



# THE ABSTRACT

*A Monthly Update from the Scientific and Technical Advisory Committee*

April 2015

## *Recent STAC News*

### March 2015 STAC Quarterly Meeting

**Annapolis, MD**  
**March 9-10, 2015**

STAC held its March quarterly meeting on March 9<sup>th</sup> and 10<sup>th</sup> at the Sheraton Hotel in Annapolis, Maryland. STAC Chair, Kirk Havens (VIMS) led the committee in a successful two day meeting that included CBP updates, updates on current and future committee activities, and science relevant to the Chesapeake Bay. STAC welcomed the new CRC Director, Bill Ball and STAC Staff, Renee Kelly (CRC). STAC also received an introduction from the newly appointed member, Zachary Easton (VT).

The meeting continued with presentations by Mike Ford (NOAA) and Amy Freitag (VIMS) both of which incorporated some mentioning of ecosystem based fisheries management. The meeting then focused on a discussion of STAC FY15 workshop proposals. Twelve different workshops were proposed for the upcoming fiscal year. STAC members had a chance to ask questions from the workshop leads. Members were provided ranking sheets and asked to rank the proposals on a scale of one to twelve. STAC Staff and its Chair are working to compute rankings while factoring in the timelines and budgets. STAC staff hopes to announce the workshop results before mid-April.

Bruce Vogt (NCBO) and Gary Shenk (EPA-CBPO) presented Chesapeake Bay Program (CBP) responses to the STAC workshop recommendations. These presentations were intended for continued dialog between the STAC leads and the CBP reps, and were a chance to discuss the next steps and allow members to provide feedback to the Bay Program. Peter Tango (USGS-CBPO) provided STAC with an update on STAR's Indicator Action Team, regarding indicators and associated monitoring supporting progress in tracking outcomes.

Rich Batiuk (EPA) then provided an update to STAC members on the new review timeline including due dates and the new panel approach agreed to by the STAC Executive Board (EB). Members discussed ways to recommend reviewers and discuss the workload. An ad hoc group was set up to take on some of those tasks into more detail.

Congressman Rob Wittman joined the meeting on the second day to discuss the Chesapeake Bay Recovery and Accountability Act with a special focus on the Independent Evaluator (IE). Wittman provided a more thorough explanation of the Act and how STAC can be involved. The IE will look at how Bay programs are being resourced and managed, and how funds are being allocated to determine whether that is the most efficient way of operating. Wittman stressed the importance of gaining the trust of stakeholders and communities around the watershed to assure the most accurate data is provided to the IE.

## **Recent Workshop: Evaluating Proprietary BMPs**

**Fairfax, VA**  
**March 24, 2015**

STAC held the workshop, “Evaluating Proprietary BMPs: Is it Time for a State, Regional or National Program?” at the Northern Virginia Regional Commission Office located in Fairfax, VA. The objective of this workshop focused on the need for performance verification and testing of proprietary structural BMPs, or manufactured treatment devices (MTDs). MTDs are structural BMPs typically proposed for ultra-urban or high density developments, and can be a cost-effective solution for meeting sediment and nutrient runoff reductions requirements imposed by the Chesapeake Bay Total Maximum Daily Load (TMDL) when nonstructural treatment practices are not practical. In many cases, verifying the performance of MTDs can be difficult and protocols for their evaluation are evolving.

Participants from around the country gathered together to present and discuss the state of the science on evaluating stormwater treatment performance, as well as the need for MTDs and additionally, the need for an appropriate evaluation or testing program. Existing MTD evaluation programs in Washington and New Jersey were reviewed to gain insight into the potential structure of a similar evaluation program in the Bay region. The overall outcome of the workshop was to pose recommendations on the shape and function of a Baywide MTD evaluation program, devised through an expert panel of the Urban Stormwater Workgroup.

The workshop offered many critical points and focused on the importance of how critical water quality in the Bay is. Following discussion on the current processes for evaluating BMPs in the Bay watershed, and the urgency for incorporating MTDs, participants came to a consensus that a panel approach should be undertaken to begin developing a the Baywide MTD evaluation program, as soon as possible.

## **Upcoming STAC Events:**

- **Shallow Water Modeling Workshop**
  - **Location:** VIMS
  - **When:** May 20<sup>th</sup>, 2015.
  - **Details:** [http://www.chesapeake.org/stac/workshop.php?activity\\_id=244](http://www.chesapeake.org/stac/workshop.php?activity_id=244)

- **June 2015 STAC Quarterly Meeting**
  - **Location:** TBD
  - **When:** June 9-10, 2015
  - **Details:** [http://www.chesapeake.org/stac/meeting.php?activity\\_id=240](http://www.chesapeake.org/stac/meeting.php?activity_id=240)

## Future STAC Discussion Issues

STAC Staff is interested in your involvement in bringing important upcoming issues for (1) inclusion in the newsletter, (2) discussion at future STAC meetings or (3) other CBP-related meetings.

