Mobile Bay National Estuary Program
Government Networks Committee Meeting
September 20, 2019
Original Oyster House
3733A Battleship Pkwy
Spanish Fort, AL 36527
8:00 am -9:30 am

Agenda

Meeting Objectives:

a) Provide status of NFWF GEBF & RESTORE funding and CCMP updates
b) Update comprehensive litter abatement program
c) Review hydrogeologic findings at Plant Barry

1. **Welcome & Introductions**
   Mobile County Commissioner Merceria Ludgood

2. **Review and approval of minutes**

3. **Old Business**
   a. NFWF GEBF/RESTORE update – Chris Blankenship, ADCNR
   b. Watershed Planning Update – Christian Miller, MBNEP

4. **New Business**
   a. Comprehensive Litter Abatement Program for Coastal Alabama – Don Bates, Osprey Initiative
   b. Plant Barry Hydrogeologic Conditions Summary, Marlon Cook – Cook Hydrogeology
   c. Other Business

5. **Adjourn**

Minutes

In attendance: Joseph Abston, Washington County Commission; Matt Anderson, City of Mobile; Blankenship, ADCNR; Marlon Cook, Cook Hydrogeology; Newton Cromer, City of Saraland; Terry Downey, City of Bayou La Batre; Joe Faust, AL House of Representatives; Kae Hamilton, Town of Perdido Beach; Merceria Ludgood, Mobile County Commission; Chris Plymale, EPA Region 4; Bill Pucket, Alabama Soil & Water Conservation Committee; Rickey Rhodes, SARPC; Elizabeth Roney, US Rep. Bradley Byrne's Office; Dennis Sullivan, City of Chickasaw; Chris Thomas, EPA Region 4; John Valentine, DISL; Margie Wilcox, AL House of Representatives; Tom Williams, City of Satsuma; Kirby Lathan, City of Saraland; Nicole Taylor, SARPC; Howard Smith, City of Semmes; Lynn Battle, ADEM; Dob Bates, Osprey Imitative

MBNEP Staff: Roberta Swann, Bethany Dickey, Christian Miller

Takeaways

- Amy Hunter is the new primary point of contact for all BP-related funding questions. She can be reached at the ADCNR State Lands office 251-621-1216
- A need for watershed coordinators exists in both Mobile and Baldwin counties in order to speed implementation of recommended actions developed as part of watershed management plans.
- A host of partners in Coastal Alabama is at the forefront of development and implementation of an innovative and comprehensive approach to litter abatement. The model being developed in coastal Alabama is being held up as an example by US EPA at the national level.
- A review of the hydrogeologic conditions indicates that closure of the Plant Barry ash pond by capping in place can be an effective strategy, but some additional engineering and design questions remain in order to ensure encapsulation will be effective.

The meeting was called to order at 8:16 AM

Introductions were conducted and minutes from the previous meeting were reviewed. A motion to accept the minutes was made by Kirby Latham and seconded by Tom Williams.

Chris Blankenship gave an update for the Dept. of Conservation and Natural Resources:

- NFWF GEBF – Six projects have been presented for funding and will go before their board for approval in November. Many of these projects were identified and prioritized as part of the watershed management planning process.
- RESTORE Council – Keri Coumanis has left her position as the executive director of the Alabama Restore Council. Amy Hunter, with ADCNR, is the current point of contact for any BP spill-related project.

- NRDA – Restoration plan 3 was released at the annual meeting. Several projects include the acquisition of the western end of Dauphin Island, acquisition of land along the Perdido River north of I-10. Construction projects on Bayfront Park in south Mobile County. Several bird stewardship projects are also included. Projects should be approved by Dec 13.

Next Christian gave an update on coastal watershed plans:

- Watershed plans are currently under development for: Wolf Bay, the Western Shore of Mobile Bay, and the Gulf Frontal (Little Lagoon/Perdido Pass) watersheds. The bulk of the plans to date have been funded through NFWF but going forward RESTORE funding will be funding the bulk of the remaining work.
- Next plans to get underway is an update to the D'Olive plan and will be getting underway in the Mobile Tensaw Delta and Fly Creek/Eastern Shore of Mobile Bay.
- Concurrently, Marlon Cook will be developing baseline watershed assessments in selected watersheds where critical data is needed to feed into the watershed planning effort.
- Work on the Western Delta and Eastern Delta complexes of watersheds will require data from Marlon's baseline assessments in order to feed into those watershed plans, so it is anticipated those efforts will get underway in 2020.
- The NFWF-funded cultural resources assessment has been recently completed for the bulk of the shoreline along Mobile Bay and Portersville Bay across Mobile and Baldwin counties. This covers the area from mean high tide out 1,800' from the coastline. These surveys are necessary for any shoreline projects and oyster aquaculture operations. The report has been disseminated to all the regulating agencies and is also available on the NEP's website. http://www.mobilebaynep.com/images/uploads/library/SubmergedCRASurvey%20Final%20April%202019.pdf
- Baldwin County has decided not to fund the Watershed Coordinator position for the coming year. In order to implement the recommendations in these plans there is a need for dedicated positions to push those efforts forward. Currently, several of the watershed plans recommend establishment of these positions to drive implementation. Roberta said that ideally these positions would be housed outside, but supported by, the NEP. Merceria stated if it is desired that this position be house at the County then a letter of request should be sent to the Mobile County Commission and she would take that request to the Environmental Dept. Roberta stated that the NEP simply doesn't have the capacity to serve as the primary implementing body for all the watershed plans. These plans were developed as tools for the communities and there needs to be some buy-in from those communities in order to move these plans forward. Rickey stated that SARPC would be happy to help coordinate this effort.

