Welcome & Approval of Minutes

Merceria Ludgood, Mobile County Commission
Charles “Skip” Gruber, Baldwin County Commission
NFWF/RESTORE update

Patti Powell, ADCNR
Eliska Morgan, AGCRC

Monitoring Efforts in Coastal Watersheds

Marlon Cook, GSA
Municipal Perspectives on Watershed Plan Implementation

Dane Haygood, City of Daphne
Mike McMillan, City of Spanish Fort

Update on Coastal Watershed Planning

Roberta Swann, MBNEP
From the Headwaters to the Shores: A Watershed Approach

Government Networks Committee
September 25, 2015

Roberta Swann, Mobile Bay National Estuary Program

The Mobile Bay National Estuary Program

Our mission is to promote the wise stewardship of the water quality and living resources of Alabama’s estuaries

- Funded by U.S. EPA, State of Alabama, and local governments and private interests
- One of 28 “nationally significant estuaries” in the United States
- In existence for 19 years
- Comprehensive Conservation Management Plan (CCMP)
The MBNEP Management Conference

Executive Committee

Government Networks Committee
Local Officials, State & Fed Agencies

Science Advisory Committee

Project Implementation Committee
Public/Private Resource Managers

Business Resources Committee
Industry, Fisheries, Utilities, Other

MBENP Staff

Citizen Action Committee
Grassroots Organization

Finance Committee
Citizens

MBNEP Conference Committees

- Science Advisory: Investigating the stressors
- Project Implementation: Partners on the ground
- Business Resources: Networks, influence
- Community Action: Connecting people and actions
- Government Networks: Issues, regulations
- Finance: Garnering community investment

Photo by Alabama Power
MBNEP’s Focus Areas

Ecosystem Status and Trends (SAC)
- Research
- Assessment and Monitoring
- Reporting

Technical Assistance and Capacity Building (GNC, BRC, CAC)
- Tools
- Training
- Incentives
- Direct Assistance

Ecosystem Restoration and Protection (PIC)
- Water Quality
- Living Resources
- Habitats
- Healthy Communities

Community Awareness, Education, Involvement (BRC, CAC)
- Awareness Campaigns/Materials
- Outreach & Public Involvement
- Citizen Monitoring
- Volunteer support for restoration

The Watershed and Estuary
So-What’s the issue?

Over 1/3 of this estuary’s habitat has been converted from natural to developed land.

<table>
<thead>
<tr>
<th>1974 Class → 2008 Class</th>
<th>1974 Class (Acres)</th>
<th>Converted (Acres)</th>
<th>Percent Converted (Acres)</th>
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<td>Barren → Urban</td>
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Increases in pollution from runoff

Channel Erosion
Sediment Deposits

Decreased aesthetics/property values
Stormwater Runoff resulting from Community Growth is one of coastal Alabama’s Greatest challenges

The Question

How do we balance environmental health with economies that profit from its health?
What people value most about living in coastal Alabama...

- Access to Water and Open Spaces
- Coastlines (Beaches and Other Shorelines)
- Fish
- Heritage and Culture
- Environmental Health and Resilience
- Water Quality
Highest Ranking Habitats, Ecosystem Services and Stresses

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<th>Habitat</th>
<th>Ecosystem Services Most Stressed</th>
<th>Top Stress Impacts</th>
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<td>Intertidal Marshes and Flats</td>
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<td>Streams and Rivers (Riparian Buffers)</td>
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</table>
1. Prioritized Wetlands
2. Point Source Discharge (NPDES)
3. Toxic Release Inventory
4. ADEM Monitoring Stations
5. Prioritized Intertidal Marshes and Flats
6. Acquisition Property
7. Protect Lands
8. Impaired Waters
Traditional Approach
Addressing the consequences of land development

VS

Watershed Approach
Eliminating or reducing the source of the problem

TRADITIONAL is defined as:
- Drainage Systems
- Reactive (Solve Problems)
- Engineer-driven
- Protect Property
- Pipe and Convey
- Bureaucratic Decisions
- Local Government Ownership
- Narrow Scope of Work (drainage focus only)

WATERSHED is defined as:
- Ecosystems
- Proactive (Prevent Problems)
- Interdisciplinary Team-driven
- Protect Property and Resources
- Mimic Natural Processes
- Consensus-based Decisions
- Partnerships with Others
- Holistic Scope of Work (stormwater integrated with land use)
Components of a Watershed Planning Process

- **Build Partnerships**, including identification of key stakeholders and solicitation of community input and concerns.
- **Characterize the Watershed**, including creation of a natural and cultural resource inventory, identification of causes and sources of impairments, identification of data gaps and estimation of pollutant loads.
- **Set Goals and Identify Solutions**, including determination of pollutant reduction loads needed and management measures to achieve goals.
- **Design Implementation Program**, including implementation schedule, interim milestones, criteria to measure progress, monitoring component, information/education program, and identification of technical and financial assistance needed to implement plan.
- **Monitor Response and Adapt**.

