Louisiana’s 2012 Coastal Master Plan

*Hard Choices, Smart Investments for Our Future*

Regional Community Meetings Overview Presentation
Tonight’s Agenda

I. Introductions

II. Coastal Master Plan Overview

III. Vision and Services

IV. Community Exercise Part I

V. Future Without Action

VI. Community Exercise Part II

VII. Where We Are and Next Steps

VIII. Public Discussions
Who Is Involved?

Nearly 100 individuals are working together to restore and protect our coast.

Louisiana’s 2012 Coastal Master Plan

Science & Engineering Board
Framework Development Team
Master Plan Delivery Team
Focus Groups
Technical Advisory Committees

CPRA
PUBLIC PARTICIPATION
LA STATE LEGISLATURE
Ways to Provide Input

Tell us what you think during the comment period
Send us an email at MasterPlan@la.gov
Request a presentation for your citizen group
Check the website regularly at coastalmasterplan.la.gov
Tell your family, friends and co-workers!
Come to CPRA public meetings
Talk to your local leaders or representatives on the Framework Development Team
Have a conversation with one of the team members
Fill out the Community Exercise
Coastal Master Plan Overview
Current and future protection and restoration projects should progress with the same sense of urgency and compressed timelines as was seen in the Greater New Orleans HSDRRS.

Recommend adoption of the same timelines and level of detail used on the "LCA 6" for all feasibility studies.

Acknowledge that Coastal Louisiana is in a catastrophic state of system collapse and that requiring individual projects to be sustainable in perpetuity is an untenable policy.

Our Coastal Crisis

Designates Historic Land Loss

Historic and Projected Land Change (1932 -2050)
Wake Up Calls

4 Major Hurricanes in 5 Years

Nation’s Largest Oil Spill

2011 High Water Event
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Why haven’t we been more effective?

- Too small to address this large-scale problem
- Focused on single projects instead of interconnected ecosystem and communities
- Allowed conflicts to lead to compromises that don’t address the needs
- Did not fully understand the tradeoffs
What’s at Stake?

Predicted Land-Water Change from 2010-2060

- Predicted Land Loss
- Predicted Land Gain
Building on Past and On-Going Efforts

2012 CPRA Master Plan

Ongoing State/Federal Planning Efforts
- Miss. River Delta Management
- MRGO Ecosystem Restoration
- Southwest Coastal Study
- Donaldsonville to the Gulf
- Morganza to the Gulf
- LCA (15 Projects)
- CWPPRA (139 Projects)

Other Initiatives
- Coastal Sustainability Studio
- Dutch Perspective
- LA Speaks
- New Framework
- Envisioning the Future
- Drawing LA's New Map

Previous Planning Efforts
- 2007 CPRA Master Plan
- Coast 2050
- LCA

2012 CPRA Master Plan Update
Building on Other Efforts

July 2010
Actions Since 2007 Master Plan

- 1500% increase in program activity
- Expedited project implementation

Project Construction Starts by Calendar Year
Progress Since 2007 Master Plan

- 48 projects began new construction since the 2007 Master Plan was approved

- Construction has been on-going on the New Orleans Risk Reduction System

Morganza to the Gulf  East Grand Terre  Black Lake Beneficial Use  LPV IHNC Surge Barrier
An Opportunity…

Potential Future Funding

- Natural Resources Damage Assessment credits from Deepwater Horizon Oil Spill
- Clean Water Act penalties from spill
- GOMESA funding
- Credits from restoration activities (carbon sequestration, nutrient uptake, etc.)

Current estimates show potential available funding in the range of $20 to $50 billion over the next 50 years
An Advanced Approach

- Seeks long-term, sustainable solutions
- Uses science-based tools to objectively compare projects and inform our decisions
- Understands interactions between restoration and protection projects
- Will provide a specific group of integrated projects that work together to protect and restore our coast
- Provides clear expectations of the anticipated outcomes
- Provides an implementation strategy
The 2012 Coastal Master Plan will pave the way for action. It will be the first of Louisiana’s coastal plans to outline a series of specific projects for addressing land loss and reducing flood risks.
Vision and Services
Building on the 2007 Master Plan

OBJECTIVES

- Reduce economic losses from storm surge based flooding.
- Promote a sustainable coastal ecosystem by harnessing the processes of the natural system.
- Provide habitats suitable to support an array of commercial and recreational activities coast-wide.
- Sustain, to the extent practicable, the unique cultural heritage of coastal Louisiana.
- Promote a viable working coast to support businesses and industries.
Important Terms

**Definition - Objectives**
One of the five defining statements that express the overall purpose of the 2012 Coastal Master Plan

**Definition - Vision**
An articulation of a desirable future state for the coast that meets the objectives and is technically possible.

