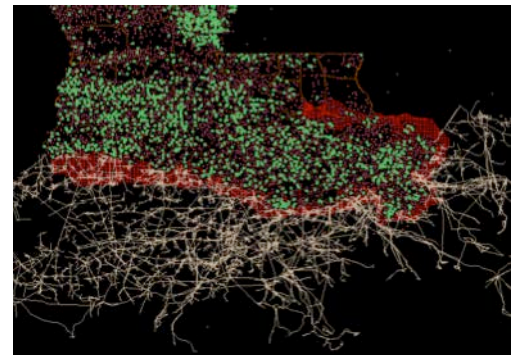
Ground Rules

Framework Development Team

1. Membership and communication with constituencies.
2. Collaboration:
 - Active, focused participation
 - Respectful interactions
 - Integration and creative thinking
 - Adherence to ground rules
 - Negotiating in good faith
3. Information sharing.
4. Meeting participation.
5. Multi-interest work teams and interest group caucusing.
6. Decision making.

Focus Groups

- Key industries are impacted by land loss and large scale protection and restoration efforts
- Created three focus groups:
 - Navigation
 - Fisheries
 - Oil and Gas
- Expanding membership to:
 - Landowners
 - Community groups



Focus Groups

Expanding Collaboration



Fisheries



Navigation



Oil & Gas

Oyster Task Force – Shrimp Processor Task Force – Shrimp Harvest Task Force – Blue Crab Task Force – Recreational Saltwater Fishing Task Force – Menhaden Industry – NMFS – LA Charter Boat Association – United Commercial Fisherman’s Association – Wild Caught Crawfish Industry – LA Department of Wildlife and Fisheries

Associated Branch Pilots – Canal Barge – Gulf Intracoastal Canal – Louisiana Maritime Users – Ports Assn. of Louisiana – Greater Lafourche Port Commission Port of New Orleans – Port of Lake Charles – Port of Morgan City – Port of Iberia – Port of West St. Mary – Port of West Calcasieu – Crescent Port Pilots – US ACE: MVN – LA Assn. of Waterways and Shipyards – Greater New Orleans Barge Fleeting Assn. – DOTD Port Program

Chevron – Conoco Phillips – El Paso – Louisiana Oil and Gas Association – LA Mid-Continent Oil and Gas Assn. – Shell – Spectra – Strategic Petroleum Reserves

Group Charge

Focus Groups

- Provide insight into potential concerns of particular industry
- Provide insight into the socio-economic components and suggestions for addressing these concerns
- Not achieve consensus, but discuss options and solicit
- Report back to Framework Development Team