Next, Don Bates with Osprey Initiative talked to the group about a comprehensive litter abatement program for south Alabama.

- Started as a small program, through an EPA Gulf of Mexico Program grant in partnership with MBNEP to develop a comprehensive approach to reducing litter impacts in the Three Mile Creek Watershed. This has since expanded to include multiple partners and municipalities combating similar litter issues across the southeast.
- The unique aspect is the approach. Rather than a reactive approach (litter clean-ups) this is working on a proactive approach using tactical litter traps to trap litter near its source and development of implementable plans for litter abatement. The future includes more sustainable concepts to utilize data to raise awareness and educate and development of options for recycle and reuse of captured materials (eg use aluminum captured in traps to build new traps).
- Currently there are 13 sites with litter traps in Mobile and Baldwin counties in the following watersheds: Three Mile Creek, Dog River, D'Olive, and Bon Secour.
- There are four keys to a successful project: must have a vision, cities/counties must be committed to that vision, community engagement, and a committed contractor that deliver
- Project has been ongoing in the Three Mile Creek Watershed for over a year now. To date have removed over 8,000 pounds, or 5,085 cubic feet, of litter. This consists predominantly of Styrofoam and plastic single-use food/drink containers.
- This process has resulted in a multi-faceted approach that includes: litter traps, tactical cleanups, data collection, consulting, and materials handling. Working with EPA Protocols for monitoring litter allows a more comprehensive approach to dealing with the problem. It allows you to identify the source of the litter and work towards reducing it at the sources.

Next Marlon Cook presented the Plant Barry Hydrogeologic Conditions Summary

- The plant sits on a bend in the Mobile River in the northeastern part of Mobile County. There are two primary options to close the ash pond: cap in place or remove to an upland, lined landfill. Marlon has reviewed all the publicly available documents from Alabama Power, the Mobile Baykeeper report, and other groundwater/geologic well reports from the surrounding area.
- There are three primary hydrogeologic issues related to the coal ash pond at Plant Barry that were the focus of this report: **First**, is the material isolated from the surrounding surface-water and groundwater environment (meaning that hydrogeologic characteristics surrounding and underlying the coal ash pond will keep it and its chemical constituents from migrating beyond the pond)? **Second**, will future migration of the Mobile River channel threaten the coal ash pond? **Third**, will combinations of rising sea level, upstream flooding, and severe tropical storms cause catastrophic flooding that could potentially compromise the integrity of the coal ash pond?

- There are two primary geologic units in the Plant Barry area. These two soil layers are sources of groundwater, providing domestic and irrigation water supplies for the surrounding areas.
    - The Miocene undifferentiated, which is about 600 feet thick and composed of sand and clay.
    - Alluvial deposits of Holocene age, about 150 feet thick, composed of coarse-grained sand, with gravels and clay.
- Toxic constituents, such as arsenic and cobalt, found in coal ash are mobilized only when coal ash is saturated with water. Contamination of the groundwater under the ash pond occurs after these toxins are 1.) Dissolved in water, and 2.) Subjected to the pressure of the saturated ash and water, pushing these contaminants downward into groundwater.
- Tests were done on the clay layer that lies underneath the ash pond. Although it is not consistent and has some pockets of sand/silty areas and is 4-24' thick. It does not totally exclude water from moving through it, but it is an effective aquiclude (it has some protective properties).
- A network of monitoring wells surrounding the coal ash pond shows that all groundwater in the area immediately surrounding the pond is flowing slowly eastward towards the Mobile River. Water levels within these wells also strongly suggest the clay layers form an effective confining unit between the coal ash pond and the underlying groundwater.
- Tom Williams asked whether or not removing the water would make a difference. Marlon said removing the water is the most important aspect of the closure plan, since the toxic constituents are only mobilized when the ash is saturated with water keeping the ash dry would prevent the toxins from being mobilized. Removing the water would also significantly reduce the downward pressure that is responsible for pushing the contaminants downward and through the clay layer into the groundwater.
- Plant Barry's coal ash pond is located on a bend of the Mobile River, which is an old-age meandering stream with features like cut banks and oxbow lakes indicating that the river channel has migrated over geologic time. The ash pond is located on a point bar with a cut bank on the opposite side of the river. This means that 1.) The river channel is migrating eastward and away from the ash pond, and 2.) Any potential relocation of the river channel would happen over geologic time and would be unlikely to impact the ash pond.
- The dike that surrounds the ash pond was constructed to withstand a 1,000-year, 24-hour rainfall event. Combinations of future climate factors including rising sea level, a major upstream flood, and a significant tropical storm could result in a catastrophic flood event that may potentially compromise the coal ash pond. In the future, combinations of high tide with higher sea level, upstream flooding, and a major tropical system could cause a catastrophic event at Plant Barry. To date, no modeling has been performed to simulate these multiple flood scenarios to estimate river levels and flow velocities at Plant Barry. These simulations would inform decisions related to the closure of the coal ash pond and guide engineering and design plans to ensure a more robust closure plan accounting for potential impacts from extreme flooding conditions. Marlon has recommended that Alabama Power conduct this modeling in order to improve the design of their encapsulation of the ash.

- Marlon stated that he feels confident that based on the hydrogeologic characteristics that capping in place can be effective, but the questions lie in the engineering of the encapsulation and dike/slurry wall structures.
- Marlon also stated that he would be happy to present this information on an as-needed basis.

Meeting adjourned at 9:34 AM