The issues below, identified by STAC members include:

- **Microplastics in the Chesapeake Bay**
  - Proposed at the STAC March 2015 quarterly meeting as a possible workshop for FY2015
  - Ann Swanson (CBC) – Lead
  - Whitepaper or Review possibility
  - Future topic at the June Quarterly Meeting
- **Management Strategies Drafts**
  - Released on March 16<sup>th</sup> for public feedback
  - Website: [http://www.chesapeakebay.net/blog/post/draft\\_management\\_strategies\\_available\\_for\\_public\\_feedback](http://www.chesapeakebay.net/blog/post/draft_management_strategies_available_for_public_feedback)
  - STAC plans to invite the GIT Chairs to the June STAC quarterly meeting to discuss lessons learned in the management strategy development process
  - STAC Chair asks that members review the drafts and determine if they are willing and able to help GITs in developing appropriate monitoring and data analysis. Monitoring and analysis to detect a reaction, or absence of a reaction to a specific management action and the underlying uncertainty associated with the action is something in which we can help provide guidance.
- **Future STAC Topics for Quarterly Meetings**
  - Stream Restoration Effectiveness, Coastal Acidification, and Engagement in BMP verification activity, Conowingo research discussion, etc.

## On the Horizon

- **Workshops**
  - Ranking sheets have been calculated incorporating budget availability and timeline
  - The Executive Board is scheduling a call during the week of April 6 – 10 to discuss the timeline and ranking
  - Following this call, STAC Staff will release the results to all STAC members
- **Reports**
  - Management Effects on Water Quality Trends

- Designing Sustainable Stream Restoration Projects in the Chesapeake Bay
- Exploring Applications of Behavioral Economics Research to Environmental Policy-making in the Chesapeake Bay Watershed
- Re-plumbing the Chesapeake Bay Watershed: Improving Roadside Ditch Management to Meet TMDL Water Quality Goals
- Assessing the Chesapeake Bay Forage Base: Existing Data and Research Priorities

Please submit additional suggestions to STAC Staff Renee Kelly ([KellyR@si.edu](mailto:KellyR@si.edu)) in the coming weeks.

## *Citizens Advisory Committee Update*

### Citizens Advisory Committee Meeting

**Staunton, VA**  
**February 19-20, 2015**

The Citizens Advisory Committee met on February 19<sup>th</sup> and 20<sup>th</sup> at the Stonewall Jackson Hotel in Staunton, VA. The meeting focused primarily on the impacts of Virginia's agriculture, the City of Staunton's partnership with a local watershed group to install stormwater projects in the city, and updates from the Bay Program and management strategies. Nutrient management plans were a main topic of discussion and incorporated into the panel discussion by three local farmers. The farmers expressed mixed emotions on nutrient management plans as both a necessity and a nuisance. These farmers all following strict nutrient management plans voluntarily, but provided multiple reasons why it is difficult and a sacrifice at times. These farmers all want to be stewards to nature but claim they know their land and practices better than any manager would. The farmers want flexibility in these plans so that they can maintain their land in the best way, while also following the limits and restrictions placed by nutrient management plans. There is also a strong lag time involved with the plans implementations due to constant changes made to their drafts. Overall, these environmentally conscious farmers are willing to follow plans and procedures but would like to allow for flexibility and also more incentives. Unfortunately, there are still many farmers in the Virginia area unwilling to participate in nutrient management plans. The hope is to eventually persuade all farmers to implement some type of plan into their farm practices to ensure future reductions of pollution into the watershed.

## *Key Events*

- **April 2015 Communications Workgroup Monthly Meeting**

**Date:** April 2, 2015

**Time:** 9:45 a.m. – 11 a.m.

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22494/>

- **March 2015 Modeling Workgroup Conference Call (Part 2)**  
**Date:** April 2, 2015  
**Time:** 10 a.m. – 12 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22557/>
- **April 2015 Watershed Technical Workgroup Conference Call**  
**Date:** April 2, 2015  
**Time:** 10 a.m. – 12 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22328/>
- **April 2015 Nutrient Management Webinar**  
**Date:** April 6, 2015  
**Time:** 1 p.m. – 3 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22565/>
- **April 2015 Wastewater Treatment Workgroup Conference Call**  
**Date:** April 7, 2015  
**Time:** 10 a.m. – 12 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22307/>
- **April 2015 Partnering and Leadership GIT Meeting**  
**Date:** April 7, 2015  
**Time:** 1 p.m. – 3 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22251/>
- **April 2015 Toxic Contaminants Full Workgroup Meeting (Management Strategy Related)**  
**Date:** April 8, 2015  
**Time:** 1 p.m. – 4 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22293/>
- **April 2015 Management Board Conference Call**  
**Date:** April 9, 2015  
**Time:** 10 a.m. – 12 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22165/>
- **April 2015 Water Quality Goal Implementation Team Conference Call**  
**Date:** April 13, 2015  
**Time:** 1:30 p.m. – 3:30 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22315/>
- **April 2015 Data Integrity Meeting**  
**Date:** April 14, 2015  
**Time:** 10 a.m. – 3 p.m.  
**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22407/>
- **April 2015 Trading and Offsets Workgroup Conference Call**