Impact on Master Plan

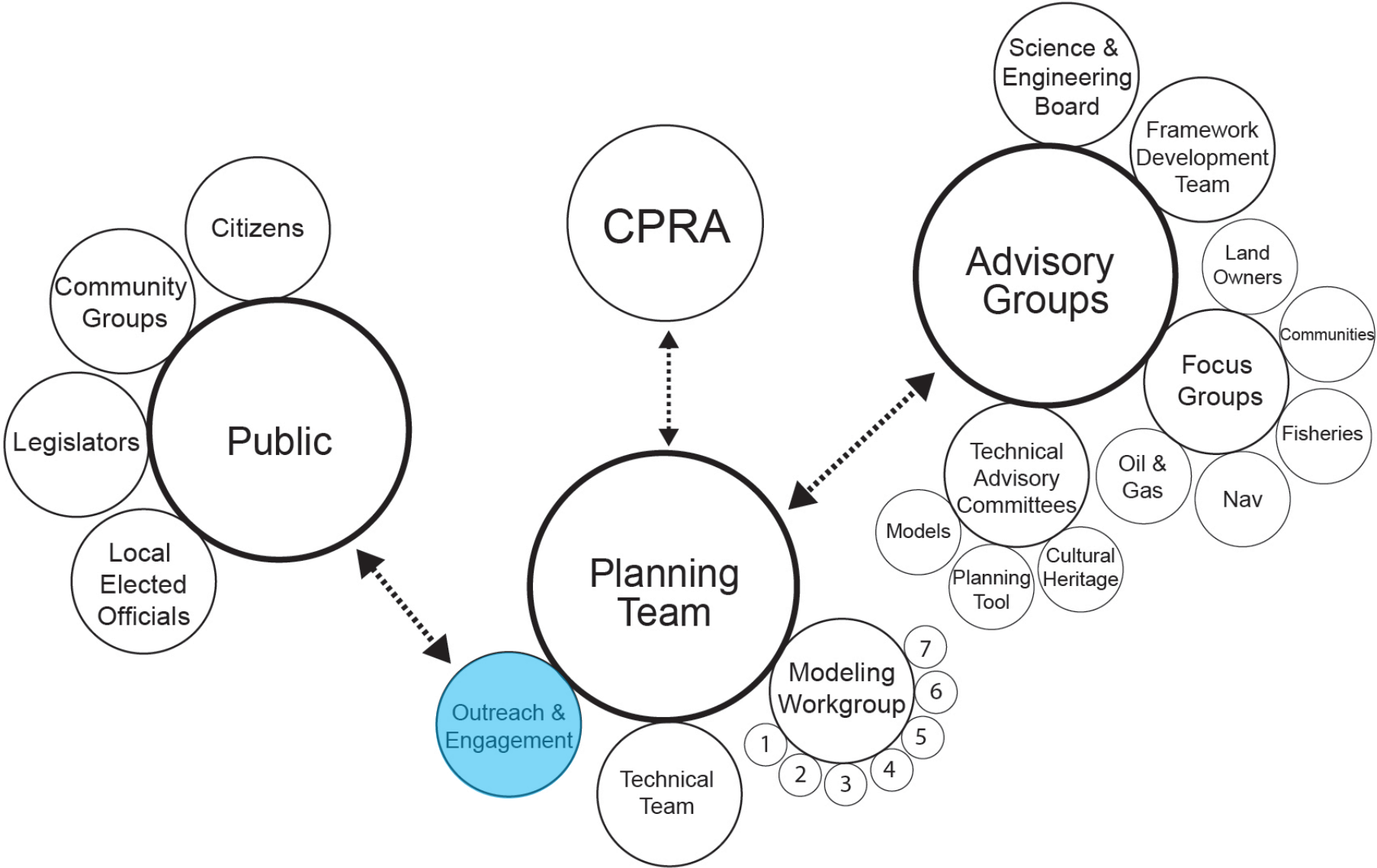
Framework Development Team & Focus Groups

- Determined plan's objectives and principles, which drove technical analysis
- Kept planning team accountable
- Helped to implement plan
 - Got regulators, advocacy groups on board in advance through process
- Built trust, lowered intensity of conflicts
 - Not all bought into plan, but very familiar with process and details

