Chesapeake Bay Program
Management Board Meeting
Thursday, January 10, 2013

Program Update

CBPO Calendar

Jan 14	USGS river data trends release
Jan TBD	CB Toxics Report released
Jan 30	Bay Barometer annual report release/news event
Jan/Feb	DoD Commanders Conference (Quantico, Va.)
Feb (TBD)	PSC Winter Meeting (Washington, DC)
Feb 21-22	Citizens Advisory Committee meeting (Fredricksburg, Va.)
March (TBD)	Local Government Advisory Committee
Mar 4-6	Ches Ag Networking Forum (Staunton, Va.)

Program Updates

CBP to Release 2012 Year End State of the Watershed Report
The CBP Partnership will release the Bay Barometer, the annual health and restoration report on the Chesapeake Bay and its watershed, in mid to late January. The State of the Chesapeake Bay and its Watershed will be shorter and more succinct in style than previously in the Bay Barometer report, and will emphasize visual readability. MB members have shared the draft report with their appropriate agency staff, collected comments, and sent them back to the CBP December 10 for incorporation
Contact: Margaret Enloe, 410-267-5740, menloe@chesapeakebay.net

CBP Request to STAC for Review of Shellfish Aquaculture for Nutrient Reduction
The CBP made a formal request to the Scientific and Technical Advisory Committee's (STAC) to review the June 2012 study "Shellfish Aquaculture: Ecosystem Effects, Benthic-Pelagic Coupling and Potential for Nutrient Trading" as well as other relevant studies, on the use of shellfish as a method of nutrient reduction. The request for review was pursuant to a discussion by the CBP Management Board during its November 14, 2012 meeting. A copy of the formal CBP letter to STAC is attached to the end of this report.
Contact:Greg Barranco, 410-267-57778, barranco.greg@epa.gov

Executive Order Action Plan Released
On December 18, 2012 the Chesapeake Federal Leadership Committee Designees published the final version of the 2013 Action Plan, which lays out commitments for the current fiscal year from each of the federal agencies involved in Bay restoration, as is required by the Executive Order Strategy for Protecting and Restoring the Chesapeake Bay. A press release was distributed in conjunction with a combined media availability with the members of the agencies that comprise the Federal Leadership Committee. The Action Plan and additional information about the Executive Order work are available at: http://executiveorder.chesapeakebay.net/
Contact:Greg Barranco, 410-267-57778, barranco.greg@epa.gov

Toxic Contaminants Report
As required by Executive Order 13508 Strategy for Protecting and Restoring the Chesapeake Bay, EPA, USGS, U.S. Fish and Wildlife Service (FWS) and NOAA will release a final report on January 15, 2013 summarizing the extent and severity of toxic contaminants in the Bay and watershed. Comments that were received by November 9th were integrated into the final document where appropriate by the STAR Action Team's editorial board. The report findings may be used by EPA, other federal partners and the states to consider whether to develop contaminant reduction goals during 2013. Based on the

report recommendations, USGS will enhance research of the sources and extent of toxic contaminants, including endocrine-disrupting compounds, and other factors affecting the health of fish and wildlife. This report is also in compliance with a May 2009 settlement agreement between EPA and the Chesapeake Bay Foundation, and was sent to CBF on Friday, December 21.
Contact: Greg Allen, 410-267-5746, allen.greg@epa.gov

USGS Report on Nutrient & Sediment Loads & Yields
A new USGS report, "Comparison of two regression-based approaches for determining nutrient and sediment fluxes and trends in the Chesapeake Bay watershed" by Moyer and others will be released in January 2013. The report presents trend results for loads and yields at the nine USGS River Input Monitoring (RIM) stations in the Chesapeake Bay watershed. These nine stations are located on the three largest tributaries to Chesapeake Bay--the Susquehanna, Potomac, and James Rivers--and on the Choptank River, on the eastern shore; the Patuxent River, on the western shore of Maryland; and the Rappahannock, Mattaponi, Pamunkey, and Appomattox Rivers in Virginia. Trends in loads and yields are provided for two periods, long-term (1985-2010) and short-term (2001-10). Long-term trends for nitrate and orthophosphorus improved at a majority of the RIM sites. Long-term trends for total nitrogen had improving conditions at 3 sites with minimal change at the reminder of the sites, while phosphorus trends improved at 2 sites, had minimal change at 3 sites, and worsened at the 4 remaining sites.
Contact: Scott Phillips, 443-498-5552, swphilli@usgs.gov

Chesapeake Bay Foundation report card measures "modest" improvement in Bay health
The Chesapeake Bay Foundation has measured a "modest" improvement in Chesapeake Bay health, giving the Bay a "D+" in its biannual State of the Bay report. While the Bay's score of 32 on a one-to-100 scale falls short of what the Foundation would like to see—70 points, or an "A+"—this does mark a progression of one point since the report was last issued in 2010, and of four points since 2008.

