

**Mobile Bay National Estuary Program
Project Implementation Committee Meeting
Wednesday, April 21, 2015
Tensaw Theater, 5 Rivers Delta Resource Center**

Minutes

Attendees:

L. G. Adams (ADCNR/Weeks Bay NERR) Sherry Allison (Allen Engineering)
Emery Baya (Thompson Engineering) Roger Burke (Tetra Tech)
Ashley Campbell (City of Daphne) Jamie Childers (Tetra Tech)
Georganna Collins (Ecology & Environment) Bert Eichold (Mobile County Health Dept)
Carl Ferraro (ADCNR-SLD) Leslie Gahagan (City of Foley)
Judy Haner (The Nature Conservancy) Patric Harper (US Fish & Wildlife Service)
Bob Harris (Alabama State Port Authority) Doug Heatwole (Ecology & Environment)
Phillip Hinesley (ADCNR, SLD) Matthew Hinton (City of Spanish Fort)
Patti Hurley (ADEM) Teddy King (Alabama Dept. of Public Health)
James Landry (ADEM) Kara Lankford (Ocean Conservancy)
John Mareska (AL MRD) Ray Mayhall (ACF, Baykeeper, FRACA)
Glenn Nicholas (Mobile County SWCD) Joyce Nicholas (Mobile County SWCD)
Melissa Pringle (Allen Environmental) Justin Rigdon (ADEM)
Lynn Sisk (Tetra Tech) Nickelle Stoll (Mobile Baykeeper)
Sabra Sutton (CH2M Hill) Galen Thackston (Goodwyn Mills & Cawood)
Tim Thibault (Vittor and Assoc) Leslie Turney (Army Corps of Engineers) Will
Underwood (Grand Bay NERR) Lee Walters (Goodwyn Mills Cawood)
MBNEP Staff: Roberta Swann, Amy Newbold, Rick Frederick, Christian Miller, Tom Herder
Remotely: Bob Howard (EPA Region IV)

Takeaways

- Goodwyn, Mills, and Cawood is developing a watershed management plan for Fowl River with a publication target of September, 2015. Featured in Lee Walters' presentation were project goals, identified problems related to shorelines, and the public outreach campaign.
- Galen Thackston, also of GMC, reviewed progress in the development of a restoration plan for D'Olive Creek segments D4-D6. The project is being designed to withstand discharges of 3,750 cubic feet per second (same as April 2014 storm event). Final plans are targeted for early September with contractor selection expected prior to the end of the year.
- Emery Baya of Thompson Engineering reviewed obstacles and progress in developing a restoration strategy for the northern tip of Mon Louis Island along the mouth of East Fowl River. The main obstacle, obtaining fill material for marsh creation, was potentially solved with a plan to borrow from a permitted Corps of Engineers disposal site with replacement using material dredged from the FR navigation channel using State funds. Planning and permitting are moving forward.
- Mr. Baya reviewed restoration efforts and progress in the Joe's Branch subwatershed. Restoration of 1,700-ft tributary JB is underway, as are designs for restoration of JA, J4-1, J4-2, and stormwater management facilities. In light of escalated problems related to the April, 2014 storm, NFWF will be approached with a request for additional funding in early August.
- Ashley Campbell of the City of Daphne reported that bids have been received for restoration of Tiawasee Creek with NFWF and CIAP funding on 26 acres donated by the former property owner. Construction is ambitiously targeted for October, 2015.
- Roberta Swann provided a review of tasks being undertaken and funded through the NFWF Coastal Habitats Restoration Initiative.

- Ms. Swann announced that the City of Mobile had received a \$386K Outdoor Recreation Legacy Grant from the National Park Service to build the first leg of the Three Mile Creek bicycle trail from MLK Avenue to Tricentennial Park.

1. Call to Order

The meeting was called to order at 2:03 by PIC Co-Chair Judy Haner. Self-introductions were made around the room.

2. Approval of the Minutes

Ms. Haner asked for any deletions, additions, changes to the minutes for January 21, 2015. Hearing none, she called for a motion to approve the minutes. Leslie Gahagan made the motion, which Sam St. John seconded. The motion carried unanimously.

3. Progress Reports/Updates on Project Implementation

Lee Walters of Goodwyn Mills & Cawood provided a presentation describing efforts to develop a **Watershed Management Plan for the Fowl River Watershed** (attached as PIC_Fowl and D'Olive.pdf), reporting that a target for publication was September, 2015. Generally, research elements that included water quality, land use/land cover, sedimentation, and coastal research would be used to assess the status of the watershed and to recommend project implementation.