**WHAT DO WE WANT TO ACHIEVE?**

**WHAT DO WE WANT THE COAST TO PROVIDE IN THE FUTURE?**
Master Plan Outcomes

**Previous Outcomes**
- Acres of wetlands created and/or benefitted
- Amount of water/sediment discharge
- Miles of shoreline protected
- Miles of levee constructed
- Number of floodgates constructed
- Number of homes elevated

**New Outcomes**
- Availability of natural resources (oysters, alligators, fisheries, etc.)
- Economic/production potential (agriculture, tourism, industry, etc.)
- Level of risk reduction from storm surge flooding and waves
- Ability to conserve cultural heritage

**WHAT DO WE WANT THE COAST TO PROVIDE?**
Importance of A Vision

- Past plans guided by broad goals and project-specific objectives
- Provides a common view about what we want to achieve
- A path to focus state investments
- Ability to understand and confront trade-offs

We want the vision to be **AMBITIOUS** and **ACHIEVABLE**
Developing a Vision

is like Building A House
The Vision consists of:

1. Ecosystem Services
2. Levels of Flood Risk Reduction
Services are...

the reasons to restore and protect our coast
Protection Services are...

The benefits of the coast to provide a level of risk reduction from flooding due to storm surge and waves.
Protection Services are provided by...

- Current landscape
- Structural projects (e.g., levees)
- Nonstructural projects (e.g., elevating structures)
- Ecosystem restoration projects
- Any combination of above
Draft Vision for Protection Services

- For Louisiana’s 2012 Coastal Master Plan, we are focusing on 3 risk reduction levels:
  - 50-Year Risk Reduction Level
  - 100-Year Risk Reduction Level
  - Greater than 100-Year Risk Reduction Level

- The Vision aims to provide a risk reduction level for each coastal community.

The Vision does not guarantee that the level of risk reduction will be achievable.
100-Year Risk Reduction Means:
Statistically means a 1% chance of flooding from an event in any given year.

A homeowner has a 26% chance of experiencing a storm surge/flood event during a 30 year mortgage.
Draft Vision for Protection Services

50-Year Risk Reduction Level (Rural Parish Areas)
- <1,000 people per square mile
- < 5,000 total population

100-Year Risk Reduction Level (Urbanized Areas)
- >1,000 people per square mile
- total population between 5,000 and 75,000

Greater than 100-Year Risk Reduction Level (Metropolitan Areas)
- >1,000 people per square mile
- > 75,000 total population
What’s to Come...

- Our tools are currently analyzing the Future Without Action risk reduction levels.

- It’s important to know what levels of risk reduction are currently provided by the landscape and how that will change over the next 50 years.

- Once we have this information, we will be preparing maps to show the predicted future level of protection services.

When available, maps will be posted at coastalmasterplan.la.gov
Ecosystem Services are...

The natural benefits the coast provides to communities and the economy.
Ecosystem Services

- Agriculture/Aquaculture
- Alligators
- Freshwater Availability
- Freshwater Recreational Fisheries
- Nature Based Tourism
- Oysters
- Coastal Wildlife
- Saltwater Fisheries
- Shrimp
- Storm Surge/Wave Reduction
- Waterfowl Hunting
- Wild Crawfish
Ecosystem Services - 12 Regions

Evaluated over 12 Regions and Coastwide
What’s to Come...

- Our tools are currently analyzing the service level under Future Without Action.

- It’s important to know what levels of ecosystem services are currently provided by the coast and how that will change over the next 50 years.

- Once we have this information, we will be preparing maps to show the predicted future level of the ecosystem services.

When available, maps will be posted at coastalmasterplan.la.gov
Community Exercise Part I
Building on the 2007 Master Plan

**OBJECTIVES**

- Reduce economic losses from storm surge based flooding.
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- Sustain, to the extent practicable, the unique cultural heritage of coastal Louisiana.
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Ecosystem Services –
Systems Based Approach
Future Without Action
Current and future protection and restoration projects should progress with the same sense of urgency and compressed timelines as was seen in the Greater New Orleans HSDRRS.

Recommend adoption of the same timelines and level of detail used on the "LCA 6" for all feasibility studies.

Acknowledge that Coastal Louisiana is in a catastrophic state of system collapse and that requiring individual projects to be sustainable in perpetuity is an untenable policy.

Estimate of Historic Service Changes

Designates Historic Land Loss

Historic and Projected Land Change (1932 -2050)
Coastwide Ecosystem Services

Icons denote a service or group of services that share a common habitat.

The color of the icon indicates if the level in increasing, decreasing, or stays the same as existing conditions.

What will these maps look like?