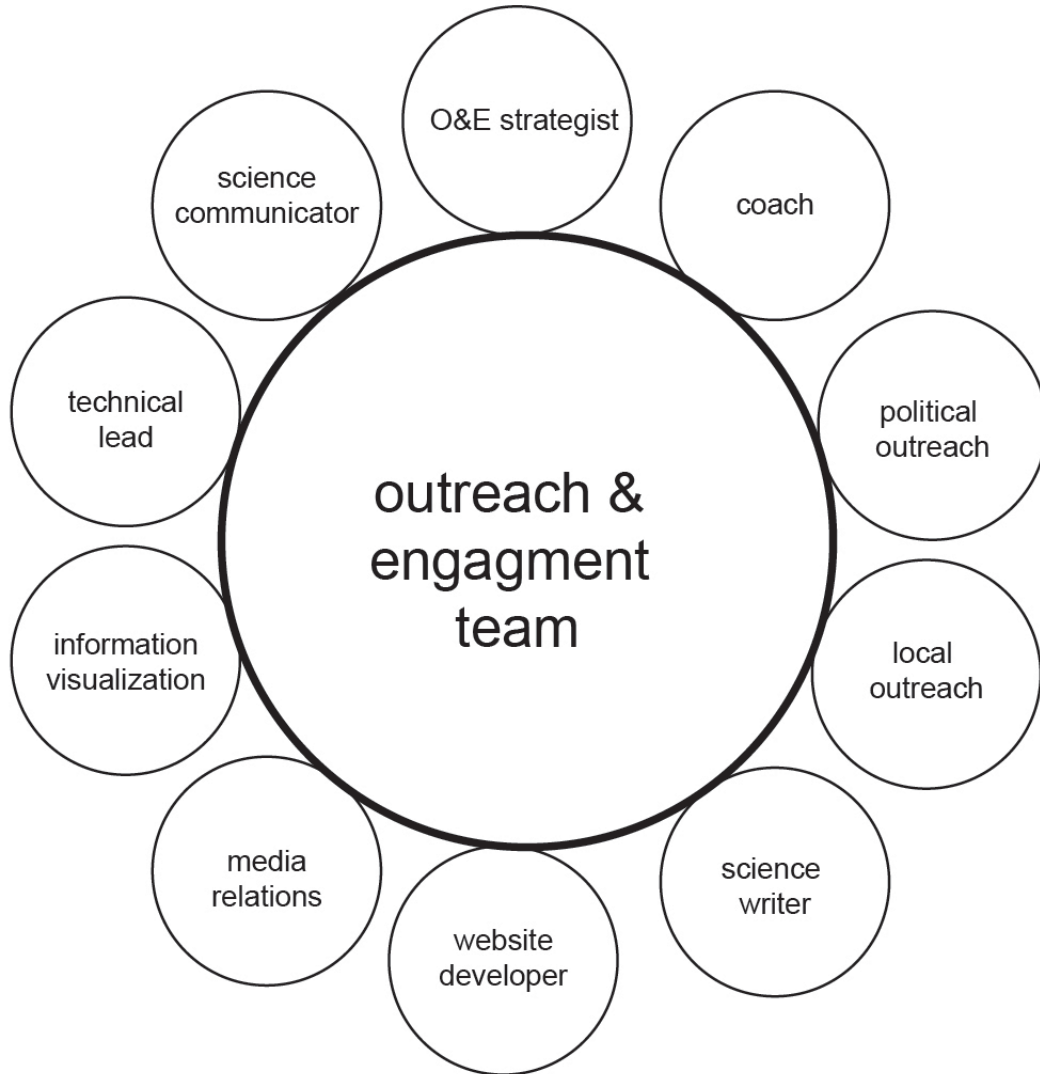
Minds are like parachutes.
They only function when they are open.
- James Dewar

public participation

Planning Organization



Interdisciplinary Planning Team



Skill sets in:

- Strategic planning
- Conflict resolution
- Science communication
- Graphic visualization

Local knowledge & experience

Principles

Outreach & Engagement

Scope: Citizens should be able to learn about and comment on the tools and processes that create the plan and not just the finished plan itself.

Timing: Citizen's comments and ideas should be received, reviewed and incorporated while the plan is being developed, not after the fact.

Fair hearing: Not every citizen preference can be included in the plan. Each idea will receive a fair hearing and questions will be answered promptly and honestly.

Access: Must be a variety of ways for citizens to learn about and participate in the master planning process, including small group gathering, web offerings, direct communication with local and state government, and public meetings.

Outreach & Engagement Strategy

“Listening Tour”

“Thinking Through Priorities”

“Leading the Way”