He noted that the greater Fowl River Watershed includes eight subwatersheds. With 65% of the watershed forested or wetlands, 20% agriculture, and only 15% developed, Fowl River offers some opportunities for preservation (unlike heavily urbanized Three Mile Creek).

Project goals in developing the WMP include:

- Determining causes and effect of identified problems (correlating water quality to land use/land cover).
- Identifying restoration/preservation opportunities.
- Prioritizing projects.
- Implementing projects.
- Monitoring results and modifying strategies if necessary.

In addressing shorelines in the Fowl River Watershed, he briefly discussed strategy before listing problems that included:

- Flow volume and speed (causing breaching and erosion of spits and islands)
- Boat wakes (causing shoreline and marsh erosion)
- Sea level rise (converting shoreline and riparian habitat to open water).

In assessing the 47 miles of tidal shoreline, GMC determined that 60% are marsh and 37% are vegetated banks, but 25% of FR shorelines have been armored with either bulkheads or riprap. Zone classifications include marine (Zone I), transitional (Zone II), or freshwater (Zone III). Mr. Walters reviewed conceptual strategies and focuses of long term planning, including using compensatory programs to address existing armoring, establishing No Wake Zones of buffers to adaptively manage current problems, holding the line with regard to watershed condition, and periodically reassessing condition.

He wrapped up by discussing the FR public outreach campaign by

- Identifying members of the Steering Committee, listing outreach/publicity events and efforts, describing public meetings to date and the website (www.fowlriverforever.org).
- Summarizing products of this campaign in terms of understanding both ideas and concerns of community members and then integrating those into research.
- Listing project partners, including MBNEP, GSA, Mobile County, the Mobile County Soil and Conservation District, NFWF, and Lamar Signs.

Galen Thackston took over to deliver the **D'Olive Creek Restoration Project (Segments D4-D6)** portion of the GMC presentation. The project area is in Daphne directly south of an ALDOT culvert running under I-10 near Mile Marker 37 and runs approximately 2,100 linear feet to US Highway 90. It has been a problem spot and the target of previous restoration and maintenance efforts.

Mr. Thackston summarized impacts resulting from the April 29-30, 2014, rain event. Over this 24-hour period 13.3 inches of rain fell on soaked ground, subjecting this reach to a peak discharge of 3,750 cubic feet per second and causing extreme erosion, head cutting, and bank widening that deposited approximately 4,000 tons of sediment downstream and threatened to compromise the upstream interstate crossing. Project objectives are necessarily ambitious and include:

- Reducing sediment supply within the reach.
- Designing a stable stream and floodplain capable of handling a discharge of 3,750 cfs (the same as the 2014 storm event).
- Designing a stable, self-sustaining stream.

He described a list of project constraints that included infrastructure (I-10 and Hwy 90 culverts, ALDOT stabilization armoring, and telecommunication lines), soil conditions, natural topography, upstream and downstream hydrology, floodplain expansion and contraction, and net cut of materials.

He spent several slides discussing design approach, including analysis, development of curves to determine design morphology, sections and layout typicals, and in-stream structures (that included wood toes, threshold riffles, j-hooks, rock cross vanes, log drops with boulders, and constructed riffles).

Mr. Thackston showed 30% design plans and then compared current design parameters to those that existed in 2009. He displayed a timeline that projected submittal of a 60% design for May 4, and final plans and specifications for early September. Contractor selection is expected prior to the end of the year.

Some discussion followed this presentation. Ashley Campbell mentioned the D'Olive Working Groups, the lack of data available to guide initial restoration efforts, and the relative preponderance of data available now.

Emery Baya of Thompson Engineering provided his first presentation describing **Restoration of the Northern Tip of Mon Louis Island**. He provided historical maps to demonstrate change in this area over the last two centuries and noted that the greatest average change was close to a

century ago (pre-armoring?). He provided a map that showed dramatic shoreline recession on the Bay side of the tip of the island through the years 1979, 1997, 2006, and 2011, with nearly static condition on the lee side. He noted that project goals include:

- Stabilizing the shoreline along the bay side of the northern tip of Mon Louis Island.
- Creating/enhancing aquatic, wetland, and upland habitats to the extent possible.

Mr. Baya summarized investigations undertaken prior to design, including a hydrographic and topographic survey, geotechnical investigation (soil test borings and Vibracore tests), and a coastal processes evaluation (showing the challenging 24-mile fetch).

