



Scientific, Technical Assessment and Reporting (STAR) Team Meeting

March 26, 2015

Joe Macknis Memorial Conference Room (Fish Shack)

Event webpage: <http://www.chesapeakebay.net/S=0/calendar/event/21556/>

Introduction and Announcements

- The National Water Quality Monitoring Conference will be holding their annual meeting in May 2016 in Tampa, FL. More information about the conference can be found [here](#).
- The Alliance for the Chesapeake Bay will be holding the Watershed Forum in September 2015. More information can be found [here](#).
- The deadline to register for CERF's annual conference in Portland is May 1.
- A session was accepted for the Chesapeake Bay at the GSA Conference which is to be held in Baltimore, November 2015.
- The first Conowingo Dam monitoring event occurred between March 14 and 18, flows were predicted to be greater than 150-175 thousand cfs, but never really peaked at over 100,000 cfs. It was a good first effort to mobilize coordination efforts. USGS was able to do all three sites on the Susquehanna: Conowingo dam, Holtwood Dam above Conowingo Pool, and Marietta. MDNR captured samples at Maryland Tributary and Deer Creek, and Exelon contractors were able to capture data at new tributaries flowing into Conowingo pond the Sunday following the flow event. These data are now being put together. UMCES staff were able to get some samples, and will be doing core sampling work shortly. The goal is to capture six of these large flow events over the next two years.
- A compromise is to be reached in passing legislation regarding the phosphorus management tool. A key component of the compromise is that it brings into account research and development necessary needed to address increases in poultry population.

Summary of Recommendations from the BASIN Review of the CBP Water Quality Monitoring

Networks and Product Updates – Mark Bennett & Scott Phillips – USGS, STAR Co-Chairs, Lea Rubin – CRC, STAR Staffer

- Lea outlined the layout and status of progress for the upcoming BASIN report and associated tri-fold to be sent out with the report. In terms of approaches to sustaining and enhancing the monitoring program, the two documents should touch upon how well the monitoring program has worked thus far.
- Feedback from STAR regarding the draft report will be helpful in finalizing a draft that is to be provided to the WQGIT.
- The trifold describes in detail one case study per topic, and next steps are to continue the development of graphics to accompany trifold materials and to go through an editorial review process. Comments and feedback can be emailed to Lea Rubin, lrubin@chesapeakebay.net.
- EPA is requesting that states put together a timeline of CWA goals which includes engagement with jurisdictions and stakeholders by 2014, the prioritization of TMDL assessments and discussions of protection by 2016, and evaluate the timeline established for the expected outcomes and progress made by 2025. The progress made with the Chesapeake Bay TMDL could really be a national example. Monitoring work also falls under this timeline, in the progression of not only recording nutrient levels, but moving toward evaluations of toxic substances.
- **ACTION:** Please review the recommendations outlined in the draft of the report and send to Lea.
- **ACTION:** Finalize the timeline for the development of the report.

- **ACTION:** Determine the author for chapter 5 of BASIN2, and develop a designated review team for the BASIN report.

Fisheries GIT Support – Bruce Vogt – NOAA, Fisheries GIT Coordinator

- Bruce discussed bolstering the water monitoring network in the Choptank, focusing on oysters. The group is open to a change in location, including moving farther up in watershed. This would involve inputting new sensors that would assist in the detection of new trends in agricultural runoff. Could the proposed network be integrated into existing networks?
- In linking the project to land management projects, Tom Fisher from UMCES could be helpful with his established Choptank Network, Judy Denver from USGS with her studies of WQ change, Dean Hively from Agriculture Research Service with their Conservation Effects Research (the CEAP Project).
- The Integrated Trends Analysis Team could also help to leverage the work of a number of organizations. It could also help to make a tie with tidal effects, and link water quality changes with living resources. MDNR has a water quality profiler stationed out in the Harris Creek area, but continuous monitors and other resources could potentially be moved closer to shore.
- Lora Harris and Jeremy Testa may be doing work that is an extension of Mindy Ehrich's thesis, monitoring water quality above oyster beds, which could also benefit Bruce's work.
- All suggestions could be fuel for an oyster BMP expert panel that is to be convened for the WQGIT.
- The contact information of all persons suggested should be emailed to Bruce Vogt. Email Bruce's document to STAR leadership team, do not post to website.

Management Strategy Support – Mindy Ehrich, UMCES/CBPO

- Mindy presented an overview of goals and gaps of each component related to indicators within the management strategies.
- There is a potential to bring in a STAR seminar speaker to help facilitate discussion concerning how to address new indicators that need to be developed.
- Social science indicator discussion
- **ACTION:** Develop a spotlight chart of the management strategies to help STAR leadership determine what needs most help, Goal Team assistance, and other coordination that can be facilitated
- **ACTION:** Determine how the division of Tetra Tech hours should be allocated, evenly or more to specific groups that need additional hours.

Coordination of Cross-GIT Needs - Renee Thompson – USGS/CBPO

- Renee discussed methods of tracking healthy watersheds and initial ideas to realize the healthy watersheds management strategy outcome, which ensures that 100% of state identified healthy watersheds remain healthy. In addition, very preliminary scoping of cross-GIT needs were discussed.
- It is important to identify where healthy watersheds exist which have no protections and are facing threats to their classification as a healthy watershed.
- **ACTION:** There may be an opportunity to help frame and discuss cross-GIT collaboration by potentially creating an action team or workgroup under STAR. Something could potentially be showcased at the Watershed Forum in September as well. Scott Phillips and Jennifer Greiner volunteered to help out in the development process.

An Overview of Citizen Science and Crowdsourcing in Federal agencies - Anne Bowser, Researcher, Data Science & Visualization, Science & Technology Innovation Program, Woodrow Wilson International Center for Scholars Washington, D.C.

[Video Presentation](#)

Discussion

- A challenge for more locally promoted engagement models is the relative lack of financial support for grassroots advocacy groups in comparison to science driven efforts that have access to NSF grant money, IRBs, etc.
- The Legal Barriers Report is attempting to provide more information concerning navigating issues associated with intellectual property, which is a large barrier in federal agencies developing citizen science projects.
- One time funding can be effective in training community liaisons who can train other volunteers. In an example, citizen scientists were trained to use USGS protocols, and USGS volunteers would also come in and collect data with citizen scientists. Some citizen collected samples were also sent to an official lab as part of a quality control measure. An extra layer of volunteers that can serve as trainers and liaisons served to really benefit the entire process.
- Engagement and the methodology process are aspects that are also highly relevant and draw significant attention, i.e. the release of 10 red balloons around the country by DARPA and the subsequent chase to locate them.
- Privacy issues concerning locations and behavior information by citizen scientists and points of data collection are also currently under study.
- Recruitment and retention are distinct problems, and it makes projects more difficult to implement and maintain if this is not considered.
- Many citizen science efforts originate from the needs of a local community, and this can potentially lead to problematic duplication, i.e. parallel projects rather than projects with complementary goals. Part of the challenge in developing more useful datasets is finding those separate groups and connecting them. Determining what motivates data sharing between projects is a difficult question.
- Demographic information are collected from some citizen science groups, and show a more homogenous skew of older, more affluent, well-educated citizens that are most often participating in projects.

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