

**Tidal Monitoring and Analysis Workgroup**  
**Meeting Minutes**  
February 2, 2012  
10:00 AM-12:00 PM

**Attendees:**

Walter Boynton – UMCES	Liza Hernandez – UMCES	Peter Tango – USGS	Katie Foreman- UMCES
Mike Mallonee – ICPRB	Jackie Johnson – ICPRB	Mike Koterba – USGS	Ashlee Harvey - CRC
Bruce Michael – MDDNR	Mark Trice – MDDNR	Bill Romano – MDDNR	Rick Hoffman – VADEQ
Mike Lane – ODU	Elgin Perry – Stats Consultant	Ken Moore – VIMS	Mike Ford – NOAA

**Action Items:**

- Discuss ways to showcase monitoring in the 2013 Milestone review, consider work plan (all)
- Discuss the timeline for products and to-do items related to the Umbrella Criteria report (all)
  - Consider implications for the 2017 TMDL re-evaluation: what needs to be done, what can we do, and how we can go about it?
- Determine if the 30-day mean as assessed is adequate to protect the 30-day mean (all)
  - Discuss ways to address the issue if determined not to be adequate
- P. Tango will ask the Umbrella Criteria Assessment Team if any other types of data were used for the Umbrella Criteria report and verify if any adjustments to the criteria need to be made as a result
  - Additionally, P. Tango will verify whether there are any additional data sources which should be incorporated
- Read through the Umbrella Criteria report (all)
- L. Hernandez and K. Foreman will provide updates on the progress of the Lessons Learned report at subsequent meetings
- Convene small committee to examine Status and Trends analysis; committee will report back to TMAW with a draft of the revamp at the March meeting (committee members: P. Tango, E. Perry, B. Romano, M. Lane, R. Hoffman, L. Hernandez, and others)
- Names and contact information of suggested invitees for the STAR topical meeting on Storm Response should be forwarded to P. Tango for discussion at the next STAR meeting scheduled for February 23 (all)

**Welcome, Introductions, announcements (W. Boynton, P. Tango)**

- A review of each jurisdiction's monitoring program is forthcoming; by mid- to late-spring, meetings will be planned across the watershed
  - B. Michael suggested incorporating the monitoring reviews with the Annual Principal Investigators Meeting at MD DNR
- In the 2013 Milestone Review for the watershed, monitoring should be showcased more than modeling; this is something to consider in the 2012 work plan
- Umbrella Criteria:
  - Report will be sent to STAC for review before final submission
  - The implications the report will have for the 2017 TMDL re-evaluation should be considered

- March agenda item: Discussion to establish a timeline for the products and needs resulting from the report and what should be done for 2017

### **Lessons Learned Report Update (L. Hernandez and K. Foreman)**

- L. Hernandez reviewed the synthesis workshop that was held in reference to the Lessons Learned report. She noted that it was a very successful meeting with a good turn out and a lot of progress was made. She noted that a storyboarding meeting is planned for March, during which a communications strategy will be discussed. The report is expected to be concluded by the summer with review via TMAW and NTWG.
- Updates on the progress of the report will follow at each consequent meeting.

### **Umbrella Criteria Conclusion (P. Tango)**

- P. Tango provided details about the conclusion of the Umbrella Criteria report. He mentioned that some questions will be brought to TMAW.
  - Q: What data is being used for the 30-day mean?
  - A: The monitoring program's biweekly/monthly assessments.
  - Q: How can we utilize other types of data (COMMON, etc.)?
  - A: P. Tango will ask the group if any other types of data were used for the report and verify if any adjustments to the criteria need to be made as a result and will verify whether there are any additional data sources which should be incorporated.
  - R. Hoffman suggested that the incorporation of additional data sources be mentioned in chapter 3 in the recommendation section
  - P. Tango suggested that the importance of high frequency data be mentioned in the recommendation section as well
- March agenda item: Discussion about whether or not the 30-day mean from the long-term data set is sufficient
  - B. Michael suggested comparing high-frequency vs. long-term data sets
  - E. Perry mentioned that Jeni Keisman did some time series analysis from the mainstem and found that the model does not capture the variability observed. P. Tango suggested adding this information to chapter 2
  - Q: Is the model valid? What is the most effective, accurate method of measuring?
  - A: P. Tango stated that it is mentioned in the considerations/uncertainties section.

### **Storm Response (P. Tango)**

- Planning for storm response is an agenda item for the February 23<sup>rd</sup> STAR meeting
- P. Tango requests that all members forward him the contact information of any potential invitees to the storm response meeting before the February 23<sup>rd</sup> meeting

## Revamped Status and Trends (W. Boynton)

- W. Boynton emphasized the importance and the need to attempt to answer the question, **“why do the observed trends indicate improvement or deterioration?”** but also emphasized how challenging this may be

Q: How do we decide which questions to ask? How do we prioritize them?

A: We have “prime” variables.

- E. Perry stated that the analysis methods implemented in the mid-1990s resulted in misleading results for the interpretation of data. He noted that there should be an assessment of the methods before asking why; relative status indicator to the early years of the program. There is a movement towards absolute status.
  - P. Tango recommended including additional data with longer-term records.
  - R. Hoffman agreed that an assessment of the methods should be undertaken. He mentioned that from a management perspective, the focus should be on TMDL parameters such as TN, TP, and TSS, criteria parameters such as DO and chlorophyll a, and then link the tidal and nontidal status and trends.
  - W. Boynton emphasized the importance of the addressing the “why” related to the governors wants
  - E. Perry stated that there is a need for a united method and the need to develop new programs and software as they are currently very old.
  - P. Tango questioned how far can we go with the data that we currently have and what can realistically be done with it given the timeframe?
  - W. Boynton said that we need to start at a basic level and we need a plan.
  - E. Perry suggested that a small committee be formed to examine these issues and report back to TMAW.
- Suggested members of the Status and Trends Committee include: E. Perry, B. Romano, M. Lane, P. Tango, R. Hoffman, and L. Hernandez
    - W. Boynton stated that the revamp will be a multi-step procedure: what analysis will be implemented, how will analysis be implemented
  - W. Boynton requested that a draft from the committee be ready for the March TMAW meeting

## DO Discussion Recap (M. Ford)

- M. Ford stated that a method for incorporating NOAA DO buoy data into the CBP criteria assessment is needed
- 4 new files are available each month. DNR and CBP may use the flat files for data and should conduct preliminary QC procedures, flagging any suspicious data points before use
- NOAA is making an attempt to conduct preliminary QC on data
- At a later date, NOAA hopes to develop a more direct, “streaming” method of obtaining data.

Q: What are the plans for the Virginia buoys? (R. Hoffman)

A: S. Carson at CBP is working to set up similar operation procedures for VA as is in place in MD (M. Ford)

Q: Would it be advantageous to run the DO data that is available now through the QA/QC tool? (M. Koterba)

A: Yes. That would be a good idea (M. Ford)