



THE ABSTRACT

A Monthly Update from the Scientific and Technical Advisory Committee

January 2013

RECENT STAC NEWS

WORKSHOP: Sustaining Nature in an Urbanizing Landscape

November 8

Laurel, Md. - The Patuxent National Wildlife Visitor's Center in Laurel, Md. hosted a Sustaining Nature Workshop, which featured keynote speaker and former Governor of Maryland, Parris Glendening (President, Smart Growth Leadership Institute), among other presenters, with the goal of relaying a message of environmental consciousness in the face of increasing urbanization, while focusing especially on areas within the Baltimore-Washington corridor. Glendening discussed the use of "in-fill" and rehab development in urban sectors, and commented that Maryland could see the biggest building boom ever over the next 25 years, but through the use of these tactics and proper planning, the state would not need to build over any farm or forested lands. Richard Hall (MD Dept. of Planning) and Jon Laria (Chair, MD Sustainable Growth Commission) echoed these ideas in their presentation, explaining that Maryland expects to see a population increase of one million by 2030, with most of those people moving into the already densely populated central plain region of the state. The second session of the workshop, titled, "When Infrastructure Invades Nature and How to Maintain/Rebuild Nature," consisted of environmental planning case studies throughout Maryland, and the Chesapeake watershed overall. Topics included avoidance, mitigation and environmental stewardship as part of the Inter-county Connector (ICC) construction plan, transmission line right of ways, and urban forest garden partnerships in Greenbelt, Md. and Pennsylvania.

Citizen's Advisory Committee (CAC) Quarterly Meeting

November 29-30

The Citizen's Advisory Committee conducted a two-day quarterly meeting in Havre de Grace, Md. from Nov. 29-30, which included a tour of the Conowingo Dam. CAC also held a Day 1 discussion panel that focused largely on the power company Exelon's relicensing of the Conowingo Dam, the Army Corps of Engineers (ACE) ongoing sediment study, and the issue of sediment scouring and loading to the Susquehanna River basin, and Chesapeake Bay overall, during large, regional storm events. On Day 2, CAC discussed the BMP Verification process from an agricultural standpoint (presented by Mark Dubin – UMD), and heard presentations from CAC's Young Delegates, Adam Thompson (VA) and Elizabeth Burdick (PA). John Dawes will now take over as the CAC Chair, with Charlie Stek taking over his Vice Chair position, and Nikki Tinsley stepping down as former chair.

Principal's Staff Committee (PSC) Quarterly Meeting

December 5

The Principal's Staff Committee meeting took place at the Annapolis Maritime Museum in Annapolis, Md. Lightning round topics included the FY 2013 Action Plan, Toxic Contaminants Report, Sediment in the...

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(PSC Quarterly Meeting cont.)

Conowingo Reservoir, 2013 CBP Communications Plan, Chesapeake Bay Public Access Plan, and Forest Restoration Strategies. Water Quality GIT Chair, Larry Merrill, and WQGIT BMP Verification Panel Chair, Rich Batiuk, gave presentations about Water Quality Restoration, and the BMP Verification Framework, respectively. Merrill detailed the WQGIT's efforts to achieve the 60 percent implementation goal by the 2017 midpoint assessment, proposed Guiding Principles, and recommended next steps, including an upcoming conference call in February that STAC Chair Chris Pyke will be participating in to offer his perspective on the legal liabilities of federal partners, should climate change not be accounted for in future WQGIT goals. Batiuk's talk focused largely on the BMP verification process and principles, and generated a lively discussion on the effectiveness of verification in the Bay watershed. The BMP Verification Committee will hold a meeting on February 21, 2013. Carin Bisland, GIT6 Vice Chair, presented about the proposed program alignment, and asked the PSC for approval of timeline and processes, as well as feedback on proposed governance principles. Opinions from attendees were mixed. Edwin Kee (DOA Delaware) said he approved improvements to the alignment process, but didn't think the prescribed procedures are as important in achieving success as the participation of people involved, and added that he'd like to see more scientific review/validation of the current products and procedures. The next PSC meeting will take place in February 2013. Virginia was tentatively discussed as the potential location for the next meeting.

