



## Non-Tidal Network Meeting

Tuesday, July 16, 2019  
1:00 PM –3:00 PM Full Workgroup

Conference Line: 929-205-6099 Meeting ID: 499-554-063

Webinar\*: <https://zoom.us/j/499554063>

Meeting Materials: [https://www.chesapeakebay.net/what/event/non\\_tidal\\_network\\_meeting](https://www.chesapeakebay.net/what/event/non_tidal_network_meeting)

CBPO Location: 305 Conference Room

\*If you are joining by webinar, please open the webinar first, then dial in.

### AGENDA

#### Action Items:

- ✓ Please contact Peter Tango ([ptango@chesapeakebay.net](mailto:ptango@chesapeakebay.net)) or Breck Sullivan ([bsullivan@chesapeakebay.net](mailto:bsullivan@chesapeakebay.net)) if you have any more topics the Non-Tidal Network Team should cover.
- ✓ Training video shot by the Alliance for the Chesapeake still needs to be edited.
- ✓ Please send Durga Ghosh ([dghosh@chesapeakebay.net](mailto:dghosh@chesapeakebay.net)) or Breck Sullivan any training aids, resources, or videos.
- ✓ Doug Moyer will discuss the results for the Loads and Trends Analysis for the RIM sites at a later meeting.
- ✓ Need to discuss finding a way to fund the lost stations – Marietta and Holtwood Dam due to their importance with understanding the sediment behind the Conowingo Dam.
  - Tammy Zimmerman stated she will put estimates together for how much it costs to run the two sites.
  - Organize a separate meeting to funding for these two stations.

**1:00**

#### Welcome, Introductions & Announcements – Peter Tango (USGS@CBPO)

- [NASA Remote Sensing Workshop](#) – August 22<sup>nd</sup>, targeting remote sensing for water quality on the Chesapeake Bay
- DNR reports the Hypoxia in the Bay was lower this time of year than expected even with the high flows throughout the watershed. Bruce Michael stated wind had an impact on this structure of the Bay.
  - The first June cruise was much worse for hypoxia, but the second June cruise showed a much lower amount of hypoxia than what was forecasted. Days before the second cruise, there were consecutive long wind events which caused mixing of the surface layer with the bottom layer.

**1:15**

#### [Review of NTN meeting themes from Peter's watershed tour](#) - Peter Tango

Establishing NTN meeting themes has been one product of discussions from Peter's recent watershed tour meeting with our monitoring agencies and institutions while reviewing existing monitoring program efforts, successes, challenges, and discussing opportunities and directions for change and growth in the program. Examples of what our community has suggested to date include a diverse range of topics such as reviews of sampling protocols and maintaining network-wide consistency and accountability, data management, quality assurance, extreme event sampling and coordination, changes in sampling network, special studies such as pesticides, hormones, and microplastics and more. Please chime in on additional key themes you would like teed up for the future during this review of community recommendations for upcoming meeting agendas.

Peter is still organizing visits with DNREC, Washington DC, and MD-DC-DE USGS. Since his in-person meeting in 2018, he has received requests on station specific and funding specific topics.

Peter mentioned there are periodic changes in the network. The monitoring network went from 88 stations in 2010 to 125. Currently, it has dropped to around 115 sampling stations. The workgroup needs to be aware of these changes and make sure it doesn't go back down to 88 stations. All these stations have value for the long term network so if some need to be retired, the workgroup will want to discuss that option.

On the topic of State Integrated monitoring networks, USGS is going through a "pivot." They are no longer just interested in the water quality but now how it impacts living resources, understanding best management practices, and how it connects to the land. The workgroup should look for opportunities on sentinel site network development or better integration of analyses with local integrated networks.

Bruce Michael supports a face to face meeting with presentations on what is going on throughout the monitoring networks.

Peter mentioned that Stream health outcome has benthic macros at its core, but there are many sites throughout the watershed with insufficient data. The workgroup should consider leveraging their resources such as teams and stations to improve the sampling for this outcome.

Bruce also strongly supports the topic on groundwater network and integration because modelers were asking him how to address groundwater issues with climate change.

Tammy suggested an additional special study: As part of the statewide water quality network for the USGS which works with the Department of Environmental Protection, they will be sampling p fosC compounds at all water quality network sites including the 36 non-tidal network sites in the state (PA). It will be a one-time sample. PA is the first to be doing it at this scale through DEP. It will start next year in August.

P fosC definition = poly or per fluorinated alkaline substances, long chain carbons with fluorine. The bonds are so strong they won't break down, which is good for application but build up in the environment. They don't have an answer on how to break them down. They are bioaccumulating throughout the food chain and becoming present in people's blood. P fosC is found in high doses in the south eastern part of the state due to the chemical companies that worked there in the past.