→ **Baseline Assessment**

- + Public Survey
- + Political Outreach
- + Proactive Citizen & Public Outreach

→ **Active Community Engagement**

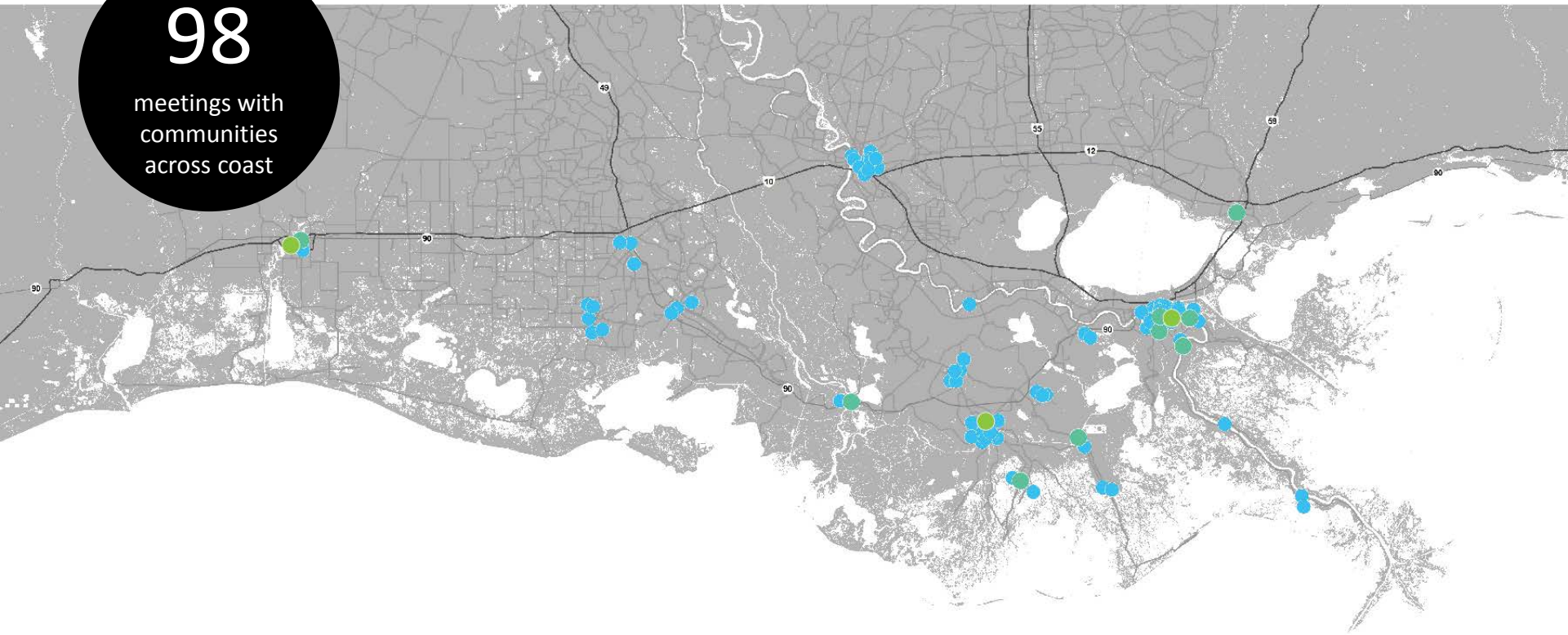
- + Proactive Citizen & Public Engagement including Community Groups & Organizations

→ **Strategic Engagement & Public Comment**

- + Legislative Strategy
- + Local Elected Officials Strategy
- + Media Strategy
- + Public Comment Period

