Mobile Bay National Estuary Program Project Implementation Committee

Blakeley Classrooms, 5 Rivers Delta Resource Center
Thursday, August 18, 2016 @ 1 p.m.
Preceded by Coastal AL Clean Water Partnership Steering Committee from 1000-Noon
(Dewberry will provide lunches to participants from noon-1:00 pm)

Agenda

1. **Call to Order**
2. **Approval of Minutes:** May 31, 2016
3. **Old Business**
   - **A. PIC Watershed Management Planning Update –** Christian Miller – AUMERC/MBNEP
   - **B. Project Implementation Reports**
     - **1.) Marsh Island, Shell Belt/Coden Belt Road, and Point Aux Pines Living Shorelines projects** – Carl Ferraro, ADCNR-SLD
     - **2) Swift Tract LS** – Dan Van Nostrand, NOAA
     - **3) Northern Mon Louis Island –** Tom Herder, MBNEP
     - **4) D'Olive Creek Watershed Stream Restorations –** Tom Herder, MBNEP
     - **5) Other**
4. **New Business**
   - **A. Development by TNC of the Habitat Restoration Plan and Watershed Comparison Tool**

     1) Update on Plan and Alabama Watershed Tool Development – Mary Kate Brown, - The Nature Conservancy. Visualizing and discussing recommended projects from watershed management plans overlain on 2009 habitat data to showcase relationships between proposed projects and prioritized habitats. Visualizing this information will help determine needs and/or gaps in data layer associated with the habitats. ***Current Map Layers are attached -See next page.***

     2) Past Habitat Conservation Priorities: Celebrating past successes before setting new priority goals – Judy Haner – The Nature Conservancy**.**
   - **B. Towards Restoration of Lake Forest Lake**

     1) Lake Forest Mapping – Analysis of Shoaling and Pool Volumes – Dr. Bret Webb, University of South Alabama. Dr. Webb will discuss data and results of topographic and bathymetric mapping of the lake in the Lake Forest subdivision, a driver in the development of the D'Olive WMP.

     2) Developing potential engineering alternatives for restoring capacity of Lake Forest Lake – Matthew Jones, Integrated Science and Engineering

     3) Other
5. **Adjourn**

AL Watershed Comparison Tool Map (Preliminary) Map Layers

- Watersheds
  - HUC8s
  - HUC12s
- Political Boundaries
  - Alabama Counties
  - AL Congressional Districts
- EPA Healthy Watersheds Assessments
  - Watershed Health
  - Watershed Vulnerability
- Rivers and Streams
  - Major Streams and Rivers
- Wetlands
  - Wetlands
- Land Cover
  - Land Cover Classifications
- Protected Lands
  - Protected Lands
- Proposed Acquisition Tracts
  - Proposed Acquisition Tracts 2006
- Fowl River Proposed Projects
  - Proposed Project Points
  - Proposed Project Areas
  - Proposed Project Headwaters
- Three Mile Creek Proposed Projects
  - Three Mile Creek Project Lines webmercator
  - Three Mile Creek Project Areas webmercator
- All Habitats (2009)
- Priority Habitats (2009)
  - All Priority Habitats
  - Priority Habitat Breakdown
    - Priority Beach and Dune Habitat
    - Priority Intertidal Marsh Habitat for Conservation
    - Priority Intertidal Marsh Habitat for Restoration
    - Priority Riverine Wetlands Habitat
    - Priority Pine Savannah Habitat
    - Piority Longleaf Pine Habitat
    - Priority Maritime Forest Habitat
    - Priority SAV Habitat
    - Stream Riparian Buffers for Conservation

Mobile Bay National Estuary Program
Project Implementation Committee Meeting
Tuesday, August 18, 2016
5 Rivers Delta Resource Center Blakeley Classrooms

Minutes

Attendees:

