



# THE ABSTRACT

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

April 2013

## *Recent STAC News*

### **Updates from March 2013 STAC Quarterly Meeting – Annapolis, Md.** **March 12-13, 2013**

STAC held its fourth and final quarterly meeting of the 2012 fiscal year from March 12-13 at the Sheraton Hotel in Annapolis, Md. The meeting featured presentations from a wide range of experts in both scientific and policy-related capacities. STAC also performed an internal assessment of expertise needs, and voted for a new STAC member and Executive Board member to replace the resigning Jim Pease (VT). Kurt Stephenson (VT) is the newest STAC member, and Marjy Friedrichs (VIMS), will join the STAC Executive Board.

Additionally, members heard seven workshop proposal presentations and decided to convene a STAC workgroup following the meeting to further refine these proposals. After the proposals are refined, a final vote will take place during the June quarterly meeting, to determine which workshops are approved. Other presentations included updates from the Chesapeake Bay Program (CBP) Land Use Workgroup, BMP Verification Panel, Lag Times workshop, Nutrient Trading workshop, CBP Modeling Workgroup, Sustainable Fisheries Goal Implementation Team (GIT1), among others.

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### **STAC Multiple Management Models (M3.2) Workshop – Annapolis, Md.** **February 25-26, 2013**

Approximately 50 people attended the STAC-sponsored M3.2 workshop on February 25-26 at the Sheraton Hotel in Annapolis, Md. The workshop focused on three major areas of interest: (1) examining examples of past successes and failures in applying multiple models in decision-making and regulation; (2) the use of multiple models and how they affect the perception of models and their results by decision makers and the public; (3) and the use of multiple models as a tool to enhance the credibility and defensibility of regulatory decisions made to implement the TMDL program for the Chesapeake Bay. A workshop report is being developed and will be published in a few months.

## *STAR Updates*

STAR (Scientific, Technical Assessment and Reporting) held their most recent monthly meeting in Annapolis on March 28<sup>th</sup>. The STAR team heard presentations from: (1) Lisa Hernandez and Christina Lyerly about the Lessons Learned Report, (2) Gary Shenk spoke about the CBP transition to an all PQUAL Model in Phase 6 of TMDL implementation., (3) Mark Bennett presented on the WRTDS model, (4) Scott Phillips introduced the proposed analysis of factors affecting trends, (5) and Mark Dubin discussed Water Quality GIT Phase 6 priorities. Please follow this link for more information: <http://www.chesapeakebay.net/calendar/event/18837/>

Also, STAR recently released a Midpoint Assessment Priority Workplan to Assess and Explain Water Quality Changes. The goal of this workplan is to enhance the assessment and explanation of monitoring information as part of the Bay TMDL Midpoint Assessment. To assess CBP's progress towards these 2017 water quality standards, the CBP will examine reporting of water-quality practices, trends of nitrogen, phosphorous and sediment, and attainment of dissolved oxygen, chlorophyll-*a*, and water clarity/SAV standards. The results from this project will be used to enhance CBP models, and allow CBP partners to consider potential adaptations to meet the TMDL. The full workplan can be found here:

[http://www.chesapeakebay.net/channel\\_files/18837/star\\_enhanced\\_assessment\\_and\\_explanation\\_of\\_water-quality\\_monitoring\\_information\\_march\\_26\\_2.pdf](http://www.chesapeakebay.net/channel_files/18837/star_enhanced_assessment_and_explanation_of_water-quality_monitoring_information_march_26_2.pdf)

## *GIT Updates*

**Editorial Note:** Below are summaries of both recent and upcoming CBP Goal Implementation Team (GIT) and workgroup meetings. All STAC members are **STRONGLY** encouraged to attend or call in to a particular workgroup or GIT of their choosing, and relay information to us for inclusion in the newsletter.

All workgroups and GITs are in need of additional scientific and technical expertise. As a reminder, reimbursement is available for STAC members who wish to attend CBP meetings in-person. For more information on the GITs and workgroups, please visit the CBP committee activities website at: <http://www.chesapeakebay.net/committeeactivities.aspx?menuitem=14890>.

For additional details regarding any of the meetings below, please visit the CBP calendar at: <http://archive.chesapeakebay.net/calendar.cfm?RequestDate=05/26/2011&DefaultView=2>.

### **GIT 1 (Sustainable Fisheries)**

The Fisheries GIT submitted a letter to the Charles County Board of County Commissioners to comment on a proposed development plan that could negatively affect fisheries resources and habitats in Mattawoman Creek and the Wicomico River. GIT 1 also submitted a workshop proposal to STAC and Bruce Vogt presented their request for funding at the March 2013 STAC quarterly meeting. In other news, the GIT 1 Invasive Catfish Taskforce has been working towards finalizing their Invasive Catfish plan, which will be submitted to the Fisheries GIT

Executive Committee in May, and the American Shad Indicator Action Team is developing a new Baywide indicator to better represent ongoing American shad restoration efforts.