Community Groups & Organizations

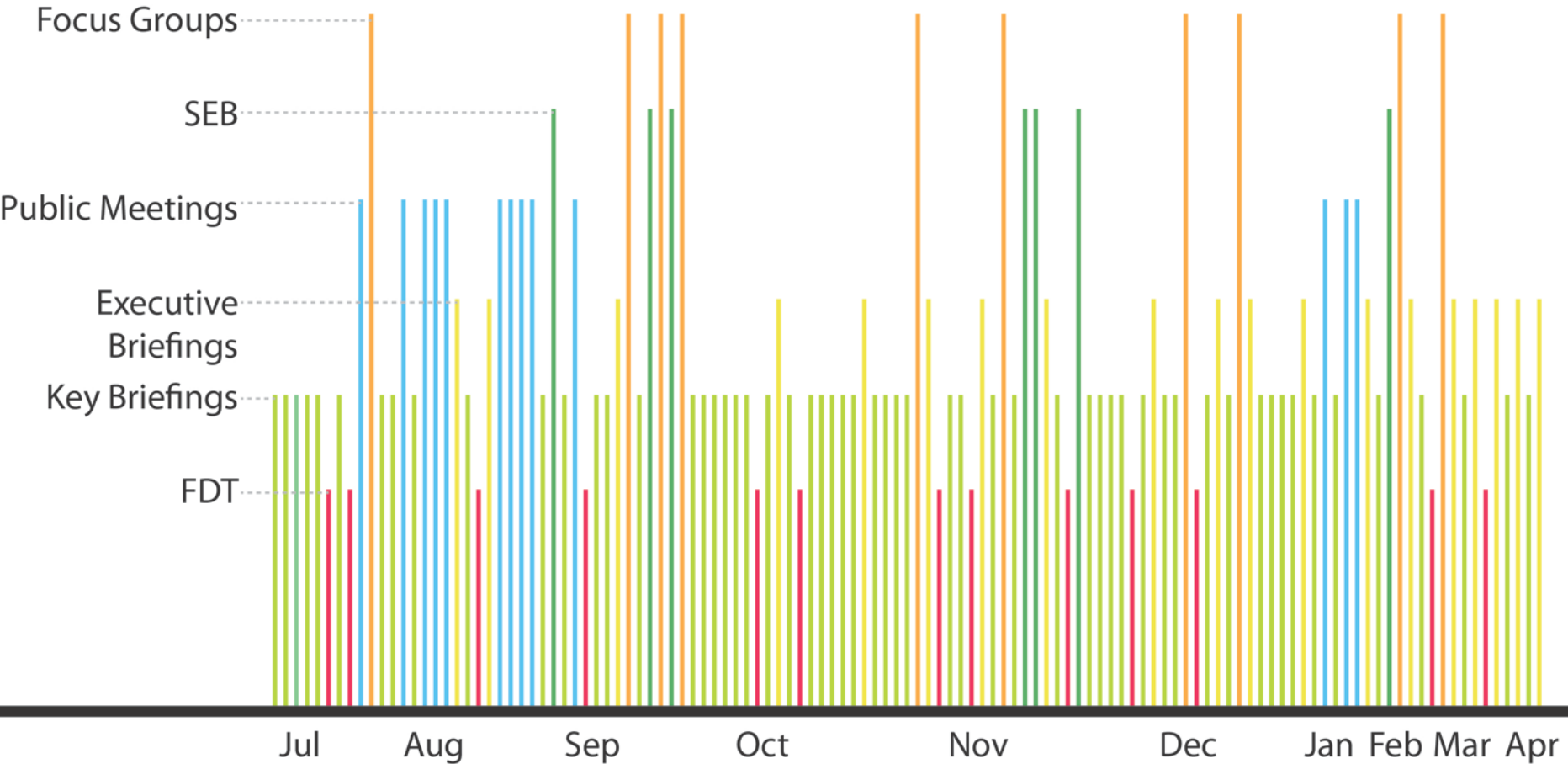
98
meetings with
communities
across coast



- Listening Tour (regional meetings)
- Thinking Through Priorities (local meetings)
- Draft Plan Comment (open house + public hearing)

120+ Face-to-Face Meetings

120+ meetings with citizens, focus groups, elected officials, stakeholders, & review teams