In June, 2014, Thompson delivered an alternatives evaluation to the MBNEP and NFWF. The evaluation included three potential alignments for project footprints: 2006 shoreline (at or near current footprint to maintain current wetlands acreage), 1997 shoreline (adding approximately four acres of wetlands), or the 1979 shoreline (creating an additional seven to eight acres of wetlands).

Three different shoreline stabilization methods were considered: a continuous rock dike breakwater, a segmented rock dike breakwater, or a continuous breakwater constructed from a commercial product, OysterBreak™. Thompson selected the continuous rock dike breakwater, which was also endorsed by consultant Scott Hardaway. A continuous breakwater was necessary in this high energy wave environment, and rocks were selected as a “tried and true” measure for stabilizing shorelines in areas of high wave energy, because of this measures demonstrated longevity and durability, and in consideration of aesthetics and public acceptance.

Sources of fill to create marshes presented a formidable challenge to implementation. Initially, Thompson envisioned dredging suitable material from the Fowl River navigation channel, but geotechnical analysis revealed that these sediments were unsuitable (not enough sand). In investigating other disposal sites for beneficial use of material, moving material by truck or barge was deemed cost prohibitive. Geotechnical analysis in surficial sediments offshore revealed potentially useable material (high sand content) in an area close enough to serve as a hydraulic dredging borrow site, but the Corps did not encourage this alternative, given issues related to permitting.

A 50% preliminary design was put forth, using the 1997 footprint with continuous rock dike breakwater, and connecting the hydrology of the existing salt marsh (restored by ACF in 2005) to the four acre marsh proposed. However, given problems related to identifying sources of fill to create the marsh area, costs forced consideration of new alternatives. With viability of proposed open water borrow site questioned by the Corp, Thompson evaluated moving material from all possible dredged material beneficial use sites, but all remained cost prohibitive, with construction cost estimates for marsh creation nearly doubled.

Mr. Baya reported that at this point in the process, Ms. Swann entered into discussions with Corps of Engineers operational personnel, who identified a potential alternative source of sediments. Mr. Nate Lovelace of the Corps did cursory evaluations of material in close proximity to the borrow site identified by Thompson at a currently approved disposal area for material dredged from the Fowl River navigation channel. His findings showed high sand content and potential for use in marsh creation. With \$800,000 of State funds identified for

potential use in dredging the Fowl River navigation channel, a new idea was developed to use the suitable material from the Fowl River disposal site, avoiding issues related to the new borrow site, using State funds to dredge the FR navigation channel, and using the dredged material to replace material borrowed for marsh creation. Thompson analyzed the disposal area with Vibracore tests and found the material to be suitable. Ms. Swann credited Alabama State Senator Bill Hightower for the State funds to dredge the FR navigation channel and Mr. Lovelace and Carl Dyess for a concept that might work. MBNEP has applied for the funding to ensure that this project is implemented. A pre-proposal meeting with the Corps is currently scheduled.

Mr. Baya moved on to address further **Restoration in the Joe's Branch Watershed**. In review, he noted that the regenerative Step Pool Storm Conveyance (SPSC) on Westminster Village property was initially funded from Section 319 funds (match in large part by an ALDOT contribution). The project was completed in 2013 and survived the April, 2014 rain event with no major issues. In 2015, supplemental 319 funding was secured to undertake maintenance (completed in April, 2015) and to undertake a retrofit of Spanish Fort detention ponds across Hwy 31 at the headwaters of the SPSC. Mr. Baya reviewed the coordinating efforts behind the implementation of the SPSC and restored downstream wetlands. He listed partners that included ADEM, ALDOT, ADCNR, the cities of Daphne and Spanish Fort, GSA, MBNEP, Thompson Engineering, and Westminster Village and reported that the project had won a Gulf Guardian Award with first place in the Partnership Category.

MBNEP received a NFWF Grant of \$6,850,545 to restore and monitor documented problems in the Joe's Branch, D'Olive Creek, and Tiawasee Creek watershed and to monitor those restoration efforts. The target of Thompson's efforts and of this presentation was the Joe's Branch Subwatershed, largely situated in Spanish Fort with drainage into the City of Daphne. Mr. Baya displayed a slide showing proposed restoration targets that included a stormwater detention facility near the top of the SPSC, restoration of degradation in JB just downstream of the SPSC, JA on the back side of the strip mall at Hwys 98 and 31, J4-1 and J4-2 to the south and west, and a stormwater retention facility on the property of Westminster Gates. In March 2014, Thompson performed field assessments of Segments JA, J, and JB. Problems in those segments included:

- Bed/bank erosion in the middle reach of JA
- An exposed Daphne Utilities sewer pipe in the middle reach of JB
- Headcutting downstream of and impinging upon the restored wetland area in JB's upper reach.
- Stream erosion near a sewer manhole in the middle reach of Joe's Branch.
- A major active headcut in the upper reach of Joe's Branch.
- A sediment-filled detention basin at the top reach of Joe's Branch (Maury Court).

