Mobile Bay National Estuary Program Science Advisory Committee Meeting

April 6, 2023, 10:00 am – 12:00 am
Zoom Virtual Meeting

Agenda

Meeting Objectives:
   a) Review findings of the 2022 stressor matrix and the 20 questions input session from Bays and Bayous
   b) Review the timeline for the upcoming CCMP rewrite process and SAC objectives therein
   c) Introduce and discuss rewrite of *State of the Bay* document

1. **Welcome Back**
   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) Introduction of Blair Morrison, new MBNEP Science and Monitoring Program Lead —**Dr. John Lehrter, Dauphin Island Sea Lab and Dr. Amy Hunter, ADCNR-DWH Restoration**
   b) Summary of 20 Questions Feedback at the 2022 Bays and Bayous Symposium – **Blair Morrison, MBNEP**
   c) Recap of the 2022 Stressor Matrix, what has changed over the past 10 years and what does that mean for us? – **Dr. Missy Partyka, Auburn/MBNEP**
   d) Overview of the CCMP rewrite timeline, *State of the Bay* as a stepping stone – **Roberta Swann, MBNEP**
   e) Introduction to the *State of the Bay* document and feedback on the rewrite process– **Dr. Missy Partyka, Auburn/MBNEP** and **Blair Morrison, MBNEP**

4. **Announcements**

5. **Adjourn**

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:
John Lehrter, Amy Hunter, Missy Partyka, Dottie Byron, Don Blancher, Patric Harper, Fred Leslie, Cassie Bates, Brian Dzwonkowski, Chris Warn, PJ Waters, Tim Thibaut, Scott Phipps, John Mareska, Katie Baltzer, Stephen Jones, Alex Beebe, Ronny Bond, Ron Baker, Steve Heath, Kevin Calci, LaDon Swann, Dennis DeVries, Julien Lartigue

MBNEP Staff: Blair Morrison, Jason Kudulis, Roberta Swann

This meeting was held remotely via Zoom.

Dr. John Lehrter called the meeting to order at 10:07 CST. Minutes from the August 19th, 2022 meeting were shared via email prior to the meeting. A motion to accept the minutes was made by Dr. LaDon Swann and seconded by Dr. Missy Partyka

John opened the meeting with a description of the day's agenda and introduced Blair Morrison, the new Science and Monitoring Program Lead at MBNEP, to the members of the SAC.

Blair Morrison, MBNEP presented a report on feedback collected from attendees of the 2022 Bays and Bayous conference. Feedback was collected at the "20 questions activity" on the second day of the conference.

Key takeaways:

- Survey had almost 200 participants – around 40% of Bays and Bayous attendees
- Across multiple questions, attendees favored proactive management decisions, rather than reactive ones.
- Intertidal Marshes and Flats, Oyster Reefs, and Freshwater Wetlands were ranked as the habitats experiencing the most stress – a finding that is consistent with past stressor matrix results and target areas identified in the CCMP. Several comments discussed the probability that this result is likely skewed by the general makeup of the attendees for Bays and Bayous, as evidenced by the large proportion of intertidal marsh and oyster talks in the conference program.
- Climate change and associated hazards was ranked as the greatest emerging threat to the coastal environment, followed by development pressures.

Response to the report was favorable overall, with questions about the broader use of the data and final format of the collected information (grouping or splitting water quality parameters with contaminants). It was reiterated that the data is not being used as a formative input for the new CCMP writing process, but served as a general perception gathering exercise.

Dr. Missy Partyka, Auburn presented the 2021 Stressor Matrix Data and Summary Report and discussed how opinions have changed over the past decade.

Key takeaways:

- The 2021 matrix activity had a lower response rate than the 2011 matrix; 18 folks responded in 2021 compared to 29 in 2011. There were 3 overlapping participants.
- Streams and Rivers, Intertidal Marshes and Flats, and Freshwater Wetlands remain habitats of elevated concern. Negative impact perceptions rose among Oyster Reef and Pine Savannah ecosystems in the 2021 cohort. Biodiversity, water quality, and wildlife habitat remain the ecosystem services most vulnerable to stress. Land use change, fragmentation, sedimentation, and climate variability are the highest listed stressors.
- The ecosystem service of water quality enhancement was seen as being under greater threat in 2021 than in 2011; climate variability and sea level rise stressors were also perceived to be greater in 2021 than in 2011.
- Data analysis methodology was changed from an averages analysis in 2011 to a median analysis in 2022. This adjustment was made because answers to the survey are discrete values -not continuous- so the median is a more appropriate approach to finding the central tendency of the data.
- Some questions were raised about confidence in rankings for cells – Missy clarified that participants were asked to only fill in cells that they felt confident contributing to/ were within their expertise. Just Cebrian suggested providing quantifying error bars on either side of the median values.
- Missy asked SAC members to be looking out for an email from her to review the stressor matrix report and provide comments.