L. G. Adams (ADCNR/WBNERR)
Sherry Allison (Allen Engineering)
Don Bates (Thompson)
Michael Barnett (Tetra Tech)
Emery Baya (Thompson)
Mark Berte (AL Coastal Foundation)
Don Blancher (Moffat & Nichols)
Denise Brown (City of Mobile)
Mary Kate Brown (TNC)
Scott Brown (ADEM)
Celena Boykin (Baldwin County)
Leah Bray (Anchor QEA)
Wade Burcham (Int. Science & Eng)
Roger Burke (Tetra Tech)
Casi Callaway (Mobile Baykeeper)
Ashley Campbell (City of Daphne)
John Carlton (Thompson Engineering)
Ray Clifton (AL Forestry Commission)
Georganna Collins (E& E)
Mike Corporael (City of Daphne)
Evan Davis (ALDOT)
Alan Doyle (AL Coastal Foundation)
Benji Elmore (AL Forestry Commission)
Mike Eubanks (Thompson Engineering)
Carl Ferraro (ADCNR-SLD)
Richard Fields (AL Forestry Commission)
Brett Gaar (Volkert)
Rosemary Ginn Sawyer (City of Mobile)
Meg Goecker (Moffatt & Nichols)
Christopher Grant (Thompson Engineering)
Judy Haner (The Nature Conservancy)
Patric Harper (US Fish & Wildlife Service)
Bob Harris (Alabama State Port Authority)
Doug Heatwole (Ecology & Environment)
Cindy Henderson (Cypress Environmental)
Phillip Hinesley (ADCNR-SLD)
Matt Hinton (City of Spanish Fort)
Rob Howell (Anchor QEA)
Scott Jackson (E & E)
Jenny Jacobson (USACOE)
Andy James (Volkert)
Matthew Jones (Int. Science & Eng)
Cade Kistler (Mobile Baykeeper)
Dina Knight (Dewberry)
Joey Koptis (Baldwin County SWCD)
Bethany Kraft (Volkert)
Jason Kudulis (Mobile Baykeeper)
Kara Lankford (Ocean Conservancy)
Suzanne Langley (Birmingham Audubon)
Riley Lecka (North States Environmental)
Ken Leslie (AL Forestry Commission)
Nicole Love (TNC)
Ryan Mains (ACF)
Shannon McGlynn (ADEM)
John Menge (Moffat & Nichols)
Jaime Miller (ADCNR-MRD)
Richard Miller (AL Forestry Commission)
Eliska Morgan (ADCNR)
Chris Oberholster (Birmingham Audubon)
Coen Perrott (MS DEQ)
Larry Parson (US Army Corps of Engineers)
Ray Richardson (City of Mobile)
Justin Rigdon (ADEM)
Sam St. John (ACF & Baykeeper)
Rosemary Ginn Sawyer (City of Mobile)
Morgan Schneider (AL Coastal Foundation)
Kari Servold (Dewberry)
Randy Shaneyfelt (ADEM)
B. J. Smith (Shorecombers)
Jerry Still (Digital Engineering)
Laura Stone (Mobile Baykeeper)
Mary Beth Sullivan (City of Mobile)
Jason Swack (Volkert)
Lee Walters (Goodwyn Mills Cawood)
Chris Warn (Dewberry)
Bret Webb, University of South Alabama
Terry Williams (CERM)

MBNEP Staff: Roberta Swann, Rick Frederick, Christian Miller, Amy Newbold, Dixie Pomerat, Tom Herder

Takeaways

- Watershed management planning continues with Fowl River completed, Bon Secour, Bayou Le Batre, the Weeks Bay complex, and Dog River currently in development and with consideration of NFWF-funded plans yet to be undertaken and 19 additional RESTORE-funded plans, some being incorporated into complexes with NFWF-funded projects.
- The Habitat Restoration Plan and Watershed Comparison Tool are in development by The Nature Conservancy. A survey distributed to all Management Conference participants and made available to the general population through social media has not gotten the attention that was expected, and Ms. Haner gracefully admonished PIC members for broader response. The survey queries respondents over the relative importance of various data sets to drive decisions through the Plan and Tool.
- Dynamic modeling was developed through the six-year, NOAA-funded, collaborative, Ecological Effects of Sea Level Rise in the Northern Gulf of Mexico for our region, tested here, and hopefully will be applied here. It captured many of the complexities of coastal processes and how they interact in the face of SLR. These models have high resolution outputs based on years of interdisciplinary research, and we now have the opportunity to have these data formatted in a way that we can use.

1. Call to Order

After a lunch that was kindly provided for Coastal AL Clean Water Partnership Steering Committee and PIC members by Dewberry, the meeting was called to order at 1:00 pm by Patric Harper. Attendees went through a round of Self-introductions.

2. Approval of the Minutes

Mr. Harper asked for any deletions, additions, changes to the minutes from May 31, 2016. Hearing none, he called for a motion to approve the minutes. Carl Ferraro made the motion, which Sam St. John seconded. The motion carried unanimously.

3. Old Business

A. Progress Reports/Updates on Watershed Management Planning – Christian Miller, MBNEP/AUMERC/CACWP

Christian Miller again began his report with a map showing groupings of 12-digit HUCs into complexes to provide economy of scale and ensure rapid development of watershed management plans (WMPs), including the Dog River Complex (Upper Dog River, Lower Dog River, and Halls Mill Creek with Garrows Bend) (Goodwin Mills Cawood); Bayou Le Batre with West Fowl River and Dauphin Island (Dewberry); the Weeks Bay Complex (Upper, Middle, and Lower Fish River; Perrone Branch, and the Magnolia River) (Thompson Engineering); the Wolf Bay Complex (Graham's Bayou, Mifflin Creek, and Sandy Creek) (Planner TBD); Gulf Frontal Complex (Perdido Pass-Frontal Gulf of Mexico and Little Lagoon) (Planner TBD); and the Tensaw-Apalachee Complex (Tensaw-Apalachee, Grand Bay, and the Basin) (Planner TBD).

