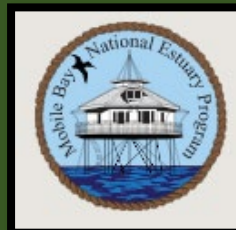


**EPHRIAM**  
**ENVIRONMENTAL LLC.**  
CONSULTING - ECOASSESSMENTS - PERMITTING

Mobile Bay National Estuary Program  
**Western Delta  
Watershed Complex**  
Presented by Ephriam Environmental





# **Introduction to the Mobile Bay National Estuary Program and Our Approach to Watershed Management**







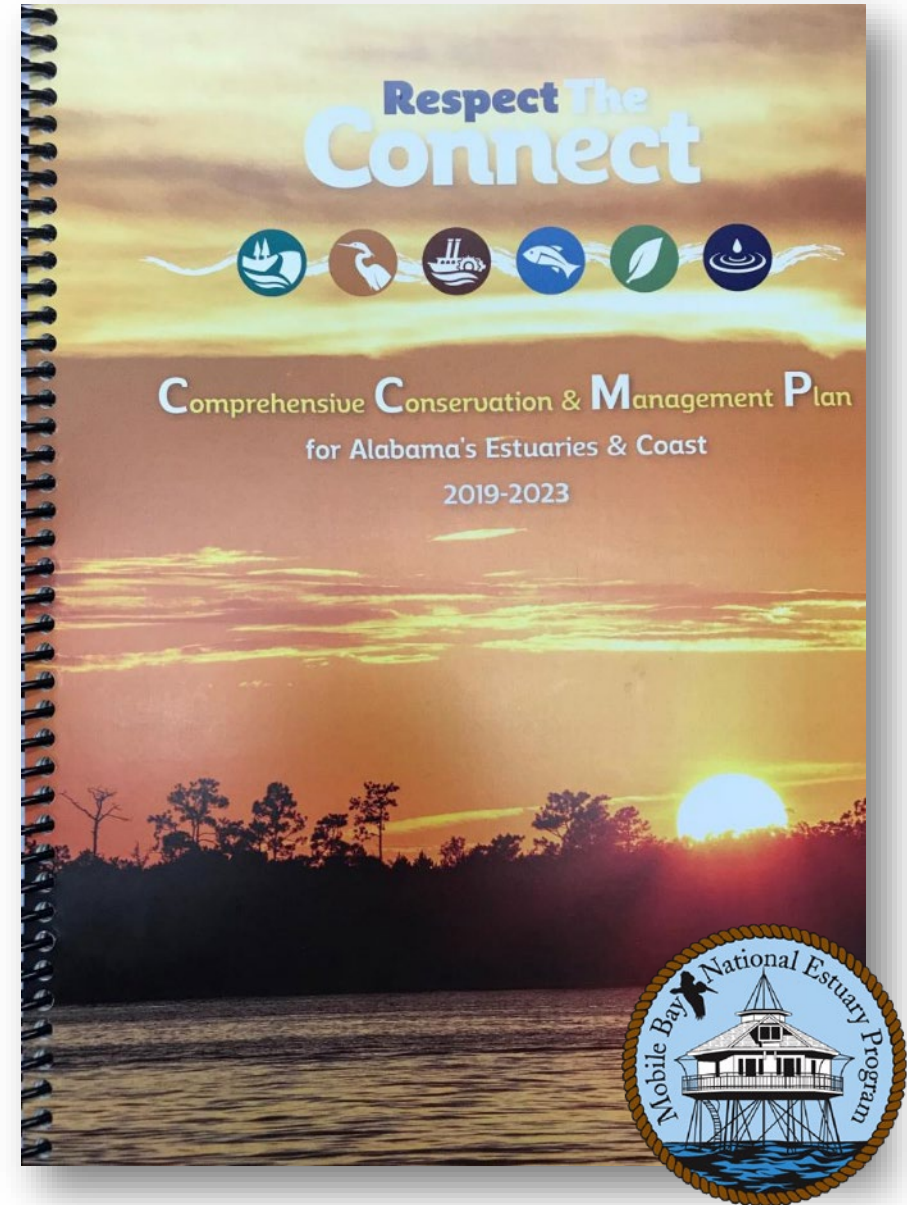
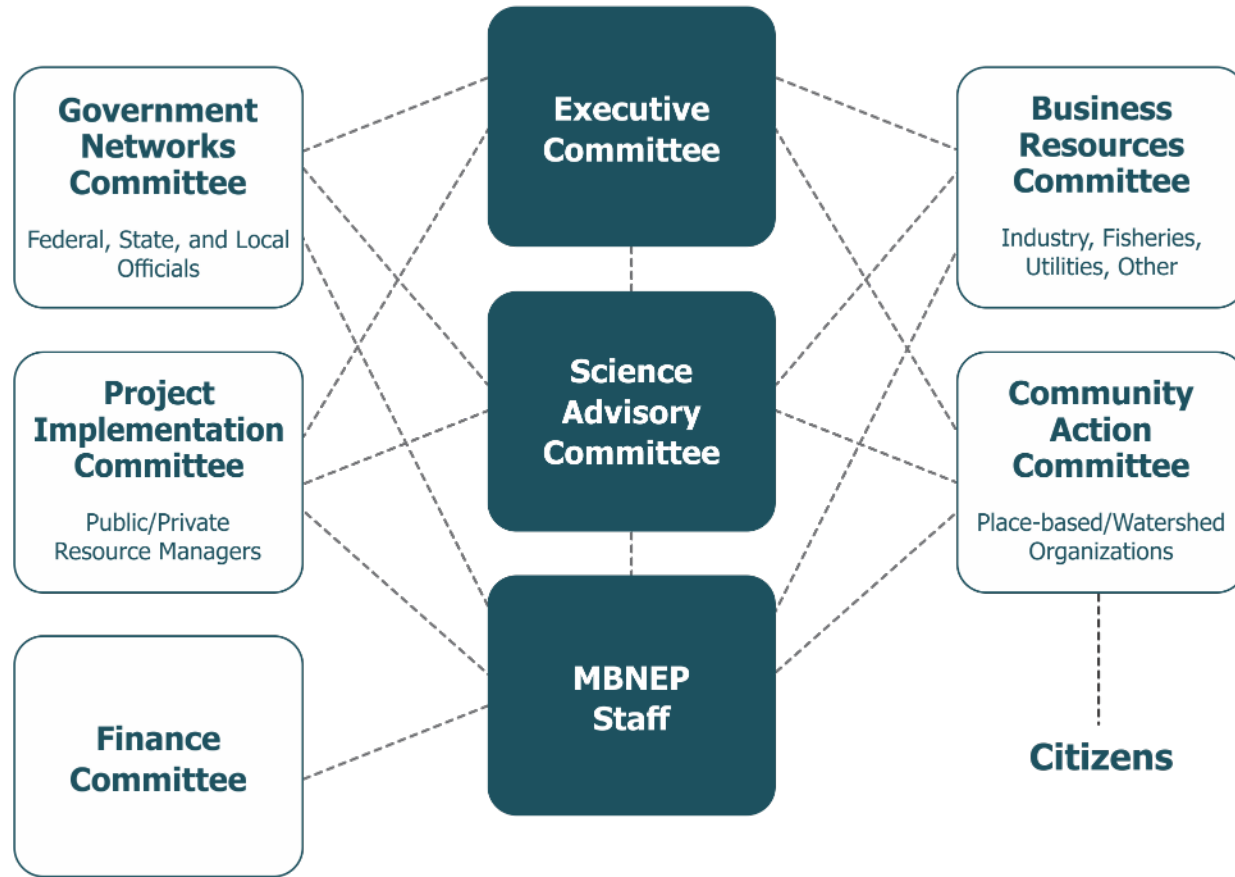
*This meeting is made possible using  
Federal funds  
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Ecosystem Restoration Council  
(RESTORE Council).*

