



**Mobile Bay National Estuary Program
Government Networks Committee
May 27, 2021, 8:00 am – 9:30 am**



Zoom Virtual Meeting

<https://disl.zoom.us/j/95737463692?pwd=T3FzTEEx1YVY5S1Z2dVUrR0xiWXJNz09>

Meeting ID: 957 3746 3692

Passcode: 847026

Dial in

+1.929.436.2866 (New York)

+1.301.715.8592 (Washington DC)

Agenda

Meeting Objectives:

- a) Provide status of NFWF GEBF & RESTORE funding
- b) Review status of watershed planning in coastal Alabama
- c) Discuss potential improvements in wastewater treatment

1. Welcome and Introductions

GNC Co-Chairs:

Commissioner Merceria Ludgood, Mobile County

Commissioner Billie Jo Underwood, Baldwin County

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) Optimizing Wastewater Treatment – Chris Thomas, EPA

5. Adjourn

Minutes

In attendance: Billie Jo Underwood, Baldwin County Commission;; William Puckett, Alabama Soil & Water Conservation Committee; Joe Davis, Baldwin County Commission; Scott Bannon, ADCNR-MRD; Margie Wilcox, AL House of Representatives; Shannon McGlynn, ADEM; Jeff Collier, Town of Dauphin Island; Chris Blankenship, ADCNR; Chris Thomas, EPA Region 4; Brendan Held, EPA Region 4; Patty McCurdy, ADCNR-State Lands; Diane Burnett, SARPC; Newton Cromer, Saraland City Council; Mike McMillan, City of Spanish Fort; Casey Rains, City of Spanish Fort; Matt Anderson, City of Mobile; Sandy Stimpson, City of Mobile; Ralph Hellmich, City of Foley; Hank Burch, ADCNR; John Valentine, DISL

Staff: Roberta Swann, Bethany Hudson, Christian Miller

Takeaways

- The State will be receiving proposals for a RESTORE-funded water quality program that will focus on wastewater and stormwater infrastructure upgrades. Proposals should be received sometime in the fall.
- US EPA, working with the State of Alabama, has implemented an optimization program for municipal wastewater treatment facilities. The program seeks to reduce operating costs associated with wastewater treatment by working with local operators to change management practices that reduce energy usage and result in improve effluent quality.

Meeting was called to order at 8:00 a.m.

Commissioner Underwood made a motion to approve the minutes from the last meeting which was seconded by William Puckett

Commissioner Blankenship gave an update from the State on the status of Deepwater Horizon-funded projects.

- In the process of finishing regional (Gulf-wide) NRDA plan which is currently out for comment to be done July/Aug. Projects related to oysters, bird projects that include acquisition of habitat in Ft. Morgan, and some Dolphin/Marine Mammal related work.
- RESTORE Council funded priorities list was approved in April. There is a Water Quality Program that will include ~\$35 million to pay for primarily sanitary sewer and stormwater related projects – included infrastructure upgrades. Project submittals will be requested in the Fall. There will be a matching requirement (~25%). Looking for ways to leverage that funding with GOMESA and other sources.
- Deposits will be made to the State via NRDA and RESTORE through 2031. NFWF has already completed all payments to the State (most of this funding has been obligated).

Next up was update on watershed planning

- Western Shore WMP is undergoing an internal review process and will be released for public comment soon. Lots of shoreline related projects to include a comprehensive shoreline management plan.
- Currently under development: Gulf Frontal, D'Olive Update. Both plans should wrap up late summer/early fall. MTA Delta looking to wrap up towards the end of the year with a large outreach event being scheduled for August. Eastern Shore (Fly Creek) and Dauphin Island are both ongoing.
- Remaining Plans: Marlon Cook is working on gathering baseline data in several of the remaining watersheds. This will not be needed on the Western Delta so those watersheds will likely be the next ones to get started. The Eastern Delta watersheds in Baldwin County will require Marlon's efforts before those planning efforts can get up and running. Grand Bay Swamp and the Perdido complex would be the other two watershed complexes to complete plans for.
- WMP updates are available on the MBNEP website.

Next, Christian gave an overview on pathogen impairments and management actions in Mobile and Baldwin counties.