Community Groups & Organizations

American Council of Engineering Companies (ACEC) New Orleans Chapter
American Society of Civil Engineers
Association of Levee Boards of Louisiana Annual Conference
Association of Levee Boards of Louisiana Executive Committee
Barataria-Terrebonne National Estuary Program (BTNEP) Management Conference
Bayou Grace Community Center
Bayou Grace Community Meeting
Bayou Industrial Group
Bayou Interfaith Shared Community Organizing (BISCO) Executive Staff
Bayou Lafourche Summit
Big River Coalition, Navigation Meeting
Broussard Chamber of Commerce
Building Resilience Workshop
Catholic Social Services
Chenier Plain Committee
Coast Builders Coalition
Coastal Community Planning Forum
Coastal Conservation Association of Louisiana Board of Directors
Coastal Restoration/Protection Forum
Conoco Phillips
Delta Discussion Group
Department of Natural Resources (DNR) Quarterly Program Managers Meeting
Global Green USA, New Orleans
Holy Cross College Coastal Restoration Forum
Houma-Terrebonne Chamber of Commerce
Hypoxia Work Group
Iberia Levee District
Lafourche and Terrebonne Restoration Summit
Lafourche Basin Levee District
Lafourche Chamber of Commerce
Lafourche Parish Coastal Zone Advisory Committee
Lafourche Parish Council
Leadership Southwest Louisiana
Louisiana Association of Conservation Districts Coastal Resources Committee
Louisiana Charter Boat Association
Louisiana Engineering Society - Bayou Chapter
Louisiana Landowners Association
Louisiana Oyster Dealers and Growers Conference
Louisiana Shrimp Task Force
Louisiana Wildlife Federation, Cajun Fishing Adventures (Charter Boat Captains and Recreational Fisherman)
Louisiana Wildlife Federation, CCA Louisiana (Charter Boat Captains and Recreational Fisherman)
LSU Sea Grant
New Iberia Optimist Club
New Orleans Environmental Organizations
Nongovernmental Organization Briefing
Oyster Advisory Committee
Oyster Task Force
Parish Officials Update Briefing
Plaquemines Parish Citizens
Police Jury Conference, Coastal Caucus
Port of Morgan City
Ports Association of Louisiana
President Claudet Town Hall Meeting
Regional Planning Commission of Greater New Orleans
Rotary Club of Abbeville
SASSAFRAS Louisiana
Sea Grant Agents
South Central Industrial Association Legislative Luncheon
South Lafourche Levee District
Southeast Louisiana Flood Protection Authority East Board
Southeast Louisiana Flood Protection Authority West Board
St. Bernard Parish Coastal Advisory Committee
St. Bernard Parish Coastal Zone Management Committee
St. Bernard Parish Economic Development Foundation, Coastal Restoration Task Force
Terrebonne CZM
The America's WETLAND Foundation Blue Ribbon Resilient Community Forum
The Coastal Wetlands Planning, Protection and Restoration Act Task Force Meeting
Thibodaux Rotary
United Houma Nation
United Houma Nation Tribal Council
United States Army Corps of Engineers Headquarters
United States Army Corps of Engineers New Orleans District
Vermilion Farm Bureau
Vermilion Parish Coastal Protection Advisory Committee
Vermillion Rice Growers Association