**1:35**

### **Standardization of protocols and training – All**

Defensible analyses rely on the consistency and integrity of our data collections. Data-collection protocols should be firmly established in a consistent manner across the network before special studies are introduced. We would like to take this time to recognize what support is in place now (audit schedules, training events, etc.) and what support could be added (1-day workshops, webinars, etc.) to ensure consistency across the watershed network operations for:

- Routine monthly sampling
- Storm sampling
- Headwaters protocols
- Larger river protocols
- Continuous monitors

Durga stated there is a schedule, but it is really flexible. Currently DEQ sites are scheduled. She is hoping to get more sites in before winter such as DE and WV and two groups from the CMC – Arundel Rivers and MDE - are interested. The two new groups, Arundel Rivers Federation and MDE, are already collecting Tier III data, with Shore Rivers being targeted as a likely candidate in the near future.

Mark Nardy has helped with the funding issues so this will streamline the revamp of the audit schedule. There is a discussion about starting a training program, and Durga is hoping it will be introduced at a national meeting like the Shepherdstown meeting or have it as part of the audit process. Having it as part of the audit process allows for the field personal to be present and review the standard USGS protocols for the non-tidal network. It could then be used as a model that could continually be approved upon and use it as a training platform

for new employees. Durga mentioned there is a training video shot with the help of the Alliance for the Chesapeake, but it still needs to be edited.

Dough Moyer stated that DEQ in the past made a video for the sampling process for non-tidal network stations. He asked if there are any resource now that could be added to the video series being created?

Cindy Johnson responded that they were supposed to be produced by a university but it fell through. Cindy will share the piece meal DVDs with Dough.

Due to the effort put into these training materials, Peter asked if there are other institutions with training resources or training aids that all could be stored together. This way the networks are not making similar products when everyone is following the same protocols.

Mark with PADEP stated they have been using continuous instrument monitoring for years now. They put their documentation into a single book that outlines their methodologies and quality insurances. [PADEP methodology Book](#)

Dough Chambers will send Durga his document on monitoring procedures to help compare.

**2:20**

**Round-robin report out of the States on NTN/RIM network operations during the first half of 2019 – All**

Round-robin report-outs have been helpful in highlighting progress towards meeting season and annual sampling targets, identifying field, lab and study design issues that need to be researched and addressed, discussing funding issues/partner shifts, etc. It's your time to highlight successes and challenges with the program work. We will hold a lightning round of just a few (3-5) minutes each to hear from the network efforts across the watershed on how another wet year (i.e., 4 of 6 months above average flows to Chesapeake Bay already in 2019) is being conquered by the excellent work of many in the field and the labs.

Mark from PADEQ mentioned that SRBC is on the same track as USGS for the PA collections.

Tammy updated for USGS. To address the furlough, they did double up on sampling - all the CB non-tidal sites for Jan 28 – Feb 28<sup>th</sup>. Some did get sampled in January as it was scheduled, but most was sampled twice in February. They are on track for sampling the sediment during the high flows and storm events and getting 8 samples for the 15 sites. One station, Big Spring, only has three samples because it is very flashy and once they get there it is past the peak.

Dough Chambers stated WV did not pick up samples missed during the furlough and are expecting it to be hard to fit it in by the end of the year. They may try to pick some up with the storms or double up during the end of the year. They do not have any endangered stations.

Scott talked for MD. They are on track for sampling and the high waters have been a challenge at times. They do not have any endangered stations. They did drop off some stations not because of funding but because of safety issues. Another station was dropped off because of a tidal influence that should be followed up with a discussion at a future meeting.

For VA, Cindy Johnson spoke. DEQ's greatest challenges are during the winters when streams freeze up. They didn't miss any sampling during the furlough. During the last week of January, they went around to get what needed from the network. Doug Moyer goes out to help with training when there are a lot of new employees. They have completed a field audit and doing another one next week to look at the Valley Office for DEQ.

Doug Moyer announced he is about to finalize the Loads and Trends analysis for the RIM sites through 2018. Dough can come back to the workgroup to discuss the results. He's next effort is to begin the computations for the loads of Non-tidal network stations.

Mark Nader asked if only turbidity was lost at the Marietta site. Peter confirmed turbidity was lost and water temperature. This also occurred at the Holtwood Dam site. Mark asked if that data was critical for what is happening with the sediment behind the Conowingo Dam. Do we need to find funding for it?

Doug Moyer agrees that we need to find a way to get these stations running again. Mark asked how much it cost for them to run. Tammy answered she would put together the estimates for both sites. She also stated that they need to fix how Marietta is not transmitted in real time. Peter concluded some members of the Non-Tidal Network Team should have a separate meeting on these two sites.

**3:00      Adjourn**

**Next Meeting Date: Tuesday, October 15<sup>th</sup>**

**Participants:** Bruce Michael, Cindy Johnson, Andrew Kirk, Doug Moyer, Jennifer Rapp, Mark Nardy, Becky Monahan, Scott Franco, Dough Chambers, Durga Ghosh, Mike Mallonee, Mark McNear, Pam Higgins, Tammy Zimmerman, Amy Williams, D Austin, Kirk Havens, Mark Brickner, Peter Tango, Breck Sullivan, Caroline Donovan