*The statements, findings, conclusions,  
and recommendations are those of the  
presenters  
and do not necessarily reflect the views  
of the RESTORE Council.*





# The Mobile Bay National Estuary Program Management Conference at work...



# Determining where to focus our collective efforts...

Habitat	Ecosystem Services Most Stressed	Top Stress Impacts	Values
Freshwater Wetlands	Nesting for birds and turtles Biodiversity Wildlife, Fisheries	Land Use Change Fragmentation Dredging and Filling	Access Fish Heritage Resilience Water Quality
Streams and Rivers (Riparian Buffers)	Fish Biodiversity Water Quality Sediment	Freshwater discharge Land Use Change Sediments	Access Fish Heritage Resilience Water Quality
Intertidal Marshes and Flats	Biodiversity Fisheries Wildlife Water Quality	Sediment Sea Level Rise Fragmentation	Access Beaches Fish Heritage Resilience Water Quality



# The Connection:

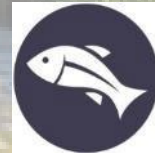
Making it Matter to  
those who live, visit  
and work on the  
Alabama Coast...



**Access to Water and Open Spaces**



**Coastlines  
(Beaches and Other Shorelines)**



**Fish**



**Heritage and Culture**



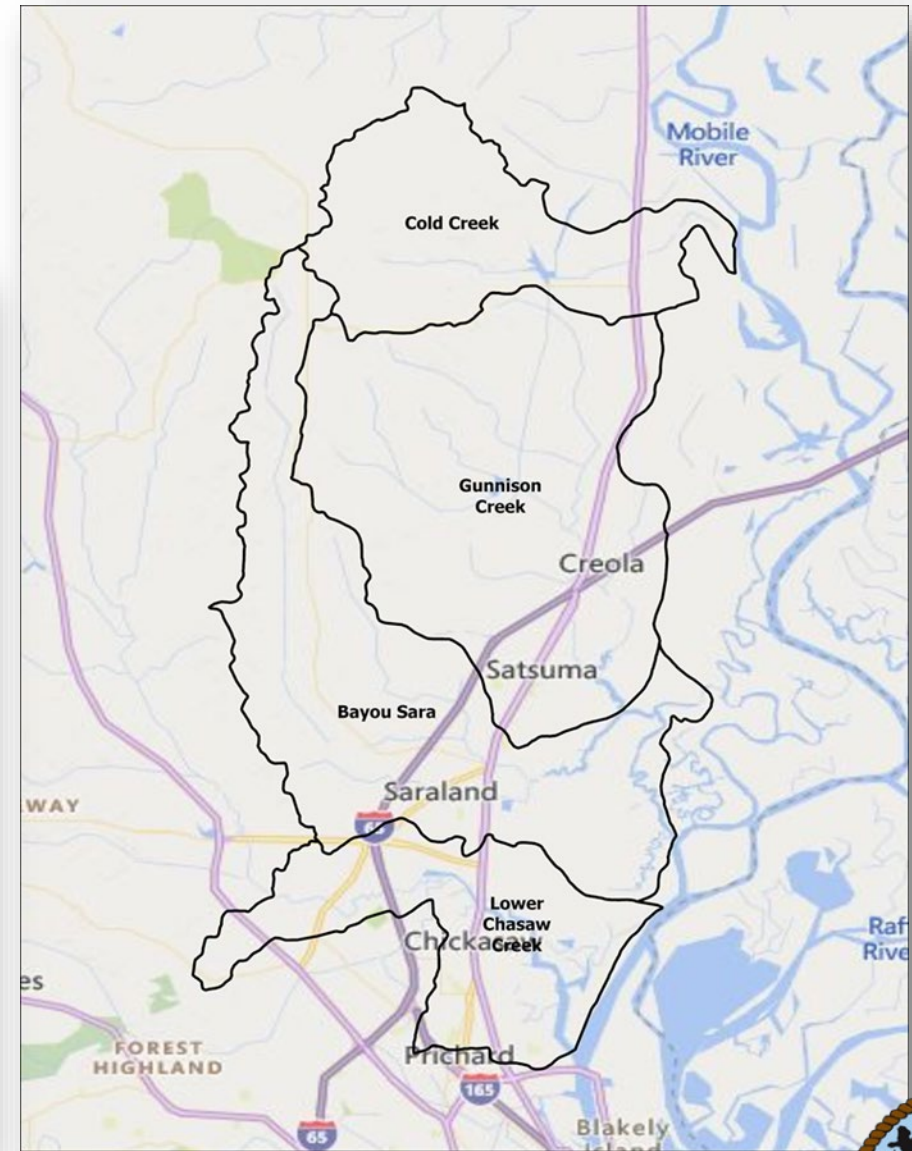
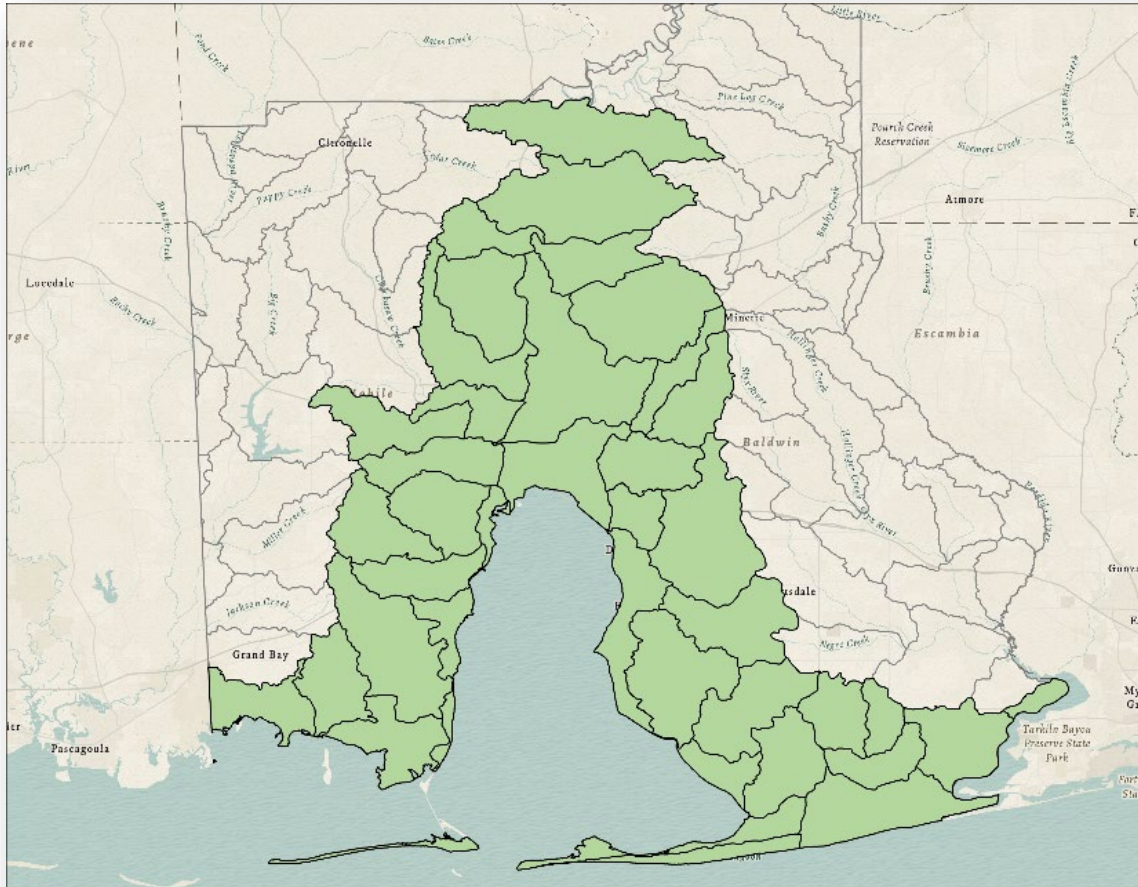
**Environmental Health and  
Resilience**



