Mobile Bay National Estuary Program Science Advisory Committee Meeting

August 19, 2022, 10:00 am – 12:00 pm
Virtual Meeting

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Agenda

Meeting Objectives:

a) Discuss current/future externalities associated with ongoing projects
b) Discuss development of monitoring framework for ongoing projects
c) Develop plan for SAC contributions to the MBNEP over the coming year

1. **Welcome**
   SAC Co-Chairs:
   Dr. John Lehrter, Dauphin Island Sea Lab, Dr. Amy Hunter, ADCNR-DWH Restoration

2. **Review and Approval of Minutes**

3. **Updates and Presentations**
   a) Conversation about potential impacts associated with ongoing projects, brief presentations by **Dr. LaDon Swann, MASGC** and **Dr. Hunter** followed by group discussion
   b) Open discussion on methods to develop monitoring framework for current/future MBNEP-funded projects—**Dr. Partyka, MBNEP**
   c) Next steps for setting course of SAC activities over the coming year—**Drs. Lehrter and Hunter**

4. **Announcements**

5. **Adjourn**

Mobile Bay National Estuary
Program Science Advisory
Committee Meeting Zoom Meeting

August 12, 2022

The Mobile Bay National Estuary Program Science Advisory Committee was established to bring area experts together to provide advice, guidance, and recommendations to ensure that MBNEP activities will be conducted in a scientifically relevant and rigorous manner.

In attendance:
Chris Anderson, Cassie Bates, Alex Beebe, Don Blancher, Ronald Bond, Mary Kate Brown, Dottie Byron, Newton Cromer, Brian Dzownkowski, Clark Gerken, Meg Goecker, Patric Harper, Amy Hunter, Kathryn Keating, Cade Kistler, John Lehrter, Fred Leslie, Matt Love, John Mareska, Eric Schneider, LaDon Swann, Tim Thibaut, Will Underwood

MBENP Staff: Missy Partyka, Roberta Swann

This meeting was held remotely due to the COVID-19 pandemic.

Dr. John Lehrter called the meeting to order at 10:05 CST. Minutes from the May 20th meeting were shared via email. A motion to accept the minutes was made by Mary Kate Brown and seconded by Dr. Missy Partyka.

Dr. Lehrter opened with the meeting with a description of the day's agenda and Dr. Missy Partyka explained the plan to have a discussion related to monitoring activities related to restoration projects beginning with several presentations related to the Graveline Bay marsh restoration project on the south side of Dauphin Island.

Dr. LaDon Swann, MASGC presented on concerns from off-bottom oyster farmers related to sediment plumes associated with the placement of dredged materials in Graveline Bay.

Key takeaways:

- Three separate restoration projects in the Mississippi sound have raised concerns with oyster farmers, particularly concerned about mortalities perceived to be associated with dredging operations.
- Questions about whether the timing and location of turbidity sampling are adequate for understanding how sediment plumes migrate under different weather/tide conditions.
- Shared drone footage showing how plume reaches down the shore toward an oyster farm.
- Open ended questions about the potential health implications associated with dredged materials, the consideration of oyster farms in restoration planning and permitting, and how RESTORE-funded projects can be adaptively managed.

Dr. Amy Hunter, ADCNR spoke on the state's perspective related to this restoration project and other similar projects.

Key takeaways:

- Restoration project such as the one in Graveline Bay are of vital importance to resource protentional and management in the Mobile Bay area
- The placement of sand/sediment is critical for protecting the valuable marsh from the impacts of winter storms
- Sediment plume mitigation is in place for this project and all projects where dredging or sediment placement is required
- This project used heavier sands with less fines, however fines may escape on the sides where sediment curtains are not in place

Dr. Don Blancher, Moffat & Nicholl followed by sharing a presentation on monitoring associated with Lightning Point restoration activities and perceived impacts to oyster operations.

Key takeaways:

- Shared paper by Suedel et al., 2015 that showed through experiments potential impacts on oysters from dredging activities. Oysters increase led to recommendations to monitor for changes of 50 NTU above background. That threshold would trigger stop of dredging operations.
- Continuous monitoring sondes placed around restoration sites, no significant changes caused by dredging, but satellite data did track large wind-driven sediment plumes during period of oyster die-off
- Simultaneously, sondes indicate that salinities in the area dropped to ~1 psu while temperatures reached >25 °C, likely that these factors were contributors toward die-off and not turbidity

What followed was a general discussion about monitoring needs, permits, and the roll of the SAC during the public comment period of project initiation, and the SAC's potential goals for the coming year.

Key takeaways:

- A lot of data are being collected in association with restoration projects, but it is difficult to access. Would be helpful to be able to analyze those data to determine what holes might exist
- A joint PIC/SAC meeting is needed to help PIC understand the data needs of the scientists and the SAC to understand how the permitting process works and potential limitations
- May need to choose a couple of sentinel projects/indicators to be used for understanding the current state of the bay and the potential impacts/successes of restoration projects
- Important to hammer out monitoring and data needs at the beginning of a project and to make sure those needs are in line with the purpose/goal of the project(s)

Motion to adjourn the meeting called for by Mary Kate Brown, seconded by Dottie Byron. Adjourned at 12:02