



Tidal Monitoring and Analysis Workgroup
Thursday, November 1st, 2012
10:00 AM – 12:00 PM

<http://www.chesapeakebay.net/calendar/event/18374/>

MINUTES

Participants

Walt Boynton – UMCES/TMAW Chair	Liza Hernandez – UMCES/TMAW Coordinator	Amanda Pruzinsky – CRC/STAR Staffer	Peter Tango – USGS
Katie Foreman – UMCES/CBPO	Mike Mallonee – ICPRB	Kim Couranz – NOAA Chesapeake Bay Office	Andrew Muller – Naval Academy
Diana Muller – South River Keeper/South River Federation	Richard Tian – UMCES/CBPO	Claire Buchanan – ICPRB	Elgin Perry – Independent Consultant
Cindy Johnson – VA DEQ	Janine Howard – VA DEQ	Tish Robertson – VA DEQ	Bill Romano – MD DNR
Ben Cole – MD DNR	Matt Ellis– CRC	Cathy Wazniak – MD DNR	Bruce Michael – MD DNR
Jackie Johnson – ICPRB			

Welcome, introductions, announcements (W. Boynton)

- The next TMAW Meeting is a conference call December 7th, 2012 10AM – 12PM
<http://www.chesapeakebay.net/calendar/event/18375/>
- MD Water Quality Monitoring Council, December 6th, 2012
<http://mddnr.chesapeakebay.net/MWMC/MWMC2010/annualConference.asp>

Hurricane Sandy Monitoring Updates (All)

- USGS updates – Watershed and coastal monitoring
 - Storm surge and wave heights on the coast.
 - LiDAR and fly overs – Assessments of coastal change
 - Teams are still out collecting samples.
 - Susquehanna – As of 11/01/2012 has not yet achieved flood height,
 Potomac – reached flood stage and was slightly above Tropical Storm Lee,
 Choptank – Half of what it was in Tropical Storm Lee.
- **ACTION:** Cathy Wazniak found a map of Maryland portion of the Chesapeake Bay with levels of excessive tide height. She will send the map to TMAW for help in determining the reference for the graphic.

- NOAA updates
 - Most of the 10 buoys in the CIBIS withstood the storm.
 - Anemometer on the first landing buoy (at the mouth of the bay) went down on Sunday. Everything else kept reporting.
 - Annapolis and String Ray Point buoys went down on Tuesday and NOAA will be investigating the cause of the failure.
 - **ACTION:** Posted a quick article “How Did Sandy Affect the Chesapeake?” <http://chesapeakebay.noaa.gov> Please contact Kim Couranz with any suggestions on information that should be linked to in that article.
 - Currently, NOAA is investigating the possible effects of Sandy on living resources.
- VA DEQ updates
 - USGS has been sampling since October 29th, 2012.
 - Current report shows 4-10 inches of rain, but nothing of environmental concern at this point.
 - Lost one gauge, but it is not part of the non-tidal network.
 - Have not received an update from the continuous monitoring through VIMS.
 - Last sampling occurred during the 3rd week of October and not rescheduled to sample again until November 13th, 2012.
- MD DNR updates
 - State was closed Monday and Tuesday.
 - Only one small site was sampled.
 - Non-tidal sites may be being sampling now.
 - MD DNR is sampling the Patuxent River 11/01/2012.
 - Some of the continuous monitoring meters were left out.
 - Telemetry was taken out of most of them before the storm.
- South River Federation updates
 - Sampled October 27th – 31st, 2012.
 - Measured nutrients, turbidity, temperature, pH, salinity, DO, chloride, etc.
 - Also sampled restored sites.
 - Clean water plume in a section of Church Creek.

Umbrella Criterion Follow-up (P. Tango)

- **ACTION:** Key assessment
 - Form Ad-hoc of key analysts to generate a recommendation for TMAW approval on assessing the 7-day mean OW summer DO criterion.
 - Analysts: Claire Buchanan, Tish Robertson, Mike Lane, Peter Tango, Walt Boynton, Elgin Perry, Liza Hernandez, Donna Bilkovic, Matt Hall

- Will need to find MD DNR replacement for Matt Hall
 - Peter Tango will be in contact to schedule a one day meeting to form a recommendation.
 - This item should be completed in February 2013.
 - Include individuals from each of partners involved: WQGIT (Rich Batiuk), CAP (Peter Tango), Modeling Team (Gary Shenk)
 - Note: Any other interested parties may attend. Contact Peter Tango.
 - Providing recommendations for incorporating high frequency dissolved oxygen measurement results into the 30-day assessments.
 - Present options for illustrating attainment uncertainty beyond our CFD methodology.
 - Develop and present the implications of separating shallow water from offshore water in dissolved oxygen.
- **ACTION:** Present – 2014 work on the draft technical addendum
- **ACTION:** Establish further coordination and recommendations for a selection of the CAP WG issues.

For more information:

http://www.chesapeakebay.net/channel_files/18374/2012cap_wg_elements_august.pdf

Water Temperature Indicator Follow-up (W. Boynton)

- Walt Boynton has discussed this issue with Ken Moore.
 - Shallow water two meters or less (sea grasses)
 - Temperature is certainly a factor and a stressor
 - Temperature is a sub-lethal type stress
 - Light availability is also a factor. Light and temperature are interconnected. Simple temperature index may not be the best.
 - Ken Moore and associates have already published two papers
 - Temperature indicator has already been made relative
 - Focus is on sea grasses
 - **ACTION:** Walt Boynton will send around Ken Moore's published papers.
- Walt Boynton has discussed this issue with Mark Trice.
 - **ACTION:** Mark Trice is working with satellite partners to determine if their information may be useful.
 - **ACTION:** Mark Trice is working with computer science partners to work on visualization of temperature and temperature extremes (this would be a Bay wide perspective).
 - **ACTION:** Walt Boynton will follow up with Mark Trice.
- Conducting a simple model/analysis is another possibility.

- Use monitoring sites, such as the MD continuous monitoring sites, to develop a routine process to examine the frequency that temperatures exceed particular thresholds.
 - Use Bay Model as an experimental tool.
- South River Federation is conducting temperature studies.
 - Contact Diana Muller and Andrew Muller for more information.
- **ACTION:** Walt Boynton will put together and circulate a list of broad temperature affects.
 - Categorize temperature affects by use: channel, near shore, and open water.

PIBI Letter Update (P. Tango)

Draft letter is complete and review by TMAW members has been requested.

To view this letter:

http://www.chesapeakebay.net/channel_files/18374/pibi_letter_10-31-12_pt_final.pdf

- **ACTION:** Please review the letter and send corrections/clarifications/suggestions or approval to Peter Tango.
- **ACTION:** Emphasize that without monitoring, no restoration grants.

TMAW Puzzle (Thanks Elgin!)

Elgin requested input on an accidental science experiment that he contacted during the storm:

- In preparation for the storm, Elgin obtained two 5 gallon buckets of water from the Rappahannock River. Inadvertently, one bucket was unprotected from the runoff from his roof and the other was protected. About one inch of precipitation later, the unprotected bucket had settled out, while the protected bucket had not.

Two questions:

- What happened to the bucket in the runoff?
- Does this occur in the rivers?

Ideas:

- Acidity?