Listening Tour



Public Meetings + Open House

750

people
attended

5

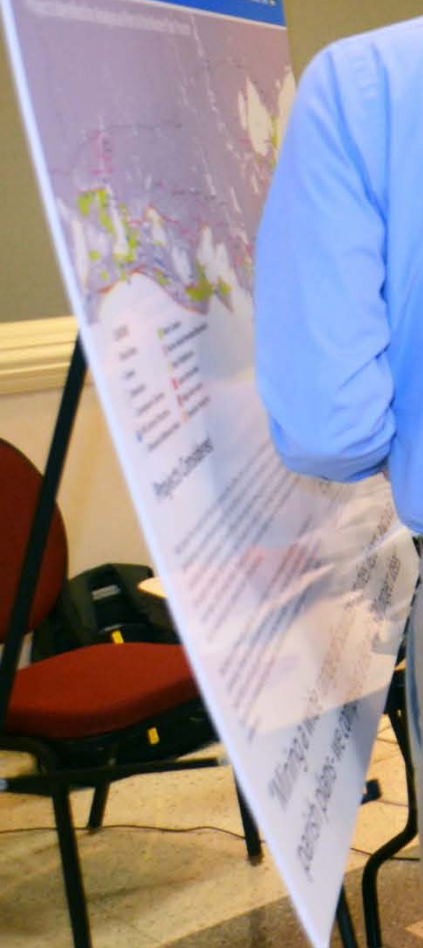
hour open
house

2,200

comments
on draft plan



PROJECTS EVALUATED

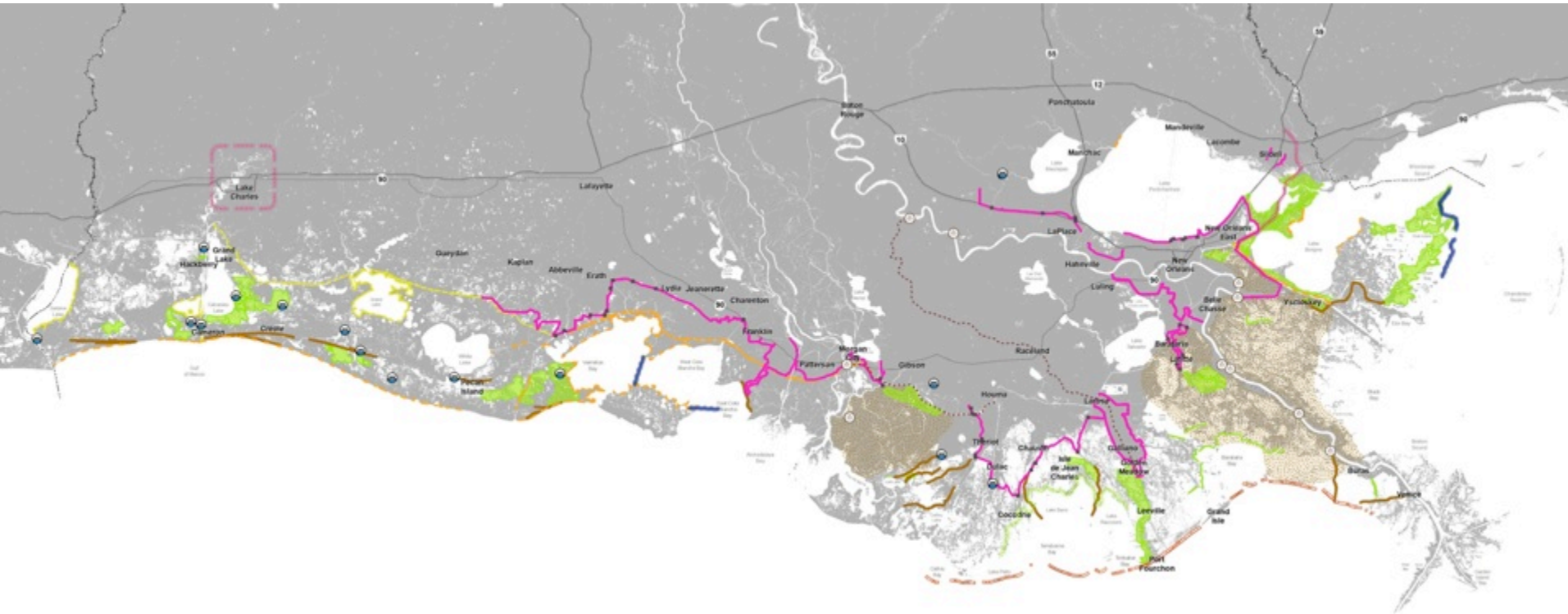


Alternatives to Public Meetings

Expanding Collaboration



Louisiana's 2012 Coastal Master Plan



A wide-angle photograph of a coastal landscape. The foreground is dominated by lush green marsh grasses. In the middle ground, there is a body of water with a small boat and some industrial structures on the right. The background shows a clear blue sky with scattered white clouds.

86%

of Louisiana voters support adoption of
2012 Coastal Master Plan



100%

Unanimous passage by
Louisiana state legislature

Need for Ongoing Relationship-Building

The St. Bernard Voice

Your Voice. The St. Bernard Voice.