UPCOMING EVENTS

- **PenAg, "Today's Agriculture,"** (Jan. 2-13);
Location: Lancaster, Pa.
- **Management Board Meeting,** (Jan. 10);
Location: Annapolis, Md. (10-3pm)
- **BMP Verification Committee Conference Call,** (Jan. 22); Location: Annapolis, Md. (1-3pm)
- **January STAR Team Meeting,** (Jan. 31);
Location: Annapolis, Md. (10-1pm)
- **Dept. of Defense Commanders Conference,** (Jan/
Feb. TBD); Location: Quantico, Va.
- **PSC Meeting,** (Feb. TBD);
Location: TBD, Va.
- **Management Board Meeting,** (Feb. 14);
Location: Annapolis, Md. (10-12pm)
- **CAC Meeting,** (Feb. 21-22);
Location: TBD (*Day 1:* 10-5pm, *Day 2:* 8-12pm)
- **M3.2 Workshop,** (Feb. 25-26);
Location: Annapolis, Md.
- **Chesapeake Ag. Networking Forum,** (March 4-6);
Location: Staunton, Va.
- **STAC Quarterly Meeting,** (March 12-13);
Location: Annapolis, Md.
- **Coastal Habitats Workshop,** (April TBD);
Location: TBD

STAC REPORTS

Goal Line 2025 - http://www.chesapeake.org/pubs/295_Meisinger2012.pdf

Over 120 attendees gathered in Hunt Valley, Md. on Oct. 5-6, 2010 to discuss current and next generation tools aimed at improving agricultural nutrient (N and P) BMP and conservation systems. The final workshop report was published on Dec. 13, 2012.

Marcellus Shale Report - STAC held a workshop entitled "Exploring the Environmental Effects of Shale Gas Development in the Chesapeake Bay Watershed," on April 11-12, 2012. An embargoed report will be provided to CBP in mid-January 2013, with a tentative public release date in late-January 2013.

Environmental Literacy Report - The "Research-Based Best Practices for Environmental Education" workshop was held on Aug. 26-27, 2012 in Annapolis, Md. A report is due out in Spring 2013.

CBP MEETINGS & UPDATES

2013 Executive Order Action Plan - The Chesapeake Federal Leadership Committee Designees (FLCD) published their draft 2013 Action Plan for public comment on Nov. 14. The comment period ended Nov. 23, and the final report was published Dec. 18. The Action Plan outlines the commitments for the current fiscal year from each of the federal agencies involved in restoration of the Bay. The report can be found here: http://executiveorder.chesapeakebay.net/EO_13508_FY13_Action_Plan.pdf

Contact: Jim Edward, 410-267-5705; Edward.james@epa.gov

State of the Chesapeake Watershed Report - The CBP partnership will release its annual health and restoration report on the Chesapeake Bay Watershed, titled The State of the Chesapeake and its Watershed, in mid-late January. This report is designed to reach a public audience, more so than its predecessor, the Bay Barometer. The CBP Communications Office sent in an original draft on Dec. 4, and asked that comments be received by Dec. 10.

Contact: Margaret Enloe, 410-267-5740, menloe@chesapeakebay.net

USGS Report on Nutrient and Sediment Loads and Yields into the Chesapeake Bay

- A USGS report, titled "Comparison of two regression-based approaches for determining nutrient and sediment fluxes and trends in the Chesapeake Bay watershed," was released on December __, and presents the trend results for loads and yields at nine USGS River Input Monitoring (RIM) stations, located on the Susquehanna, Potomac, James, Choptank, Patuxent, Rappahannock, Mattaponi, Pamunkey, and Appomattox Rivers. Improvements were seen in long-term nitrogen trends, but phosphorous measurements have worsened at seven of the nine stations. A summary of the report can be found here: http://www.chesapeakebay.net/channel_files/18151/wrtds_estimator_wqgit_10dec2012_corrected3.pdf

Contact: Greg Allen, 410-267-5746; allen.greg@epa.gov

Toxic Contaminants Report - The STAR Action Team developed a Toxic Contaminants Report, published December __. The report includes data on the extent and severity of toxic contaminants in the Bay, and their effects on aquatic life. The EPA and CBP will consider these contaminants during the upcoming alignment process.

Contact: Greg Allen (see above)

Local Government Advisory Committee (LGAC) Quarterly Meeting - LGAC held a two-day meeting in Annapolis, Md. on Dec. 13-14. Day 1 included tours of Annapolis' current environmental project sites. On Day 2, the committee conducted a strategic planning session. **Contact:** Rick Keister, rkeister@allianceforthebay.com

GIT MEETINGS & UPDATES

GIT1 (Sustainable Fisheries) – discussed and accepted the male specific blue crab conservation targets, as recommended by the Chesapeake Bay Stock Assessment Committee (CBSAC), at their Dec. 6-8 meeting. GIT1 will also seek to quantify the ecosystem services and fishery benefits of restored oyster habitats, and convene the Invasive Catfish Task Force to implement goals from the Invasive Catfish Policy Statement. An Action Plan will be drafted in the coming months.

GIT2 (Habitat) – held their fall meeting on Nov. 28 in Cacapon State Park, W. Va. and met with the Eastern Brook Trout Joint venture on Nov. 29. GIT2 has been working with STAR on the Brook Trout Indicator Task Group. Additionally, the SAV workgroup held a meeting on Nov. 8 to revise their strategy document based on STAC's 2011 review.