## **GIT 2 (Habitat)**

The Habitat GIT and STAC will host the “Designing Sustainable Coastal Habitats” Workshop on April 16-17 in Easton, Md. The workshop will focus on three themes: (1) Ecosystem Components of Coastal Habitats; (2) Capacity of Coastal Habitats to Support Flora and Fauna; (3) Designing Sustainable Coastal Habitats in the Face of Human Development, Climate Change, and Sea Level Rise. GIT 2 also proposed a potential stream focused workshop to STAC. The proposed workshop will focus on methods for designing sustainable restoration projects, identifying best practices, and documenting agreements. The Habitat GIT is working on initiating wetland focused discussions in VA and MD to determine potential priority restoration projects. Initial meetings have been scheduled for April.

## **GIT 3 (Water Quality)**

Water Quality GIT Workgroups are currently implementing high and low priority midpoint assessment workplans, and the Urban Stormwater and Wastewater Treatment workgroups submitted workshop proposals to STAC addressing these priorities. GIT 3 is also planning a two-day agricultural modeling workshop for late May 2013. Additionally, GIT 3 approved the Best Management Practice (BMP) Panel Report, entitled “Recommendations of the Expert Panel to Define Removal Rates for Urban Nutrient Management” (see the report here: [http://www.chesapeakebay.net/documents/Final\\_CBP\\_Approved\\_Expert\\_Panel\\_Report\\_on\\_Urban\\_Nutrient\\_Management--short.pdf](http://www.chesapeakebay.net/documents/Final_CBP_Approved_Expert_Panel_Report_on_Urban_Nutrient_Management--short.pdf)).

Also, Russ Baxter (VA DEQ) will take over as GIT 3 Chair, as Jenn Volk (U. Del.) moves into the Vice Chair role.

## **GIT 4 (Healthy Watersheds)**

At their upcoming April 22<sup>nd</sup> meeting, GIT 4 will focus on CBP and state healthy watershed vulnerability assessment capabilities and metrics. GIT 4 will also hold a discussion about a communications workplan, including preparing two sessions for the Watershed Forum and brainstorming for Watershed Forum PLUS activities.

## **GIT 5 (Foster Stewardship)**

With the *Chesapeake Bay Watershed Public Access Plan* now complete, the GIT 5 Public Access Action Team has begun developing an agenda for a plan implementation meeting. This meeting will take place in April 2013, and will address, among other topics, two outstanding issues including urban access concerns and the need for paddle-in primitive campsites along Chesapeake watershed waterways. To refresh your memory, the goal of this plan is to develop 300 new public access sites around the Chesapeake Bay by 2025. GIT 5 received 2012 site development data. The data showed that 18 new public access sites were opened throughout Delaware, Maryland, Pennsylvania, New York and Virginia.

The Foster Stewardship GIT's Education Workgroup is also developing a Meaningful Watershed Educational Experience (MWEE) Capacity Assessment Tool to assess the "comprehensiveness of a school system's environmental literacy program and ability to implement the program. The Citizen's Advisory Committee and the Education Workgroup intend to request that the Principal Staff Committee endorse the Environmental Literacy Strategy at their May meeting, for later consideration at the 2013 Executive Council meeting.

The Land Conservation Action Team continues to maintain and improve the LandScope Chesapeake publicly accessible land conservation geographic information and priority system. Nature Serve, NPS, USGS, and other partners recently refreshed the LandScope Chesapeake system with 71 new data layers, for a total of 156 data layers available across the Chesapeake watershed.

### **GIT 6 (Partnering and Leadership)**

GIT 6 is developing different Styles of Agreement in response to feedback gathered during the February 27<sup>th</sup> MB meeting, and March 7<sup>th</sup> PSC conference call. These styles will be presented at the April 11<sup>th</sup> MB meeting, and during the April PSC conference call.

## ***Upcoming STAC Events***

### **STAC Workshop: Designing Sustainable Coastal Habitats**

**Date:** April 16-17, 2013

**Location:** Annapolis, Md. – Sheraton Hotel

**Details:** The CBP Habitat Goal Implementation Team (GIT) proposed a workshop to convene coastal wetland, living shoreline, and submerged aquatic vegetation (SAV) restoration partners to discuss complementary targeting approaches that will facilitate the development of coastal habitat complexes.