The report marks improvements in five of 13 indicators, or gauges of Bay health, which CBF attributes to sound science, renewed restoration efforts and the Bay TMDL which it calls the "Clean Water Blueprint." The report specifically highlights certain results: the average size of the Bay's annual dead zone is shrinking; blue crabs are producing more juveniles and oyster spat are showing improved survival; and states like Virginia and Pennsylvania are planting trees and preserving land from development.

Even as critical acres of underwater grass beds are lost—the one indicator to worsen over the past two years—the once-decimated grasses of the Susquehanna Flats offered good news, surviving Hurricane Irene and Tropical Storm Lee in 2011.
For more information: http://cbf.org/about-the-bay/state-of-the-bay

Forest Restoration Strategy Signing Ceremony
The US Forest Service held a signing ceremony for the Chesapeake Forest Restoration Strategy, which was endorsed by the CBP Principal's Staff Committee in December. Forest Service Chief Tom Tidwell, Bay State Foresters, and Chesapeake Bay Program Director Nick Dipasquale participated in the signing. The Strategy focuses on restoring forest cover in targeted areas to improve ecosystem function and provide community benefits. The Strategy is part of the Recover Habitat goal in Executive Order 13508 Strategy for Protecting and Restoring the Chesapeake Bay Watershed and is available online at http://executiveorder.chesapeakebay.net/post/New-Forest-Restoration-Strategy-for-the-Chesapeake-Watershed.aspx.
Contact: Sally Claggett, 410-267-5706, sclaggett@fs.fed.us

Menhaden Limits Determined
On December 14, 2012, the Atlantic States Marine Fisheries Commission's Atlantic Menhaden Management Board met in Baltimore, Maryland to decide on the final Amendment II to the Interstate

Fishery Management Plan for Atlantic Menhaden, which includes a set of options to manage and monitor the stock on both the short and long-term. Amendment II will officially cut back the allowable harvest by 20%, and allocate the total allowable catch between the bait and reduction fisheries beginning in the 2013 fishing season. It will remain in place until the next stock assessment, scheduled for 2014. This is the first coast-wide limit on menhaden.
For more information: http://www.asmfc.org/

CBP Goal Implementation Team Updates

GIT 1 – Sustainable Fisheries
The Sustainable Fisheries GIT focuses on advancing ecosystem-based fisheries management by using science to make informed fishery management decisions that cross state boundaries.

The full Fisheries GIT met on December 6-8 on Tangier Island. The first evening included an engaging listening session with local stakeholders and watermen from Tangier Island. The following two days were focused on male blue crab reference points, invasive catfish, forage fish & land use, and oyster restoration and aquaculture.

The Fisheries GIT is currently working to schedule its next monthly Executive Committee meeting which will include discussions on forage fish and land use, the December full Fisheries GIT meeting outcomes and next steps, the oyster stock assessment terms of reference, a new invasive catfish task force charge, and a recent oyster nitrogen removal workshop.

The GIT is continuing its work to establish male reference points for blue crabs. And, they are also working to revise CBP indicators for striped bass, menhaden, and American shad. The striped bass indicator has been completed and is under review, while the menhaden and American shad indicators are still under development.

GIT 2 – Habitat
The Habitat GIT is restoring a network of land and water habitats to afford a range of public benefits and to support priority species.

The Fall Habitat GIT meeting was held on November 28th at Cacapon State Park, West Virginia. The meeting focused on a regulatory theme and included presentations of from several regulatory agencies as well as specific case studies presented by practitioners. Following the presentations, a facilitated discussion portion resulted in a list of issues and possible solutions on how to decrease time spent getting permits for habitat restoration projects. The list of issues and possible solutions has been organized into a letter and has been sent on behalf of the Habitat GIT chair, Jeff Horan, to Nick DiPasquale.

The SAV workgroup has finalized their document, "Strategy to Accelerate the Protection and Restoration of Submerged Aquatic Vegetation in the Chesapeake Bay" and plans to present to the Management Board at a later date.