With Goodwyn, Mills, and Cawood having completed the Fowl River WMP, Mobile County passed a resolution of support for the WMP. Installation of watershed signage is ongoing. A NFWF-Gulf Environmental Benefit Fund proposal has been submitted related to priority restoration of the four spits. Restoration of northern Mon Louis Island is in progress.

Development of the WMP for the Mississippi Sound Complex by Dewberry continues. The Bayou Le Batre portion is focusing on Safe Harbor and movement of critical infrastructure, stormwater infrastructure and sanitary sewer overflows, and possibilities of property acquisition. Community engagement has begun in West Fowl River, where initial field visits have been undertaken. Community engagement has also begun on Dauphin Island.

Large community engagement/input sessions are complete in the Bon Secour Watershed and data has been compiled. Volkert has finalized WMP goals and objectives, is compiling recommended management measures, and is beginning a draft of the WMP.

Draft sections of the WMP for the Dog River Complex have been completed by GMC and edited. Field examination of priority areas is ongoing, and a Management Measures Working Group has been formed, met in July, and began drafting recommended management measures.

With the WMP for the Weeks Bay Complex in development by Thompson since January, a stakeholder working group is meeting regularly. Data acquisition and review is ongoing and feeding into a GIS database. Dr. Latif Kalin of Auburn is developing a SWAT (Stormwater Assessment Tool) model to assess different scenarios of future build-out within the watershed and potential water quality impacts associated with each scenario.

B. Project Implementation Reports

1) Marsh Island, Shell Belt/Coden Belt Road, and Point Aux Pines Living Shorelines Projects – Carl Ferraro, ADCNR-SLD

Mr. Ferraro reported that **Marsh Island restoration** is under way. An aerial photograph supplied by Sam St. John shows a 50-acre containment area surrounded by a side cast sediment barrier on the north side of the existing island, where dredge material is being pumped. Oyster Break rings will be installed to attenuate wave energy on the south and west sides of the project over a length of 3,200 feet (including gaps).

NRDA-funded living shorelines projects at **Shell B**elt and **Coden Belt Roads** and northeast **Point Aux Pines** will include 8000 feet and approximately 2,400 feet of breakwater plus marsh plantings.

2) NOAA Swift Tract Living Shoreline. Mr. Ferraro reported that the **NOAA Swift Tract Living Shoreline Project** is under construction contract with Crowder Gulf. A 1.5-mle rubble mound breakwater identical to that of the TNC living shoreline there will be installed adjacent to that project.

3) Northern Mon Louis Island – Emery Baya, Thompson.

Installation of a 1,400-foot continuous rock breakwater along the 1997 shoreline footprint of northern Mon Louis Island is nearing completion. Greystone Industries, a subcontractor to Orion Marine Construction is moving the rock by barge from the Steiner property across the mouth of Fowl River. Orion will begin dredging operations to create over four additional acres of salt marsh beginning after Labor Day.

4) **D'Olive Creek Watershed Stream Restorations – Tom Herder, Mobile Bay National Estuary Program**

WMP-recommended and NFWF Gulf Environmental Benefit Fund-funded stream restoration work continues in the D'Olive Watershed. Emery Baya, Lee Walters, and Tom Herder provided brief summaries of restoration efforts:

Joe's Branch – Southern Excavating is nearing substantial completion of restoration of three stream reaches (J4-2, J4-1, and JA), the J Stormwater Management Facility (Westminster Gates retention pond), and creation of the new JB Stormwater Management Facility/retention pond upstream of the step pool conveyance.

Tiawasee Creek – Substantially completed in April by North State Environmental, vegetation is filling in at the Tiawasee stream restoration, which has, thus far, performed admirably.

D'Olive Tributary D4-D6 is nearing substantial completion after only 75 days of construction by North State. With vegetation unplanted or yet to be established, significant precipitation during the week of August 8 provided nervous moments and an initial test for the restored and relocated stream, which underwent a bankfull event with nearly two inches of rain falling in an hour on August 10. A Tuesday inspection with

GMC engineers revealed sound performance by the restored stream. Dirt pit stabilization is also nearing completion while waiting for delivery of a large concrete junction box.
D'Olive Tributary DA3 has reached 100% design and Volkert is involved with bid document preparation. The request for bids will be advertised for three weeks, with a pre-bid meeting planned for September 20 at Daphne City Hall and bid openings a week later at the MBNEP office.
D'Olive Tributary DAF has reached 30% design and Hatch Mott has been approved to proceed to 60% while property owners investigate possibilities of rezoning by the City of Daphne.
D'Olive Tributary DAE is undergoing subsurface analysis in preparation of conceptual design development.