The Difference Between the Comprehensive Conservation Management Plan and Watershed Management Plans
The D’Olive Watershed

THE CHALLENGE
- ADCNR
- ADEM
- ALDOT
- AT&T
- Baldwin County
- City of Daphne
- City of Spanish Fort
- CACWP
- Cypress/Spanish Fort LLP
- GSA
- Lake Forest Improvement Committee
- Lake Forest POA
- Malbis Properties
- MBNEP
- MASGC
- NRCS
- State Rep Randy Davis
- Tonsmeire Properties
- USACE
- USFWS
- US Rep Joe Bonner

THE STAKEHOLDERS

NASA LANDSAT, 1974
A tributary to Joe’s Branch
...Threatening a highway

Enter
• City of Daphne
• City of Spanish Fort
• ALDOT
• Westminster Village (Property Owner)
• GSA
• ADCNR
• MBNEP- Thompson Engineering

CRISIS LOOMING...

ADEM Section 319 Grant
Before...

THE RESTORATION
JOES BRANCH

During...

After: Step Pool Storm Conveyance in Action
Measuring Results

- Geological Survey of Alabama Monitored Pre and Post Restoration
  - Turbidity & TSS decreased significantly as a result of the restoration at Joe’s Branch

The Restoration Continues with NFWF-GEBF

**D’Olive Watershed Restoration**

**Estimated Costs**
Watershed Restoration
13 Stream Segments located in
D’Olive Creek
Joe’s Branch
Taiwasee Creek

Total: $6,781,000

**Partners**
City of Spanish Fort
City of Daphne
Baldwin County
Private Landowners
ALDOT, ADEM, GSA
Mobile Bay NEP

Restoration in progress.
Past Investment totals over $1,100,000
Initial Implementation Recommendations from WMP

**Stormwater-**
- **Install Green infrastructure Retrofits** (public areas)
- **Remove sediment** - USA wet ponds, Langan Park
- **Construct energy dissipater** on Twelve Mile Creek
- **Improve trash management**; **initiate water-based** collection program; install GPRS in strategic locations

**Wastewater-**
- **Remove illicit discharges** to SW system
- **Remove failing septic systems**

**Ecology-**
- **Improve** management of invasives
- **Restore** streambank and riparian buffers
- **Restore** wetlands

**Access-**
- **Build greenway** (public/private easements)
- **Build blueway** - 3 accesses, 5 portage enhancements

**SLR-**
- **Restore** tidal marsh landward of existing marsh
- **Install** backwater control valves

**Vision: Three Mile Creek greenbelt stretching from the University of South Alabama to Mobile River**

- 2014 – EPA/ADN/MAWS/County/ADCNR/MBNEP funded WMP completed. MBNEP secured funding and oversaw the development.
- April 2015 – City of Mobile receives $386,00 grant for construction of ¾ mile of TMC greenway.
- 2015 – Mobile County Health Department grant to build kayak launch and walk/bike trail.
Three Mile Creek Watershed

TMC Community Engagement
Fowl River Watershed

The Trigger: Eroding Islands
### Fowl River Watershed Restoration
**Phase One: Stabilize and Develop Plan**

#### Estimated Costs

<table>
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<tr>
<th>Description</th>
<th>Cost</th>
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<td>Mon Louis Island Tip Restoration</td>
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<td>Sediment Study</td>
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<td>Watershed Management Planning</td>
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<td><strong>Total</strong></td>
<td><strong>$2,050,000</strong></td>
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#### Partners
- State of Alabama
- Mobile County
- Landowners
- Mobile Bay NEP
- TNC

*Restoration Begun. Current investment almost $100,000.*

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### Bayou La Batre

#### Outreach & Engagement
- Approximately 240 people have attended public outreach meetings to date
- Engaging community leaders, including County Commissioners and State Representatives and Senators, to provide an orientation and background on WMP

#### Watershed Characterization
- Completed data gathering and identified data gaps
- Designed and initiated sampling program for upper and lower watershed
- Deploying meters for flow measurements
Bayou La Batre

Access
• Identifying recreational and access opportunities in watershed
• Reviewing parcel ownership in watershed

Habitats
• Assessing ecosystem services of watershed and marshes
• Assessing shoreline health and protection and opportunities for preservation
• Incorporating Alma Bryant High School student participation in sampling program

Water Quality
• Assessing flow, nutrients and other water quality parameters in sampling program
• Designing pathogens sampling program
• Assessing dischargers and WWTP in watershed

Environmental Health & Resiliency
• Performing vulnerability assessment including SLAMM and SLOSH modeling and sea level rise analysis

Bon Secour

• Watershed characterization & community engagement underway
• Established Bon Secour’s first zone location for 2015 Coastal Clean Up
• Initial steering committee meeting on Sept 23
• Community input meetings
  • Foley on Dec 2
  • Gulf Shores on Dec 3
Adjourn