GIT 3 – Water Quality
The Water Quality GIT works to evaluate, focus and accelerates the implementation of practices, policies and programs that will restore water quality in the Chesapeake Bay and its tidal tributaries to conditions that support living resources and protect human health.

On December 10, 2012, Water Quality Goal Implementation Team (WQGIT) Workgroup Chairs and Coordinators presented to the WQGIT membership their midpoint assessment high priority work plans, which outlines the specific actions the Chesapeake Bay Program partnership will take to update the

data input, modeling, and other decision support tools by 2017. WQGIT workgroups are currently drafting work plans for the lower priority items identified in previous months by the Partnership and will present these work plans to the WQGIT during their February 11, 2013 conference call. The Principals' Staff Committee (PSC) approved at their December 5, 2012 meeting the Midpoint Assessment Guiding Principles, which is intended to help guide the Partnership through the midpoint assessment and Phase III Watershed Implementation Plan development process.

Additionally, the Chesapeake Bay Program partnership has committed to the development and adoption of a basinwide BMP verification framework for implementation through the seven watershed jurisdictions' BMP verification programs. This framework will help ensure that practices are properly designed, installed, and maintained over time. The PSC recently approved at their December 5, 2012 meeting the BMP verification principles that will help guide this effort over time, and source-sector specific verification protocols will be reviewed by a BMP Verification Review Panel over the next several months.

Finally, the WQGIT Workgroups are actively engaged in moving several Best Management Practice (BMP) Panels forward in the urban, agriculture, wastewater, and forestry sectors. In particular, final recommendations for the urban nutrient management and urban stream restoration BMP Panels are being reviewed by the appropriate source-sector workgroups and the agriculture nutrient management and conservation tillage BMP Panels will reconvene in the winter 2013 timeframe. The completion of these and other BMP Panels is a high priority for both the midpoint assessment process and the Partnership overall. As such, additional resources to support these Panels is currently being explored. Information on all current and upcoming BMP Panels can be found on ChesapeakeStat at: http://stat.chesapeakebay.net/?q=node/130&quicktabs_10=3

GIT 5 – Foster Stewardship

The Fostering Stewardship GIT promotes individual stewardship, supports environmental education for all ages, and assists citizens, communities and local governments in undertaking initiatives to achieve restoration and conservation in the Chesapeake region. It aims to build public support of restoration efforts and increase citizen engagement and active stewardship.

- Public Access Planning Action Team - The *Chesapeake Bay Watershed Public Access Plan* has been completed and final production changes are being made by the design firm. The plan identifies and maps 1, 150 existing public access sites and an additional 320 potential new public access sites. Notably, the *Chesapeake Bay Watershed Public Access Plan* reflects public access to significant streams, rivers, and bays in the entire Chesapeake watershed, including portions of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia, and all of the District of Columbia. No prior plan for the region has addressed this broad geographic scope. The finalized plan will be available for online use in January.

  With the completion of the *Chesapeake Bay Watershed Public Access Plan*, the Action Team is now directing its efforts towards the first data call for new access sites opened to the public from October 1 of 2011 through December 31 of 2012. The procedures for this data call were outlined in the *Chesapeake Bay Watershed Public Access Plan* and resulting information will show progress towards the goal of developing 300 new public access sites by 2025. Action Team leadership also anticipate hosting a full team, in-person meeting in March to give an update on the status of the *Chesapeake Bay Watershed Public Access Plan* and its implementation, to review data call reports, to assess potential methods for reviewing data on potential new access sites, and to discuss hot topics related to collaboration and public access planning. In addition, NPS staff have been working with organizations, agencies, and localities in the watershed to identify access projects which could be moved forward in the coming year. Targeted potential projects of interest would not only provide new access in the watershed but also enhance access and advance development of CAJO and STSP.

- Education Workgroup - The Education Workgroup is actively working on revising the Workgroup's goal statement, finalizing best practices in environmental literacy, and developing meaningful metrics in support of the MWEE commitment and the Mid-Atlantic Elementary and Secondary Environmental Literacy Strategy. All states (except NY) are engaged in this process, and as of the December 2012 Principal Staffing Committee meeting, all states have expressed support for the Strategy. Draft metrics are expected Spring 2013. The Workgroup would like the formal adoption of these new metrics to be part of the next Executive Council meeting.