4. New Business

A. Development by TNC of the Habitat Restoration Plan and Watershed Comparison Tool

2) Past Habitat Conservation Priorities – Judy Haner, The Nature Conservancy
Judy Haner led off and provided a historical perspective by reviewing priority habitat parcels and projects identified in the 2006 *Conserving Alabama's Coastal Habitats: Acquisition and Restoration Priorities of Mobile and Baldwin Counties*. She included Acquisition and Restoration Priorities in her review (see the three-slide Powerpoint presentation at). Main points discussed included the West Cedar Point Sawgrass tract in the second slide. No one was able to identify this project. Among the Gulf Islands on the same slide, she mentioned the placement of sand on Sand Island (2011), and Larry Parson reported that the sand budget being developed was being done for a broader area than just Dauphin Island. On the third slide, oysters at the Weeks Bay Willams Tract were mentioned, but Phillip Hinesley corrected that these are, in fact, closed waters to oyster harvest and that reefs had been installed there, but not oysters. With regard to the Mobile Tensaw River Delta, Mr. Parson noted that wetlands are being planned but have to await RESTORE Pot 2 funds.

1) Update on Plan and Alabama Watershed Tool Development – Mary Kate Brown, The Nature Conservancy
Mary Kate Brown used priority habitat shape files created by a working group that included the MBNEP, TNC, and the NOAA Coastal Services Center in developing the MS-AL Habitat Planner Tool in 2009-2010. The Watershed Tool in development will include shape files provided by the NFWF-funded SAV mapping and high-resolution habitat maps currently being developed. Her demonstrations included SAV distribution in and around D'Olive Bay and priority habitats in the Three Mile Creek Watershed.

B. Lake Forest Mapping – Analysis of Shoaling and Pool Volumes – Dr. Bret Webb, University of South Alabama.
Dr. Webb described his background with this particular project, which he apparently contracted on the third attempt to get him to do this survey in 2016. He reported that the work is funded by the Lake Forest Property Owners Association and the City of Daphne. Its purpose was to determine how much sediment has accumulated since the 1973-74 construction of the dam.

He described historic land use/land cover from 1938 when it was a heavily wooded area, 1952, 1974 when the lake and dam were constructed, 1997 showing loss of open water in Tiawasee, and 2009 when open water had disappeared in both Tiawasee and D'Olive creeks. In the early 1980s, Isphording estimated sediment deposition at 48K tons/year. Marlon Cook determined that in 2010, sediment deposition Lake Forest had been reduced to 7.8K tons/year. Reductions are assumed to result from improved construction best management practices. No data existed, prior to this survey, on depths, topography/bathymetry, or amounts of sediment accrued.

He described the scope of the project, problems with the Jag Ski that resulted in data collection from kayaks, walking or wading. He noted that approximately 12,000 data points were collected – 1,500 walking and 10,500 paddling. Sediment sampling was limited with three samples each from Tiawasee and D'Olive creeks and one from Tom's Cove. Aerial extent was compared against a 1858 reference survey, but no geo-reference existed.

His results indicated that approximately 20 feet of sediment had accreted generally. With regard to pool volume, in 1974, 500 acre feet existed at 19' elevation or below, of which, in 2016, only 200 acre feet remained. He described sediment character as largely ranging from fine sand to coarse sand. In general, he estimated that ~80% of lake area has shoals, with over 310,000 cubic yards of deposited sediment, reflecting possibly 90 more years of sediment storage capacity.

2) Developing potential engineering alternatives for restoring capacity of Lake Forest Lake – Mattehw Jones, Integrated Science and Engineering

Mr. Jones announced a public meeting to discuss Dr. Webb's analysis and potential engineering solutions for restoring capacity to the lake, which will take place at the Daphne City Hall at 6 pm on Tuesday, August 30. He solicited PIC participation at that meeting and at the next PIC meeting tentatively scheduled for Thursday, November 17. He noted that restoration of the Lake should be driven by the D'Olive Creek Watershed Management Plan. Questions include:

Where should sediment be removed?
How should sediment be removed?
How deep should we excavate?
How can we control future sediment loads before they get into the Lake (in tributary arms)?
What do we do with the sediment?

He again encouraged PIC members to participate in the August 30 meeting.

5. Adjourn With no other new business, Mr. Harper adjourned the meeting at 3:00 pm.