GIT3 (Water Quality) – met last October 22-23 in Carroll Valley, Pa. to prioritize input from the WQGIT and Modeling Workgroups for the midpoint assessment of water quality progress (2017). Many of the BMP Panels undertaken by the WQGIT workgroups have made progress in urban, ag., wastewater, and forestry sectors. Urban nutrient management and urban stream restoration panel reports are expected to be submitted for review in winter 2012-2013.

GIT4 (Healthy Watersheds) – focused on 2013 work planning and the identification of measurable outcomes and adaptive management based on the key principles of the Decision Framework tool at their Dec. 10 meeting. Earlier in 2012, GIT4 collaborated with STAC to host a workshop intended to identify better methods of representing the role of natural landscape features in nutrient sediment retention, within the CBP Watershed Model.

GIT5 (Foster Stewardship) – identified 1,144 existing public access sites in their latest update to the CBP Public Access Sites indicator, and estimated that 15 new sites were added through 2011. GIT5 also continues to monitor protected lands, and with the USGS, NPS, and NatureServe, developed a watershed-wide strategic, publicly accessible land conservation geographic information and priority system known as LandScope Chesapeake: <http://www.landscape.org/chesapeake>

GIT6 (Partnering and Leadership) – the Decision Framework Implementation Workgroup is drafting a one-page guidance document ("Decision Framework Next Steps"), and working with GIT Chairs to identify their high level goals, to be presented at the January 10 Management Board Meeting. GIT6 will also begin working on the new program alignment process, as approved by the PSC on Dec. 5, 2012 .

STAC RECAP - 2012

The year 2012 was certainly an important one for STAC and the Bay Program. STAC members participated in a number of workshops and meetings that helped redefine our understanding of Bay processes and restoration efforts, and set the stage for more promising progress to be made in 2013. With the 2017 Midpoint Assessment now less than five years away, the Bay Program is pushing for local implementation and increased verification of BMPs. The goal of 60 percent implementation by 2017 looms large, and yet many parties involved are still concerned that current BMPs will not be enough to resolve the issues that the Bay faces now, in addition to those yet unforeseen. STAC's role in assessing these plans and goals will only become more significant in the coming years.

In 2012, STAC was directly called upon to assess the viability of oyster aquaculture as a means of reducing nitrogen levels in certain areas of the Chesapeake Bay watershed. STAC's review request was approved by the Bay Program Management Board, and will become a major priority in 2013. Other organizations have gotten involved as well. Peyton Robertson (NOAA) said at the October 2012 Management Board meeting that NOAA would be consulting oyster aquaculture experts before the end of the year, and that a potential workshop could be held in the near future regarding this topic.

Although oysters may be on the horizon, another topic garnered much more attention, and concern in 2012. The Conowingo Dam, located on the Maryland side of the Susquehanna River, has been identified as a major contributor to sediment loading in the Bay. During major storm events, turbulent water scours the riverbeds behind the dam, sending massive amounts of sediment through the flood gates and directly downstream into the Chesapeake Bay. Two dams further upstream (Holtwood and Safe Harbor) have already reached sediment trapping capacity, and sediment levels behind Conowingo have been steadily increasing for years. STAC members Bob Hirsch (USGS) and Bruce Michael (MD-DNR) were both heavily involved in studies focusing on the dynamics of the dams and sediment scouring in 2012. Hirsch published a report on August 30 titled, "Flux of Nitrogen, Phosphorus, and Suspended Sediment from the Susquehanna River Basin to the Chesapeake Bay during Tropical Storm Lee, September 2011, as an Indicator of the Effects of Reservoir Sedimentation on Water Quality," and Michael remains involved in a range of surveys, modeling, and strategy development efforts within the Lower Susquehanna River watershed. There is also an ongoing study by the Army Corps of Engineers to examine the amount of sediment behind Conowingo, and the effects of additional sediment loads to the Bay.

The effectiveness of these mitigation efforts in the Susquehanna will be largely determined by STAC's understanding of lag times throughout the Chesapeake Bay watershed. The lag times issue was discussed over a two day STAC-sponsored workshop in October 2012, titled "Lag Times in the Watershed and Their Influence on Chesapeake Bay Restoration." Attendees examined the role that lag times play in sediment and nutrient transport and retention in Chesapeake Bay watershed headwaters, as well as the delay in detection of notable improvements in water quality, and recovery of indigenous species. A report on the findings and recommendations of that workshop is in the works, and is due out in 2013. Upcoming STAC workshops in 2013 include the M3.2 Workshop, scheduled for February 25-26 in Annapolis, Maryland, and a Coastal Habitats Workshop, tentatively scheduled for April.

STAC Staff would like to take this opportunity to thank all of our STAC members for the hard work and many hours they've contributed to the committee in 2012. We greatly appreciate your continued dedication, and we're looking forward to working with you all again in 2013.