**Water Quality**



# The Methodology: A Watershed Approach





# Goals of watershed planning ...

- Improve water quality
- Improve habitats
- Protect continued uses of natural resources
- Improve watershed resilience
- Expand opportunities for community access
- Institutionalize Cooperation





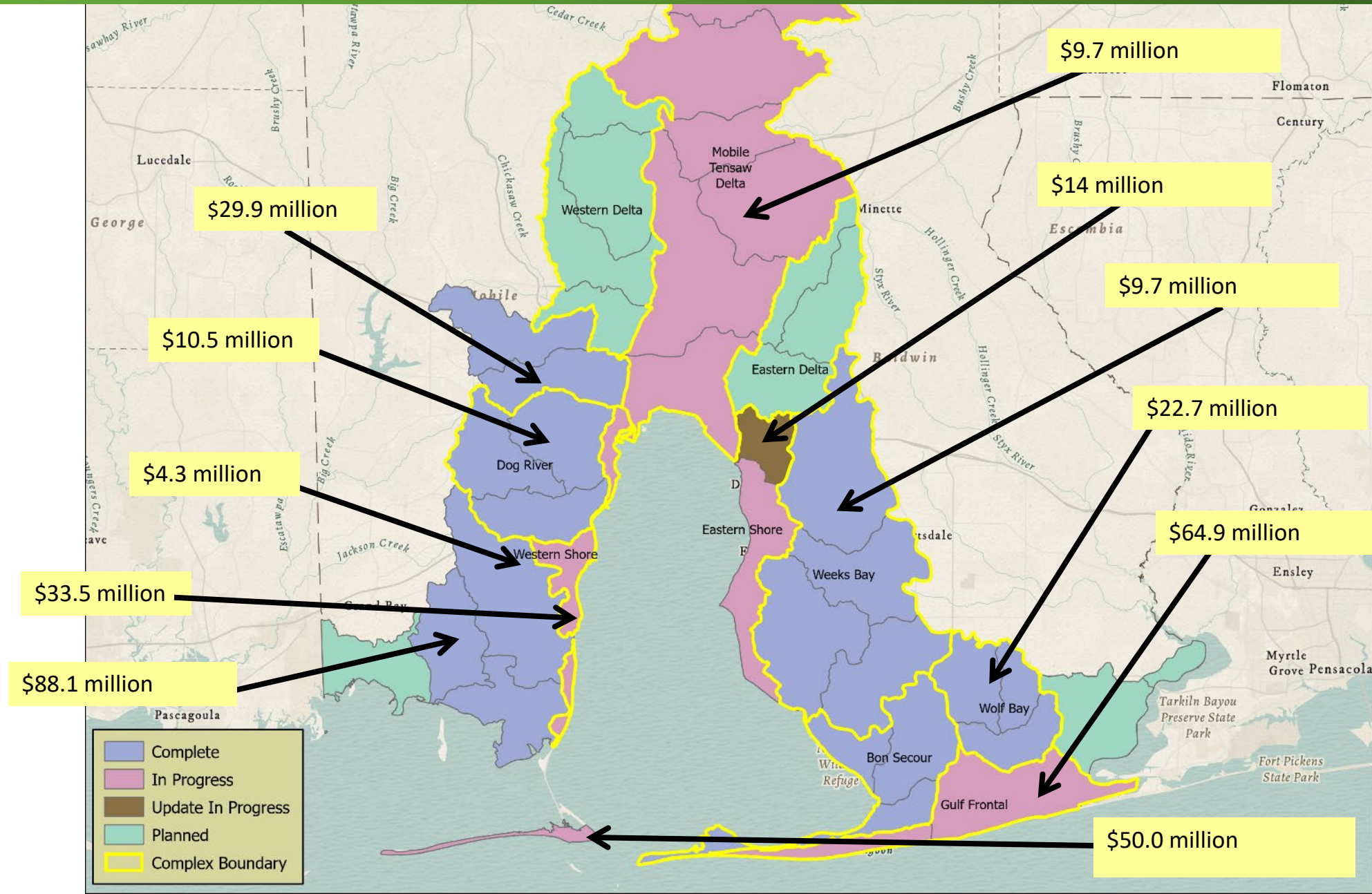
# How watershed plans are informing coastal restoration

- Intensive community **education and engagement**
- Identification of **restoration and protection opportunities**
- **Tool for local governments** in securing resources
- Recommendations prioritized on “**biggest bang for the buck**”
- **National Flood Insurance Program Discounts** through the Community Rating System



# Why do we plan?

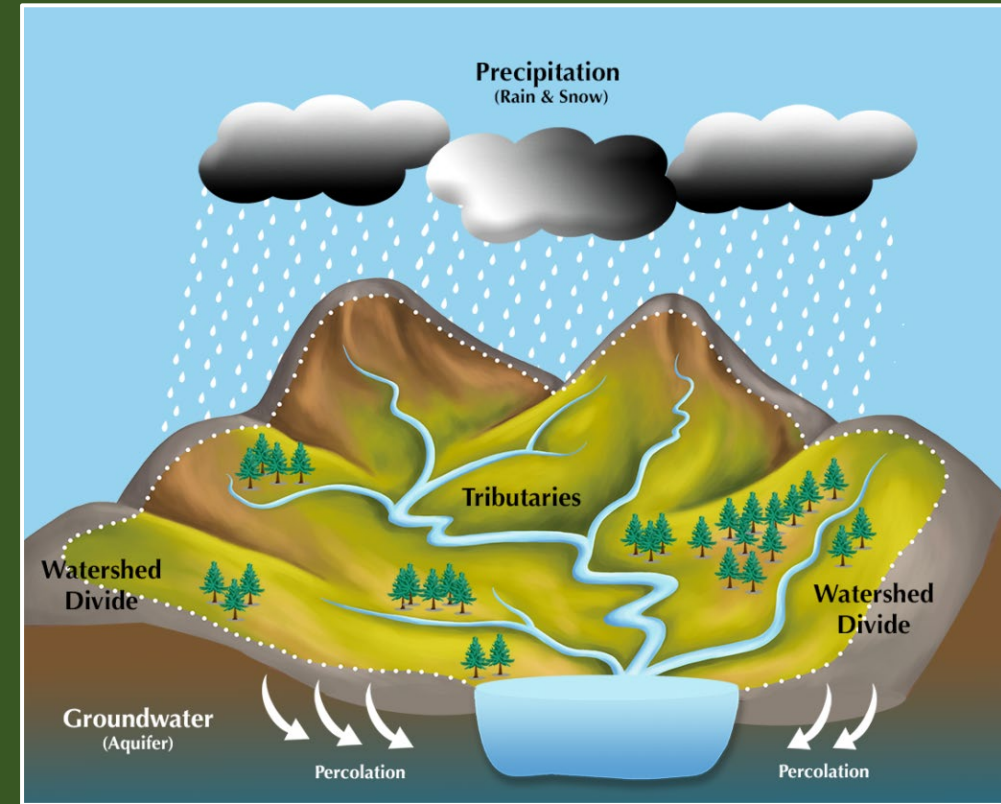
To collectively  
and  
continuously  
improve  
environmental  
management  
across the  
Alabama coast





