Mobile Bay National Estuary Program Science Advisory Committee Meeting

May 21, 2021, 10:00 am - 12:00pm
Zoom Virtual Meeting

Agenda

Meeting Objectives:

a) Welcome new members and updates from last meeting
b) Update on State of the Bay and next steps
c) Discuss modeling needs from Decadal Study
d) Conduct mock-scenario for Stressor Matrix

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) Updates on cross pollination efforts with PIC—Dr. Missy Partyka and Jason Kudulis, MBNEP
   b) State of the Bay: Updates and plans for next steps—Tom Herder, MBNEP and Dr. Lehrter, DISL
   c) Modeling outputs from the Decadal Study: What are your needs?—Dr. Lehrter, DISL
   d) Mock-Scenario: Sewage line rupture Dog River watershed
      - Scenario overview and instructions—Dr. Partyka, MBNEP
      - Populating fields for Rapid Response Stressor Matrix—SAC membership

4. **Adjourn**

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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:
Becky Allee, Chris Anderson, Katie Baltzer, Don Blancher, Dottie Byron, Marlon Cook, Bridget Cotti-Rausch, John Curry, Dennis DeVries, Brian Dzwonkowski, Rich Fulford, Clark Gerken, Patric Harper, Steve Heath, Joie Horn, Amy Hunter, Stephen Jones, Latif Kalin, Kathryn Keating, Bethany Kraft, Meredity LaDart, Julien Lartigue, John Lehrter, Fred Leslie, Zhilong Liu, Matthew Love, John Mareska, Behzad Mortazavi, Autumn Nitz, Scott Phipps, Greg Pierce, Steve Sempier, Lukas Snow, Eric Sparks, Susan Summerlin, Tim Thibaut

MBENP Staff: Jason Kudulis, Roberta Swann, Missy Partyka, Tom Herder

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

Dr. John Lehrter called the meeting to order at 10:04 CST. Minutes from the August 12th meeting were shared via email. Dottie made a motion to accept the minutes. Tim Thibaut seconded.

Dr. Hunter began by recognizing new members of the SAC by name and affiliation:

Jason Kudulis and Missy Partyka gave an overview of the **cross-pollination efforts between the PIC and SAC** emphasizing specific goals/objectives and the timelines associated with them.

Key take-aways include:

- Multiple living shoreline projects conducted in the region monitor for different parameters. Some of these parameters are required by USACE permits, others are collected for scientific purposes.
- A matrix of current/past projects, and associated monitoring parameters, was created and circulated with both PIC and SAC membership. Discussions were had about improving consistency across projects.
- There is agreement that there are core parameters that should be monitored across projects.
- There was interest expressed by USACE members about creating standardization in the monitoring requirements in permitting so that project leads understand what to expect and can budget accordingly.

Tom Herder gave an overview presentation on the previous **State of the Bay** reports followed by Dr. Lehrter discussing plan for the next version.

Key take-aways from the presentation include:

- State of the Bay (STB) used to be reported out every 5 years as requirement under 2001 CCMP
    - >1,000 hard copies distributed through the Mobile Press Register

- Report broken out into 5 priority issues (human impacts, habitats, living resources, water quality, community involvement); 3-5 focus questions or indicators per issue
    - Primary use of earlier versions was education and public involvement, meant to tell the story of restoration efforts
- There are questions about whether we need a full CCMP update for 2023 or whether a STB report would suffice for updates on current status/trends and allow for current CCMP extension
- A new STB could also be used to flesh out a conceptual model of the Bay and would serve the DISL decadal study in the process.
    - DISL is working on a work-flow to get buy-in from scientists outside of MBNEP to contribute data to the ALCoE. These data would help serve the conceptual models.
    - New indicators may be needed, building on previous efforts, to incorporate socioeconomic values
- Plan is being put in place to host a large workshop this coming fall (after Oct. 1) to determine utility of previous indicators and potentially agree to new ones to best tell the story of the restoration efforts in the Bay.

Next Dr. Lehrter gave a presentation on the status of the decadal study **"Modeling outputs from the Decadal Study: What are your needs?"**

Key take-aways from the presentation include:

- Decadal study is working to understand how current trends of decline in several key species (blue crab, speckled trout, and oysters) relate to historical and current abiotic factors
- Several mathematical models have been/are being created to evaluate environmental change, species' thresholds, resource utilization, and viability of projects given multiple climate scenarios.
    - E.g., cross-section model of the Bay is able to show impact of ship channel on salinity gradients in Bay and can indicate where oyster restoration projects are less likely to succeed moving forward
- Study group wants to understand the utility/need of the models and associated data for members of the SAC
    - E.g., do we want ecosystem forecasts for rapid response? Models that support current watershed management plans? Hydrodynamic models of the ocean-bay interface? What about training or long-term planning.
- There is understanding that these products need to be accessible and have utility for partners, scientists, and interested members of the public.
    - Work is being done with computer scientists to move models into a virtual space, available to the public

This presentation was followed by dry run of the **Stressor Evaluation Matrix** by Dr. Partyka using a recent sewage spill as the primary stressor.

Key take-aways include:

- The Stressor Evaluation Matrix is meant to serve as a rapid response tool that will allow the MBNEP to rapidly solicit feedback from SAC during emergent conditions

- A “mock” scenario was described where several millions of untreated sewage spilled into Perdido Bay and threatened ES in the area
- SAC members were given a series of survey questions to determine which components of the spilled material were of greatest concern, which habitats were at greatest risk, CCMP values would be most impacted for a given habitat
    - Survey was conducted via mentimeter.com so SAC member could see their results populated live
- Results of the survey will be used to compile the key parameters of the Stressor Matrix that will then be sent to SAC members in order to prioritize/rank areas of concern

An announcement was made by Patrick Harper about upcoming inter-agency coastal regulations program meeting. Public notice of change to General Permits going out in the coming week. GP10 is being removed and will be covered under National Permits.

At 11:59 am, Tim Thibaut made a motion to adjourn. Fred Leslie seconded. Meeting Adjourned.