The April, 2014, rain event so exacerbated erosion/sedimentation problems, that the engineer's opinion of probable costs more than tripled from a 2013 OPC of \$1,058,000 to an October, 2014, OPC of \$3,486,000. NFWF authorized sufficient funding be shifted from D'Olive Creek to the Joe's Branch Watershed as a priority.

Restoration of JB, from headcutting impinging on the restored wetlands at the foot of the SPSC downstream approximately 1,700 feet, has been designated Project 2 and was bid in January.

North States Environmental won the bid and received a Notice to Proceed on April 8, 2015. Completion of this project is expected within three months.

Thompson is currently working on design for restoration of JA, J4-1, J4-2, and the stormwater management facilities. Since construction will require additional funding, Thompson is working to deliver an opinion of probable cost not later than July, 2015, so the NFWF can address the request for additional funding at its meeting in early August.

Ashley Campbell provided a brief overview of the **Restoration of Tiawasee Creek** being undertaken by the City of Daphne with \$450,000 of funding from CIAP as well as the MBNEP's NFWF allocation of \$550,000. The landowner donated the 26 acres to the City, who has received bids from engineering and design contractors for restoration and watershed enhancement. Construction is ambitiously targeted for October, 2015.

4. Discussion of a survey to assess the five-year Ecosystem Restoration Strategy

In order to track implementation of the five-year CCMP Ecosystem Restoration Strategy, Tom Herder notified PIC members that a survey would be developed and distributed so that implementation of any of the measures prescribed in the strategy could be tracked. Survey results will also inform NEPORT reporting required under the Government Performance and Results Act. The Community Action Committee is using surveys to track implementation of the five-year Technical Assistance and Capacity Building Strategy.

5. Old Business. NFWF Coastal Habitats Restoration Initiative Progress Report/Update

Ms. Swann reviewed the tasks funded under the Coastal Habitats and Restoration Initiative. Requests for Proposals are currently being developed for Task 1.1, high-resolution habitat mapping and spatial database development, and Task 1.2, SAV Mapping in Mobile Bay, the Mobile-Tensaw Delta, Mississippi Sound, and Other Coastal AL Waters.

Task 2, Watershed Management Planning for seven priority watersheds is currently underway. Of the seven watersheds set for planning:

- Development of a **Bayou La Batre** WMP is being managed by the Mobile County Soil and Water Conservation District's Randy Nicholas.
- The City of Foley will oversee development of a **Bon Secour River** WMP. Ms. Swann told Leslie Gahagan that a template RFQ has been prepared and is available to partners. Tom Herder will share it.
- With the City of Mobile hiring Goodwyn, Mills & Cawood to generate a long-range comprehensive plan for the City, to avoid duplication of effort (which would be significant) and the process of distribution and evaluation of Requests for Qualifications, it makes sense to hire GMC to develop a WMP for the **Dog River Watershed**. MBNEP intends to negotiate a contract with GMC that reflects efforts undertaken under the scope of the City contract.
- No entity has yet been determined to prepare a WMP for **Fish River**. Discussions of project management include the Baldwin County Soil and Water Conservation District and Weeks Bay.

- No determination of management has yet been made for WMPs for **West Fowl River** and **Wolf Bay**. Fish River and West Fowl River should be moving by the end of 2015, and even Wolf Bay could possibly be underway, with outstanding leadership provided by Wolf Bay Watershed Watch affiliates.
- Ms. Swann pointedly avoided discussion of the **Tensaw-Apalachee Watershed**, which will require special consideration.

6. New Business

Ms. Swann announced that the City of Mobile had received a \$386,000 Outdoor Recreation Legacy Grant from the National Park Service to build the first leg of the Three Mile Creek bicycle trail from MLK Avenue to Tricentennial Park. The grant will fund a 10-foot wide pervious bicycle trail, energy-efficient LED lighting, and a fitness/circuit course adjacent to the trail.

She also made note of the recent hiring of Amy Newbold as the new MBNEP Deputy Director through an interagency personnel agreement with the EPA Region IV.

7. Adjourn

With no other new business, Ms. Haner asked for a motion to adjourn. Sam St. John made the motion, which was seconded by Carl Ferraro and unanimously approved at 3:50.