## What is a Watershed

- Land area that channels rainfall and snowmelt to creeks, streams, and rivers and eventually to outflow points such as reservoirs, bays, and the ocean.
- They vary in size and are designated by Hydrologic Unit Codes (HUC) based on geography
- This water often picks up pollutants as it flows, which effects the ecology of the watershed and reservoir, bay or ocean in which it ends up.



# Benefits of a Healthy Watershed

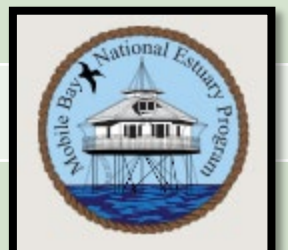
## Provide Ecosystem Services Including

1. Nutrient Cycling
2. Carbon Storage
3. Erosion/Sediment Control
4. Increased Biodiversity
5. Soil Formation
6. Wildlife Movement Corridors
7. Water Filtration
8. Flood Control
9. Food, Timber, and Recreation
10. Reduced Vulnerability to Invasive Species, the effects of climate changes and other natural disasters





Natural Benefits	Economic Benefits
<p>Natural landscapes and floodplains filter pollutants from point and nonpoint sources, promote nutrient cycling and help retain sediment</p>	<p>Natural landscapes filter pollutants and protect water quality.</p>
<p>Intact floodplains and riparian areas enable healthy watersheds to be better adapted to more extreme weather patterns and changes in precipitation associated with climate change</p>	<p>Floodplains and natural landscapes minimize the area and impacts of floods, reduce the burden on public drainage infrastructure and increase groundwater recharge</p>
<p>Watersheds with intact land cover and soil resources are capable of sequestering carbon, thereby offsetting greenhouse gas emissions.</p>	<p>Healthy watersheds provide ample opportunities for fishing, boating, swimming, hiking, biking, wildlife viewing and ecotourism.</p>
<p>Naturally function ecosystems are more resilient and can favor indigenous species, helping them out-compete invasive species.</p>	<p>Increases property values – housing near healthy watersheds has higher property values than those in or around degraded ecosystems.</p>
<p><a href="http://www.epa.gov/hwp/benefits-healthy-watersheds">www.epa.gov/hwp/benefits-healthy-watersheds</a></p>	



## The Mobile Bay Watershed

- Covers  $\frac{3}{4}$  of the State of Alabama and Portions of Mississippi, Tennessee, and Georgia.
- Drains over 43,000 Square Miles and is the largest inflow on the North American Continent.
- The purpose of this project is to promote the wise stewardship of the water quality ecological integrity of Alabama's estuaries (places where fresh water meet the sea)