Roberta raised a question to the SAC about if this exercise in its current state was scientifically rigorous/ hold up to science standards. Steve Jones brought up an ongoing GSA study investigating deposition of organic vs. inorganic sediments and contaminants; this discourse brought up questions about incorporating emerging issues into the stressor matrix and future report-outs to the SAC. Dennis DeVries mentioned that responses to the matrix will always have a level of subjectivity to them because it relies on opinion, but that the data framework as a whole was scientifically sound. Missy brought up that some respondents had questions about the time component to the stressor matrix; some stresses are happening currently and we're seeing the impacts in real time, whereas some have not happened yet, but will likely have large impacts. She suggested that a likelihood vs impact parameter (as used in the Bays and Bayous 20 questions report) or a current vs. future tense parameter be added to the stressor matrix. John stressed that there are specific caveats that are missing from the survey such as the intricacies of nutrient inputs (fisheries enhancement vs hypoxia) and the pattern of drought years vs wet years in between the 10 survey periods; he suggested that these details be explored in the discussion of the report on these data.

Roberta Swann, MBNEP presented an overview of the CCMP rewrite timeline, how the *State of the Bay* is a stepping stone for the new CCMP, and the SAC's role in the MBNEP management conference.

Key takeaways:

- Discussions with EPA regional and headquarters officials indicated that the MBNEP should pursue a full CCMP rewrite process rather than a CCMP update
- The NEP follows a collective impact model, is based in science, is a partnership organization, is funded by US EPA/State of AL/Counties and Municipalities, is a multisector conference, and is guided by the CCMP.
- The SAC was created in 2006 and the first *State of the Bay* was published in 2008
- The Biological Condition Gradient (BCG) was introduced in 2009 and the stressor matrix was first implemented in 2011

- This year, we are building the foundations for the third CCMP – synthesizing WMPs, evaluating the current CCMP update, updating bylaws, and laying groundwork for publishing an updated *State of the Bay* in spring of 2024.
- New CCMP anticipated completion date is September 30th, 2025
- The purpose of the SAC within the MBNEP Management Conference is to: assess trends, develop frameworks, provide technical advice, identify opportunities for public participation, identify projects, assist with planning, and cooperatively identify tasks for MBNEP.
- The CCMP'S Estuary Status and Trends Strategy involves: monitoring conditions, communicating conditions, forecasting conditions and informing future monitoring/communicating actions

Steve asked about how the boundaries for the Mobile Bay watershed were determined (drawn by USGS), mentioned the public-facing nature of the *State of the Bay*, and supported an update to the *State of the Bay* publication. Missy echoed this sentiment and agreed that the document needs to be public-facing in its messaging; along this line, members of the SAC should think about which topic areas and indicators should be featured in the publication, as we will be discussing them at future meetings. She also mentioned the possibility of this effort yielding 2 documents- a technical report written and approved by members of the SAC, and a public-facing bulletin (based on the report) that will be written by an outside contractor. Roberta asked the SAC about how the committee could weave the Biological Condition Gradient (BCG) into the *State of the Bay* and asked Tim Thibaut to further explain some details of the BCG. Dottie Byron asked what the current asks of the SAC are in context of the updated timeline. Following this information, Roberta reiterated a call for the SAC to consider what they viewed as the long-term goals for the committee moving into the new CCMP. Missy responded by suggesting that the SAC have an interim meeting to discuss the organizational logistics of how to get the *State of the Bay* written by next Spring and what topics will be covered in the document; Roberta subsequently offered to host a workshop for these purposes.

Dr. Amy Hunter expressed concern about the path forward with the *State of the Bay* and asked for clarity on the role of the SAC in the bylaws, and whether the SAC works for the NEP or vice versa. She proposed that the SAC create a workplan. John echoed that the SAC needs to have further discussion on the role of the committee in this effort and suggested that the SAC needs some autonomy in creating the *State of the Bay* to ensure an impartial report. John asked the committee if they were in favor of meeting more frequently and in-person, and asked for a more detailed timeline for *State of the Bay*. Missy reiterated that the structure of the document needed to be solidified first at an interim workshop or meeting, to generate an updated timeline. Roberta followed up by asking the SAC if the committee is committed to the BCG, if the Committee wanted to generate an updated *State of the Bay*, and if the Committee was willing to help write the document. Steve asserted that a lot of work had been done to generate the BCG and that it remains a valuable tool. Amy agreed, and asked for the conversation to continue on at a subsequent off-cycle meeting. Roberta agreed and suggested sending out a survey to jumpstart conversations on all of the current asks (*State of the Bay*, BCG, offcycle meeting). Amy reiterated that asks should be explicitly written out and expressed confusion about the role of the SAC in the management conference as a non-autonomous advisory body. John wrapped up the meeting by thanking Roberta for sharing the timeline and asked for a motion to adjourn. Missy reminded SAC members to be looking out for an email from her on the stressor matrix report.

Dottie motioned to adjourn the meeting, seconded by Don Blancher. Meeting adjourned at 12:05pm.