<table>
<thead>
<tr>
<th>Levels of Ecosystem Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
</tr>
<tr>
<td>Existing</td>
</tr>
<tr>
<td>Increasing</td>
</tr>
</tbody>
</table>
Coastwide Ecosystem Services

This example map shows how ecosystem services may have changed due to historic land loss.
Future Without Action

Predicted Land-Water Change from 2010-2060

- Red: Predicted Land Loss
- Green: Predicted Land Gain

PRELIMINARY DRAFT
Future Without Action

Predicted Land Change from 2010-2060
Potential Funding for the Future

Current estimates show potential available funding in the range of $20 to $50 billion over the next 50 years.

- For the plan, we estimate an average of $400 million to $1 billion every year for the next 50 years.
- This funding level is not guaranteed.
- Funding will be spaced out over 50 year period, so projects will not all be built at once.
- Total implementation costs of all projects under analysis is approximately $250 billion.
Community Exercise
Part II
Tell your friends, family and co-workers to tell us what’s most important to them.

www.coastalmasterplan.la.gov
Where We Are and Next Steps
Select projects based on individual project effects

Difficult to compare different types of projects and project interactions

Predicts how projects interact: we can identify projects that benefit or conflict with each other

Allows comparison of different types of projects

Provides a realistic understanding of what is achievable and sustainable

Depicts the best investments for the State

Integrated System
Master Plan Process

1. Review and build on past planning projects. What do we need to carry forward?
2. Organize planning approach using systems-based analysis. What does the big picture tell us?
3. Understand future coastal conditions. What is at stake?
4. Set goals for protection and ecosystem services. What do we want the coast to provide?
5. Evaluate projects. Which projects achieve results?
6. Analyze options? How should we combine projects to deliver large scale benefits?
7. Develop recommendations for 2012 Coastal Master Plan. What combination of projects is best?
Projects for Analysis

Gathered Projects from Past Plans and Stakeholder Input

Established Screening Criteria

Combined and Standardized Projects into Large-Scale Concepts

List of Final Projects for Analysis under 2012 Coastal Master Plan
- 170 Non-Structural Projects
- 34 Structural Projects
- 210 Restoration Projects

TOTAL 414 Projects
Note: Map does not include Non-Structural Projects or Programs
New Science-Based Tools

Developed for planning effort to provide technical and scientific information to support the decision-making process

- **Predictive Models**
  - Used to predict the future without action and the effects of projects on the coast

- **Planning Tool**
  - Used to compare projects fairly and objectively and inform decision making.
Systems Modeling

[Diagram showing the interactions between different components such as hydrology, vegetation, and storm surge/waves, with a tree silhouetted against the sky.]
Where are we now?

**STEP 4**
Set goals for protection and ecosystem services.

**STEP 5**
Evaluate projects.

**WHAT DO WE WANT THE COAST TO PROVIDE?**

**WHICH PROJECTS ACHIEVE RESULTS?**
Hundreds of Projects...

16 Different Services Affected

Thousands of Possible Combinations

Restoration Project A
Non-Structural Project B
Restoration Project D
Structural Project C
Non-Structural Project F
Structural Project A
Restoration Project J
Structural Project R
Restoration Project K
Non-Structural Project C
Restoration Project L
Restoration Project T
Non-Structural Project H
Structural Project P
Restoration Project G
Restoration Project S
Non-Structural Project J

Outcomes on Protection/Ecosystem Services

Always or usually beneficial

Sometimes beneficial

Rarely or never beneficial
The Decision is Ours

PLANNING TOOL

Analyze various options for achieving ecosystem and protection service targets.

DECISION MAKERS

OTHER INPUTS:
Cost of Projects
Budget
Constraints

PUBLIC PARTICIPATION

LA STATE LEGISLATURE

OTHER INPUTS:
Stakeholders
Stay Informed on our Progress

website
CoastalMasterPlan.la.gov

e-mail
masterplan@la.gov
The Coastal Protection and Restoration Authority (CPRA) has announced a series of regional community meetings to share information about Louisiana’s 2012 Coastal Master Plan. Over the next few months, we will be developing the draft plan. Now is the time to come offer your ideas and learn about the state’s work.

Join us as we make hard choices to secure our coast’s future.
## Important Dates

### 2011

- **July – Sept**: Regional Community Meetings
- **July – Dec**: Continue Outreach Efforts, Website Updates with New Information Available to Speak to Citizen Groups

### 2012

- **Jan**: Draft Coastal Master Plan Released
- **Jan 23**: Public Meeting in New Orleans
- **Jan 24**: Public Meeting in Houma
- **Jan 25**: Public Meeting in Lake Charles
- **Jan – Feb**: Stakeholder Engagement and Feedback
- **March**: Submit Final Plan to LA Legislature

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Once approved by the Louisiana Legislature, implementation of this plan will begin.
For more information:

Email
MasterPlan@la.gov

Visit
coastalmasterplan.la.gov