## Watershed Overview

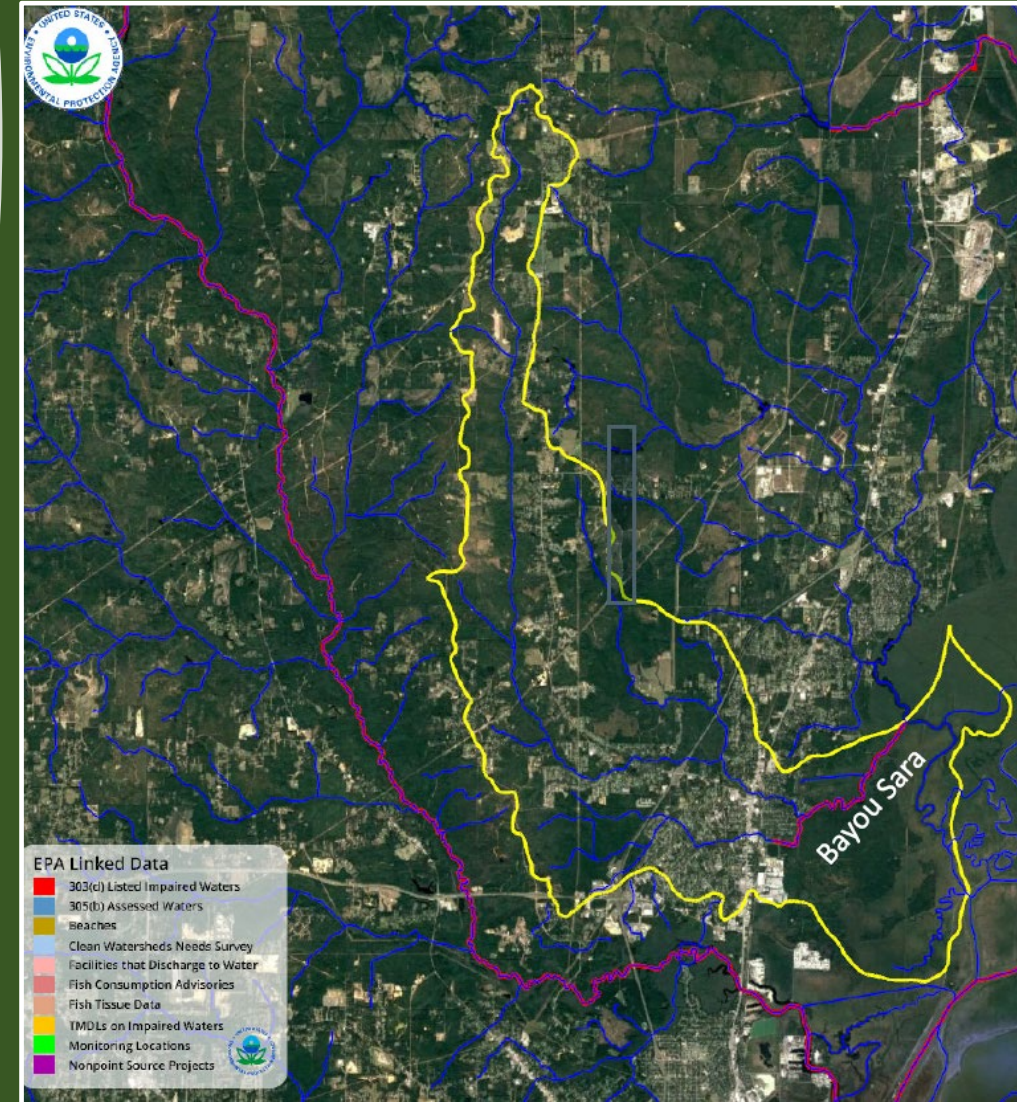
- Western Delta Consists of Four Hydrological Units: Lower Chasaw, Bayou Sara, Gunnison Creek and Cold Creek
- There are 78,150 Acres Within the Watersheds
- 1,260,775 Linear Feet of Stream
- 17,022 Acres of Wetlands





## How Watershed Plans are Informing Coastal Restoration

- Intensive Community Education and Engagement
- Identification of Restoration and Protection Opportunities
- Tool for Local Governments in Securing Resources
- Recommendations Prioritized on “Biggest Bang for the Buck”
- National Flood Insurance Program Discounts through the Community Rating System





## Goals of Watershed Planning

- Improve Water Quality
- Improve Habitats
- Protect Continued Customary Uses of Biological Resources
- Improve Watershed and Community Resilience
- Expand Opportunities for Community Access



# Why am I Here?

## Functions of a Steering Committee

- **Provide Support and Guidance**
  1. Make connections with groups to ensure coordination and efficiency
  2. Interact with the group on strategy, and community engagement
- **Provides Leadership**
  1. Serve as vocal champion of the collective impact effort for the project.

## Integral Bridge Between the Community and the Project





# Let's Talk Critical Issues