The workshop has three objectives: (1) specifically assess a series of targeting approaches for restoring aquatic habitats including black duck habitat, coastal wetland, living shorelines, and SAV beds and determine the strengths and weaknesses of these approaches; 2) share with federal, state, local, academic, and non-governmental organization (NGO) partners state-of-the-science regarding targeting and address strategies for targeting and reporting on the restoration of habitat for black ducks, wetland, living shoreline, and SAV; 3) build consensus among partners and report findings on the best available approaches for targeting restoration for specific aquatic system restoration in a way that strengthens coastal ecosystems and maximizes the benefits that they provide. Additional information is available on the STAC website here:

[http://www.chesapeake.org/stac/workshop.php?activity\\_id=221](http://www.chesapeake.org/stac/workshop.php?activity_id=221)

***Workshop Goal: Design Sustainable Approaches and Initiatives for Coastal Wetland Habitat Restoration and Protection within the Chesapeake Bay Watershed***

## **STAC Workshop: Critical Issues and Opportunities for Improving Performance of Water Quality Credit Trading Programs in the Chesapeake Bay Watershed**

**Date:** May 14, 2013

**Location:** Annapolis, Md. – Sheraton Hotel

**Details:** STAC will sponsor a Nutrient Trading workshop and discussion on May 14<sup>th</sup> in Annapolis, MD. Experts will convene to examine the current state of nutrient trading programs throughout the Chesapeake Bay watershed, and discuss the future of nutrient trading as a means to reduce the cost of meeting TMDL regulations. The purpose of the workshop will be to inform state trading officials, and develop a set of nutrient trading recommendations to the CBP.

Additional details are available on the meeting website at:

[http://www.chesapeake.org/stac/workshop.php?activity\\_id=223](http://www.chesapeake.org/stac/workshop.php?activity_id=223)

### **April 2013 & May 2013 Management Board Meetings**

**Dates:** April 11, 2013 & May 16, 2013

**Location:** Annapolis, Md. – Fish Shack

### **June 2013 STAC Quarterly Meeting**

**Date:** June 11-12, 2013

**Location:** Annapolis, Md.

## ***STAC Reports***

- *Exploring the Environmental Effects of Shale Gas Development in the Chesapeake Bay Watershed (Published: February 2013)*  
[http://www.chesapeake.org/pubs/287\\_Pyke2012.pdf](http://www.chesapeake.org/pubs/287_Pyke2012.pdf)
- **Upcoming Reports:**
  - *Real World Sustainable Wastewater Practices (Workshop Date: May 16, 2012)*
  - *Research-Based Best Practices for Environmental Education (Workshop Date: August 27-28, 2012)*
  - *Lag Times in the Watershed and Their Influence on Chesapeake Bay Restoration (Workshop Date: October 16-17, 2012)*

## *Welcome, New STAC Members!*

STAC Staff would like to welcome the newest STAC member, Dr. Kurt Stephenson (VT). Dr. Stephenson was recommended by resigning STAC member, Jim Pease (VT), and was voted into the membership during the March 2013 STAC quarterly meeting.

Dr. Stephenson, who works in the Department of Agricultural and Applied Economics at Virginia Tech, has a background in Economics with a focus in agricultural economics. He currently serves as a professor of Environmental and Natural Resource Economics at Virginia Tech. He has also worked at Virginia Tech as an Associate Professor and Assistant Professor since joining the Department of Agricultural and Applied Economics as a Senior Research Associate in 1994.

He teaches a number of courses dealing with the economics of the food system, environmental economic analysis and management, and sustainable development and environmental economics. With his extensive experience in the agricultural economics field, Dr. Stephenson will provide STAC with knowledge of a broad range of key topics including nutrient credit trading programs and agricultural sector processes.

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Dr. Maria Herrmann (NASA/Sigma Space Corporation) will also join STAC as an alternate for Raymond Najjar (PSU). Dr. Herrmann specializes in ocean-atmosphere and land-ocean interactions, physical and biogeochemical oceanography, hydrodynamic mixing processes, ocean carbon cycle, and the impact of climate change on coastal areas.

Dr. Herrmann earned a Masters degree in Environmental Pollution Control from Penn State University in 2000, and a Ph.D. in Meteorology from Penn State in 2010 under the guidance of Ray Najjar. She has worked as an environmental analyst, and spent nearly seven years working in Penn State's Department of Meteorology and Institutes of Energy and Environment, before moving on to the Sigma Space Corporation Carbon Cycle and Ecosystem's Office at NASA's Goddard Space Flight Center in February 2012.

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Please be sure to welcome these new members as they begin participating in upcoming STAC activities. We will need to vote for new members again at the June 2013 STAC quarterly meeting, when seven more STAC members are set to cycle off the committee membership.