

Tidal Monitoring and Analysis Workgroup Monthly Meeting
Thursday May 3, 2012

Conference Call Minutes

10:00am – 12:00pm

Meeting Calendar: <http://www.chesapeakebay.net/calendar/event/17855/>

Participants:

Walter Boynton-UMCES	Liza Hernandez-UMCES	Ashlee Harvey-CRC
Mike Mallonee-ICPRB	Bill Romano-MDDNR	Renee Karrh-MDDNR
Cathy Wazniak-MDDNR	Bruce Michael-MDDNR	Elgin Perry-Stats Consultant
Mike Lane-ODU	Suzanne Doughten-ODU	Carl Friedrichs-VIMS
Mike Koterba-USGS		

Resulting Action Items:

- Distribute tentative June TMAW meeting agenda to members for comments. (L. Hernandez)
- Send previously presented materials related to the status and trends (absolute status) to L. Hernandez. (E. Perry)
- Determine additional work to be conducted on the Potomac to guide the on-going status and trends effort. (L. Hernandez and P. Tango)
- Establish a date and identify a location for the fall storms meeting. (W. Boynton, P. Tango, L. Hernandez and A. Harvey)
- Work with TMAW to determine living resource contributions for the Choptank Synthesis. (B. Michael)
- Work with R. Llanso to obtain benthic data for the Choptank Synthesis. (M. Lane)
- Establish a limited cooperative effort “workplan” and roster of participants for the Choptank Synthesis, which will be shared with TMAW for review. (W. Boynton, L. Hernandez, and P. Tango)
- Establish an informal proposal for the DO meeting to share with TMAW. (W. Boynton, L. Hernandez, P. Tango and A. Harvey)
- Work with L. Hernandez to schedule the FAST-DUET_ESAR meeting. (M. Mallonee, M. Koterba)

Announcements:

- The next TMAW meeting on June 12 will be at the Potomac River Fisheries Commission in Colonial Beach, VA.
 - Note: no internet access at the Potomac River Fisheries Commission.
- The 2012 Virginia Water Monitoring Council meeting will be in Henrico, VA on May 18th.
- The 2012 Chesapeake Modeling Symposium will be held at the Double Tree Hotel in Annapolis, MD May 21-22nd.
- We are awaiting final comments on the Umbrella Criteria Report.

- Bass Master Magazine rated the Potomac River as #31 of the top 100 bass fishing sites in the US, the Susquehanna River was #76.

Lessons Learned Update: (L. Hernandez)

- A story-boarding session was held on April 23th
- The group explored how to best present and communicate the material
- Technical report, which seeks to answer 3 key questions (how are BMPs working, how can we implement them better, and what are the implications for man) to be released in July or August
- Three 4-pg, newsletters will be produced, each focusing on one of the three key questions, will be released monthly beginning in September
 - Each will be accompanied by a press release
- In December, we will release a comprehensive Booklet
- All materials will become available electronically
- Materials will be run through TMAW, STAR and the WQGIT
- A brief overview of the project will be presented at the Executive Council meeting

Status & Trends as they relate to the Executive Council (EC) meeting: (L. Hernandez)

- Status & Trends updates are being prepared for the 2013 EC meeting
- P. Tango met with J. Edwards, N. DiPasquale and R. Batiuk, all of who are interested in having a 2012 status and trends update with 2011 data as soon as it is available
- The ad hoc Status and Trends group has recommended moving toward an absolute status and the use of GAMs for trends analyses.
- L. Hernandez suggested that B. Romano and/or E. Perry share with the group previously mentioned efforts toward the use of an absolute status at the next meeting, if possible; however, E. Perry noted that this has been done several times in the past

➤ **L. Hernandez requests that E. Perry send her previously presented materials related to absolute status**

- Are there any new thoughts on how to move forward with the application of an absolute status when a criterion is not available?
 - The goals should be coming from scientists studying the issues (chlorophyll, nutrients, etc), as they are able to provide professional judgment
- A suggestion proposed by W. Boynton:
 - Use the Harding chlorophyll analysis to obtain distribution properties and compute an absolute status for a few areas
 - We could see interesting links between load and Bay response
- Similar work was conducted by E. Perry and B. Romano using C. Buchanan et al.'s (Feb 2005) work; *Phytoplankton Reference Communities for Chesapeake Bay and its Tidal Tributaries* (Estuaries, Vol. 28, No. 1, pp. 138-159)
- This approach would demonstrate linkages and help to establish benchmarks
- How would CBP respond to that type of approach?

- P. Tango who was absent would probably know best; therefore, L. Hernandez will discuss the issue with him and bring it forward
 - Historically, the biggest challenge and stopping points for movement forward with status and trends has been being sure to know where to draw and maintain the line between goals and regulations
 - The proposed status and trends updates are not ready for regulation and there is concern that they might be misrepresented (i.e., The Cumulative Frequency Distribution (CFD) was put into regulation before it was ready)
 - However, B. Michael noted that getting to the regulatory level is difficult to accomplish and would be a long process
 - Important to note that with the way we are currently computing the status indicator (split into thirds relative to 1st 6-yr of data), the status IS BECOMING the trend; E. Perry recommends abandoning current status indicator and computing 2 status endpoints instead:
 1. Based on thirds for the current 3-year assessment period
 2. Absolute status indicator (where we are vs. where we want to be)
 - Ultimately, is there a way forward on this?
 - W. Boynton suggests the following approach:
 1. Review the work that has already been conducted
 2. Pick a few regions and investigate opposed to making a commitment to specific changes
 - Small targeted effort might help us reach a decision
 - Consider that P. Tango did a lot of work on chlorophyll criteria in the Potomac River and might be a good place to start
- **L. Hernandez and P. Tango to determine additional work to be conducted on the Potomac to guide the on-going status and trends effort**