**Date:** April 15, 2015

**Time:** 10:00 a.m. – 12 p.m.

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22340/>

- **April 2015 Sustainable Fisheries GIT Executive Committee Call**

**Date:** April 20, 2015

**Time:** 1 p.m. – 3 p.m.

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22470/>

- **April 2015 Urban Stormwater Workgroup meeting**

**Date:** April 21, 2015

**Time:** 10:00 a.m. – 3 p.m.

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22419/>

- **April 2015 Modeling Quarterly Review**

**Date:** April 22, 2015

**Time:** TBD

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22434/>

- **April 2015 Modeling Quarterly Review**

**Date:** April 23, 2015

**Time:** TBD

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22434/>

- **April 2015 Goal Implementation Team Chairs Meeting**

**Date:** April 28, 2015

**Time:** 1 p.m. – 3 p.m.

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/22364/>

- **April 2015 Scientific, Technical Assessment and Reporting (STAR) Team Meeting**

**Date:** April 30, 2015

**Time:** 10 a.m. – 1 p.m.

**Details:** <http://www.chesapeakebay.net/S=0/calendar/event/21558/>

\*Please see the Chesapeake Bay Program Calendar for more specific event times and CBP conference line information: <http://www.chesapeakebay.net/calendar>.

## *STAR Updates*

STARs Modeling Workgroup held two quarterly review meetings; both in January, addressing aspects of the Water Quality and Sediment Transport Model WQSTM and the Watershed Model. As the Phase 6 model continues to be constructed, several factors will be incorporated: update of the Airshed Model to the CMAQ Bidirectional Ammonia Model, Revisions of the Watershed Model system structure and a revisiting of model calibration methods, refinements and updates to the WQSTM and shallow water simulations, and continued exploration of factors associated with the TMDL.

The Climate Change Workgroup has been putting effort into the development of the climate resilience management strategy, and both outcome groups held drafting meetings.

STAR also recently provided a presentation to the Water Quality Goal Team on the initial recommendations for the BASIN (building and sustaining integrated networks) water quality report, and a summary was provided at the March 26<sup>th</sup> meeting and the BASIN report authors are assuming their tasks for readying the BASIN report. STAR is also preparing a summary of results from the Global Seminar Services on Monitoring.

STAR is further supporting management strategy development. The Indicator Assessment IA team specifically has been in touch with several management strategy coordinators to conduct a needs assessments for support from STAR. STAR also received a TetraTech contractor support to assist with the monitoring and metrics for some of the outcomes. STAR is determining how it should use the TetraTech contractor support to assist with the monitoring and assessment needs of these outcomes.

If you have any questions regarding the BASIN process, or other STAR activities, please contact STAR Coordinator Peter Tango at [ptango@chesapeakebay.net](mailto:ptango@chesapeakebay.net).

## ***GIT Updates***

**\*The following updates are provided by the Chesapeake Bay Program. Some GITs do not have recent updates to provide at this time.**

### **Sustainable Fisheries Goal Implementation Team (GIT 1)**

Currently the Fisheries GIT has finalized its management strategy draft, which are currently posted on the CBP site. The Chesapeake Bay Stock Assessment Committee (CBSAC) had a conference call on March 9<sup>th</sup> to discuss and finalize the draft terms of reference (TORs) that will guide the next blue crab benchmark stock assessment, scheduled to be complete in late 2016/early 2017. The final TORs will affect how much funding will be necessary to complete the assessment. CBSAC separated the TORs into two groups: those that are typical of any stock assessment and those that would be "extra". CBSAC plans to have the TORs finalized and discuss a cost estimate by mid-May when they meet to discuss the 2015 Advisory Report. The semiannual full Fisheries GIT meeting covering multiple topics including the 2015 Blue Crab Advisory Report, is scheduled in Virginia for the first week of June 2015. STAC Forage workshop leads Tom Ihde (STAC) and Ed Houde (Chesapeake Biological Lab) and the steering committee are finalizing the report and recommendations for the STAC Forage Workshop.