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Diversion shot down by community

Jan 26th, 2011 | By Michelle Provencier | Category: Top Story



Residents who say a freshwater diversion would cut the parish in half almost universally combated the man-made waterway Army Corps of Engineers says will restore St. Bernard Parish's eroding coastline.

It was standing room only during a public meeting on the diversion, held in the cafeteria of the C.F. Rowley Alternative School on Jan. 20, but that didn't stop dozens of concerned citizens from speaking out.

"It's like your right arm's broken, so you put a cast on the left," said Kathy Ziegler, one of the many locals opposed to the water diversion. "We don't need to lose any more land in St. Bernard Parish. We can get pipeline in, and pump what (sediment) we need."

Bernard Parish. We can get pipeline in, and pump what (sediment) we need."

The Times-Picayune Greater New Orleans
Set your local edition to Baton Rouge

NEWS BUSINESS SPORTS H.S. SPORTS ENTERTAINMENT LIVING

Santa's LSU Pelicans Louisiana Recruiting Tulane UNO Running Louisiana Outdoors Golf Zephyrs Soccer More

Louisiana's Coastal Master Plan will destroy fishing, harm coast, opponents say at Monday meeting



Some of the worst erosion in the entire world has been in the St. Bernard and upper Plaquemines marshes. Opponents of the state's Coastal Master Plan say it is because of the Cameron Diversion, which is located just north of the Big Mar.

By Todd Masson, NOLA.com | The Times-Picayune
Email the author | Follow on Twitter
on April 30, 2013 at 9:50 AM, updated April 30, 2013 at 10:04 AM

About 300 fishing guides, commercial fishers and marina owners packed the St. Bernard Council Chambers Monday night to show solidarity and discuss a strategy to combat the state's Coastal Master Plan.

LOUISIANA FISHING NEWS
LASS championship winners found school of 'sloth' redfish

video photos

Where to find spackled trout this weekend in Delcreek 9:11 AM
Updated by Todd Masson, NOLA.com | The Times-Picayune

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louisiana seafood database

The St. Bernard Voice

Your Voice. The St. Bernard Voice.

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"Diversions aren't the answer."

May 3rd, 2013 | By Jessica Gonzalez | Category: Top Story



"The guy who designed this plan, if it doesn't work, his life will go on... we will suffer forever," said Clint Outley, President of the Louisiana Shrimpers Association. Outley, along with Mike Lane of Rod/Pole.com, Charlie Boat Captain George Ricks, and Dr. Pal Fitzpatrick of Mississippi State University, is leading the charge on the Save Louisiana Coalition an organization against large scale diversions. Photo by Helmut Emlich

Hundreds of concerned fishermen attended the second meeting of the Save Louisiana Coalition Monday night to get informed on what coalition leaders say is the biggest issue facing fisheries today: large-scale freshwater and sediment diversions.



The Save Louisiana Coalition, Inc.
TheSaveLouisianaCoalition.com

Your Name
Gold Member
Member Since
7/30/13
Expires
7/30/14

Dredge, Don't Divert!!

Mud Wrestling: Skeptics question plans for rebuilding coastal Louisiana

Updated: Jun 26, 2013 8:20 PM CDT
Written by: John Snell - email

Breton Sound, La. -- George Ricks yanks a clump of Spartina grass from a dying marsh in St. Bernard Parish.

"It's not rooted at all," said Ricks, a charter boat captain who has fished in the Breton Sound area for 45 years.

The land loss is so rapid his boat's GPS device is confused. "The map says we're sitting on land," Ricks said as he maneuvered through a couple feet of water in a bay that seems to stretch wider by the month.



New land in the Wax Lake delta south of Morgan City (John Snell)

Additional Focus Groups

Expanding Collaboration





89%

**of LA citizens
believe that
Louisiana's coast
is VERY important
to the future of the
state of Louisiana**

85%

**of LA citizens
believe it is smart
to invest dollars in
risk reduction and
coastal restoration**

Achieving Our Vision for Coastal Louisiana's Future



Coastal Protection and
Restoration Authority of Louisiana