Storms Meeting Re-Cap: (W. Boynton)

- The STAR Storms meeting was very rich and informative
- Highlights and take-home messages from the meeting include:
 - Huge sediment release are occurring and reservoirs are filling (i.e., Conowingo)
 - B. Hirsch discussed flows greater than 400 cu ft/sec, and the observation of TP extremes (TP loads have been increasing since 2000)
 - Year to year variability in the last 2 decades in flow normalized loads likely related to scour.
 - Tropical storm Lee represented 78% of the annual sediment load and represented a large portion of total dirt load in the last decade
 - Appears that living resources fared alright for the time being, but we might not see the true effects of the storms until after the reproductive season
 - There appears to be a disconnect between water quality measures and living resource responses

- 2011 is a prime example year of climate change effects and could this represent a new “norm”
- Vibrio, not enterococci, are human/animal health problems associated with storm events
- Irene was big event on Eastern Shore (biggest flow ever for Choptank) and we need to consider focusing on Irene more at the next meeting
- Geomorphic effects of storms to smaller watershed would be a good topic to explore at the next meeting
- Should stress non-tidal responses across watershed at the fall meeting
- Explore further discussion on importance of timing of the storm events which is very important for biological responses
- High flow events overwhelm BMP effects
- Bay memory from storm/2011 conditions

Other members' comments:

- There is an effort underway by ACoE, MDDNR, MDE, TNC and SRBC, to assess potential management options to extend the capacity behind Conowingo dam.
 - B. Hirsch's presentation demonstrated that the dam capacity will be reached more immediately than initially anticipated.
 - The meeting demonstrated that we will start to see more scouring events at low flows that will have effects on living resources.
 - Sediments entering the watershed need to be prevented.
 - The meeting stressed the urgency of addressing the high rate of sediment flows especially at Conowingo dam.
 - Ultimately, all options will be extremely expensive, but a decision needs to be made hastily

Growing impressions regarding the fall meeting:

- The date for the meeting needs to be set soon so that people can plan accordingly
- The meeting should include all of the investigators who were part of the effort to measure things during the storm events (NSF associated, Byron Crump, Kevin Seller's team, Laura Harris, etc). as well as those undergoing aforementioned efforts to assess potential management options to extend the capacity behind Conowingo dam
- We should ask for baywide perspective from presenters.
- Identify someone who can summarize previous storm events (Irene, Ivan, Agnes, 1933 hurricane) to remind us of the lessons we have already learned.
- Think about the topics we want to cover and how to arrange them.

➤ **W. Boynton will work with P. Tango, L. Hernandez and A. Harvey to work out a date and identify a location for the fall meeting.**

Choptank/Eastern Shore Synthesis work follow-up: (W. Boynton)
WHAT CAN TMAW ADD TO THIS STORY?

- USGS is focusing on trying to “get the loads right” for nitrogen and phosphorus in both non-point sources and groundwater.
- Tom Fisher (UMCES HPL) did conducted some work on the Choptank and we should consider how we may be able to enrich his work
 - We could examine the living resources response to changes in loads
 - Consider the effect of Bay water quality on the Choptank water quality
 - We could develop another case study and have the CBP modeling team provide water import/export estimates for the Choptank
 - If CBP modeling team is unable to provide estimates, we could use a salinity dilution curve for the tributary as an estimation tool
 - In addition to MDDNR, CBL and VIMS could be helpful partners in the effort
 - M. Lane from ODU could work with R. Llanso to provide benthic data
- **B. Michael will work with TMAW to determine living resource contributions for the Choptank Synthesis**
- **M. Lane will work with R. Llanso to obtain benthic data for the Choptank Synthesis**
- **W. Boynton, L. Hernandez, and P. Tango will work on establishing a limited cooperative effort “workplan” and roster of participants, which will be sent out to TMAW for review**

2013 DO Meeting: (W. Boynton)

- There are many methods for examining DO and many methods for determining trends
 - In previous meetings, TMAW had agreed that there was a need for a DO workshop, though the venue is yet TBD
 - A potential and favorable venue would be a webinar series
- **W. Boynton, L. Hernandez, P. Tango and A. Harvey will establish an informal proposal for the DO meeting to share with TMAW**

Tidal Monitoring Program to FAST-DUET_ESAR: (M. Koterba)

- The FAST-DUET_ESAR Project is based upon recommendations from a Booze Allen Hamilton review.
- DUQAT has changed to DUET and the process will be implemented next year using 2011 data.
- The goal is to make data submittal easier for providers and access easier for users.
- M. Koterba is requesting feedback from the workgroups (NTWG & TMAW); this will entail the tidal data providers to attend an informational meeting.
- **M. Mallonee and M. Koterba will work with L. Hernandez to schedule the FAST-DUET_ESAR meeting.**

Meeting adjourned.