- There are over 20 stream segments with listed impairments for pathogens and organic enrichment in Mobile and Baldwin counties.
- This is due to failing sanitary sewer and septic infrastructure, livestock, domestic animals (esp in urban areas), also wildlife and “background”- we found in West Fowl River that the natural “background” level of pathogens may exceed the allowable limit for shellfish harvesting and aquaculture.
- Watershed planning is helping to better define the true scope of the problem.
- ADEM and Mobile and Baldwin County SWCDs have done a lot of work in relation to septic tank maintenance for homeowners. From 2015-19 they held 48 workshops with a total of 1264 attendees. 1051 septic pump-outs and 16,561 certified inspections were completed across both counties.
- NRCS is also working with landowners to install agricultural BMPs including exclusion fencing, alternative water sources, and wastewater treatment projects.
- There has been an effort to upgrade sanitary sewer infrastructure. RESTORE is funding over \$60 million in wastewater infrastructure upgrades across both counties. This included projects in Bayou La Batre, Dauphin Island, City of Mobile, Chickasaw, Fairhope, and Orange Beach. MAWSS is in the process of significant infrastructure upgrades in both the Dog River and Three Mile Creek watersheds (>\$100 million).
- Monitoring through AL Water Watch, Mobile Baykeeper, and the County Health Dept is working to make the public aware of the status of water quality related to pathogens on both sides of the Bay.

Next Chris Thomas and Brendan Held with EPA Region 4 gave an overview of a wastewater optimization program

- Chris said the EPA excited about this program because it saves municipalities money and reduces nutrient effluent. The focus on this program has been working with plant operators to change the way they manage in order to reduce capital costs and maximize the quality of the effluent. It relies on the expertise of the plant operators.
- Wastewater treatment requires a lot of energy and may account for 25-30% of a municipality’s total energy budget. Optimization is a low-cost opportunity to reduce costs while improving effluent quality.
- This is a voluntary, non-regulatory program but has resulted in real benefits in cost savings to municipalities in Alabama (see table below). It represents a significant win to the environment (receiving waters) and local budgets.

Facility	Cost Savings (\$/yr)	Energy Savings (%)	Energy Savings (kWh/yr)	Effluent Nitrogen Reduction (lbs/yr)	Effluent Nitrogen Reduction (%)	GHG Reduction (tons CO2e/yr)
Alexander City	\$94,000	25%	918,000	-	-	736.7
Fort Rucker	-	34%	385,200	21,700	30%	309.1
Muscle Shoals	\$11,000	27%	357,700	33,000	33%	287.0
Pell City	\$14,000	24%	129,000	101,000	71%	103.5
Prichard	\$32,000	25%	415,200	26,000	24%	333.2
Sheffield	\$9,000	20%	202,000	45,000	75%	162.0
Wetumpka	\$85,000	27%	795,700	16,100	40%	638.6

- Program began in Tennessee in 2011 to promote optimization to improve effluent quality and reduce operating costs. It's non-regulatory but coordinates with local state permitting and enforcement agencies. Program resources are limited so some pre-screening is required in order to ensure the program can be successful at a given facility.
- Region 4 receives some funding to support the program. In 2016 Tennessee and Alabama received grant funding from the Dept of Energy to support the program. The goal is to increase capacity at the state level in order to undertake this program.
- EPA uses compliance database to find facilities that currently have extra capacity and have excess nitrates in their effluent. Satellite imagery is utilized to analyze systems, specifically aerator capacity.
- Tend to avoid plants with recent compliance issues, undergoing major upgrades, or with recent major staff changes.
- Once a site is chosen to undergo optimization technical assistance is provided to the facility and information is shared by the plant in order to facilitate development of recommendations. Educational workshops are also part of the process.
- Began partnership with ADEM in 2014. Scaled up activities in 2016-18 with Dept. of Energy funding. To date have visited 45 facilities, prepared 31 assessment reports, and conducted six workshops.
- Total Measurable Results (8 facilities)
 - 296,000 lbs/yr reduction in total nitrogen (avg 50% reduction)
 - 3.2 million kWh/year reduction in electricity use (avg 25% reduction)
 - \$231,000/yr energy cost savings (avg 25% reduction)
- Total Opportunities Identified (31 facilities)
 - 1.8 million lbs/yr reduction in total nitrogen (avg 35% reduction)
 - 16.9 million kWh reduction in electricity use (avg 20% reduction)
 - \$1.5 million in energy cost savings (avg 20% reduction)
- Going forward EPA is continuing to support partner facilities and develop case studies. Also working with the North Carolina as they stand up their own program. They also provide support for Tennessee, Kentucky, and Alabama and rural water organizations.
- For more information about wastewater plant optimization contact Chris Thomas (Thomas.Chris@epa.gov) or Brendan Held (Held.Brendan@epa.gov).

Meeting adjourned at 9:05 A.M.