### **Habitat Goal Implementation Team (GIT 2)**

The Habitat GIT has been focusing a lot on the development of the management strategies supporting the six habitat outcomes in the new agreement, as well as the Fish Habitat outcome with the Fisheries GIT. All drafts were submitted on March 16<sup>th</sup> and are now available on the

CBP website for public input. It's important to note that President Obama's proposed fiscal year 2016 budget was released and includes nearly \$38 million dollars to fund land conservation in the Chesapeake Bay watershed. This could fund conservation of up to 7,500 acres.

### **Water Quality Goal Implementation Team (GIT 3): WQGIT**

The WQGIT has approved the decision to allow states to use the Abandoned Mine Reclamation best management practice to offset loads for all extractive areas that are not disturbed for 2015 Progress. In regards to the Shoreline Nutrient Management expert panel report, the WQGIT raised comments and concerns with the report and requested that the coordinator of the panel work with the commenters to develop and incorporate clarifying language into the report to address the concerns raised. This report will be re-presented sometime in March. A Midpoint Assessment website has been developed to house documentation associated with its priorities, including the Project Plan. In addition, external outlook calendars for the WQGIT, Management Board, and PSC have been developed for those key decisions and briefings under the midpoint assessment from 2015 – 2018. The WQGIT received updates from USGS on the findings and recommendations from the recently released Conowingo Report, and the upcoming BASIN Water Quality Report. The WQGIT has a meeting scheduled on April 13<sup>th</sup> in Annapolis. The WQGIT is expected to reach a decision regarding the Shoreline Nutrient Management expert panel report and receive updates on the draft acreage for federal boundaries, and the Chesapeake Bay high res LiDAR data.

### **Maintain Healthy Watersheds Goal Implementation Team (GIT 4)**

Over the past few months the Healthy Watershed GIT leaders and members have been busy developing three separate management strategies: Healthy Watersheds, Land Use Options Evaluation, and Land Use Methods and Metrics. The drafts were released to the public on March 16<sup>th</sup> and are currently collecting public input.

The Healthy Watersheds GIT is also proactively collaborating with the Habitat GIT, Fisheries GIT and STAR to develop an analysis tool to utilize many of the Chesapeake Bay Agreement Outcome datasets. These include, but aren't limited to the following: limited protected lands, stream health, brook trout, forest buffers, and other related datasets to help inform the protection status of healthy watersheds. Renee Thompson (Healthy Watersheds GIT Coordinator) presented this idea to STAR at their March meeting.

Leaders of the GIT are in the process of scheduling and preparing agendas for a GIT meeting most likely occurring in late April or early May.

### **Fostering Stewardship Goal Implementation Team (GIT 5)**

The Citizen Stewardship Outcome Stakeholder Team met March 2<sup>nd</sup> to discuss Management Strategy draft finalization. The team met again on March 16<sup>th</sup> to discuss the development of an index that would provide a metric for the citizen stewardship outcome. The Education Workgroup Leadership Team will meet on April 6<sup>th</sup> with a focus to include the implementation of the Environmental Literacy Indicator Tool for the 2014-2015 baselines. The Public Access



Team has completed the data call for 2014 and has identified 17 new access sites. The Land Conservation Team is working with the Communications and Outreach Workgroup on a communication's plan to help the new team gain visibility. The plan will work to strengthen internal communication among the more than 50 organizations that participate in the Partnership.

### **Enhancing Partnering, Leadership, and Management Goal Implementation Team (GIT 6)**

The Local Leadership Outcome management strategy draft, released on March 16<sup>th</sup>, can now receive public comments on the CBP site. The Independent Evaluator Workgroup recently met with EPA CBPO managers to discuss a process and timeline for responding to the new law which requires an independent evaluator of the program.

### **Meet the Newest STAC Member**

Take a moment to get to know your newest fellow STAC Member. Below you will find a short introduction provided by Zach:

#### **Welcome, Zachary Easton!**

I graduated from Cornell University in 2007 and am now an Assistant Professor in the Department of Biological Systems Engineering at Virginia Tech. The primary focus of my work is to improve our understanding of hydrologic and terrestrial processes that control the biogeochemical cycles and fluxes with the ultimate goal of developing policies and management practices that protect water, soil, and other natural resources. Water is typically my central focus because it is arguably the most critical and at-risk resource to humans and entire ecosystems. My research addresses both native and managed systems, considers processes at plot- to large river basin-scales, and is relatively evenly divided among field study/monitoring, modeling, and application of results to real world problems. Three broad and somewhat overlapping research themes around which I focus are: impact of land use and climate (change) on water quality and quantity, impact of watershed management practices on water quality, and bridging basic research and modeling to management and application.

I became interested in STAC because it embodies what I believe to be the most important aspects of water management; policy and management driven by robust interdisciplinary science. I hope to be able to contribute to STAC in this capacity and to develop new collaborative relationships with the diverse membership.

In my spare time I enjoy running, cycling, skiing, (but alas I fear that boat has sailed upon moving to VA), and playing with my two daughters (Isabella and Madelyn).