  On December 20th, draft best practices in environmental literacy were circulated to Workgroup members for review. When finalized, these best practices could be used to inform funding priorities and decisions for regional environmental education grant programs, to guide the development of new indicators and metrics for the Chesapeake Bay Program, to form the foundation of a potentially new Chesapeake Bay Program education commitment, and to assist environmental education practitioners in program development and evaluation. Workgroup members will convene via conference call in late January to discuss the outcomes of the small team goal and metrics meetings, revisions to the "best practices in environmental literacy" document, a schedule of workgroup meetings for the rest of the year, and actions that need to be taken to finalize metric revisions prior to the next Chesapeake Bay Program Executive Council meeting.

- Land Conservation Action Team - The development and expansion of the LandScope Chesapeake, a watershed-wide strategic, publicly accessible land conservation geographic information and priority system, continues to be the primary focus of the Land Conservation Action Team. To this end, Action Team partners and Nature Serve are working towards a system update that will refresh existing data layers and include the addition of new geographic content. The planned refresh date is in mid-February 2013. Several outreach and promotional opportunities have been planned to encourage use of the tool. Additionally, USGS and Nature Serve staff continue to work on the development of an analysis and reporting tool that will be integrated into LandScope Chesapeake.

GIT 6 – Partnering and Leadership
The goal of the Enhance Partnering, Leadership, and Management GIT is to continually improve the governance and management of the CBP Partnership.

Having received formal approval at the December 5th PSC meeting, GIT6 is now actively engaged with the development of options for new goals, governance, and a potential new agreement to present to the MB and PSC. GIT6 is now working in conjunction with a facilitator to aid with the program alignment process. The Goal Team will be holding a full day planning session led in late January. The Goal Team plans to present on the actions/decisions reached from the full day planning session at the February 14th or March 14th Management Board meeting.

CBP Advisory Committee Updates

Citizens' Advisory Committee
At its December meeting, CAC elected new officers including a new chair, John Dawes and a new vice chair, Charlie Stek. CAC's next meeting will be in Fredericksburg, VA on February 21-22.
Contact Jessica Blackburn, jblackburn@allianceforthebay.org

Local Government Advisory Committee
Chair, Rick Gray, Mayor of Lancaster, made a presentation to the Chesapeake Bay Commission regarding the role of LGAC and local governments and leadership of local initiatives aimed at improving local water quality and protecting the Bay.

At its December Meeting, the LGAC held a full day, facilitated, strategic planning session in Annapolis. Results from the session are currently being synthesized and will be reviewed by a small task group of members. A draft plan is expected to be endorsed by the LGAC by March.

LGAC conducted a major internal survey of its membership to gain insight into member views about mission, past activities (e.g.. the Our Waters, Our Towns publications, association workshops), and potential future direction of the Advisory Committee.

Chair, Rick Gray, Mayor of Lancaster wrote and distributed an opinion article on behalf of the Local Government Advisory Committee. The piece addresses the recent controversy over local government implementation of the WIPs and issues related to the Conowingo Dam.

LGAC has proposed to EPA and to the National Fish and Wildlife Foundation that it would like to create a series of special workshops which focus on state implementation issues and are linked to conferences of state associations of local governments (counties, municipal leagues, townships and borough associations in MD, VA, and PA).

Because of the importance of communication of LGAC's message to local governments, the Committee created an internal Communications Work Group which will monitor communications efforts and meet between quarterly meetings.

The Committee has begun to explore with the National Fish and Wildlife Foundation ways that it might be able to support and guide the NFWF's Local Government and Green Infrastructure Grant programs. Contact: Al Todd, atodd@allianceforthebay.org

Scientific and Technical Advisory Committee

STAC will hold its fourth quarterly meeting of FY 2012 on March 12-13, 2013 in Annapolis, Maryland. The meeting will take place at a location yet to be determined. If you plan on attending this meeting, please send your RSVP to Matt Ellis at ellism@si.edu.

STAC is currently planning two workshops for the upcoming months. These workshops include:

1) *Multiple Management Models in a Regulatory Setting* – This workshop will be held on February 25-26, 2013 at the Sheraton Hotel in Annapolis, Maryland. The purpose of the workshop will be to gather stakeholders, modeling experts and regulatory experts to discuss how multiple models have been applied in management situations around the nation, and analyze whether the Chesapeake Bay restoration effort may benefit from multiple models in the future.

2) *Targeting Restoration of Coastal Habitat Complexes* - This workshop will be held on April 16-17, 2013 at a location yet to be determined. The Habitat Goal Implementation Team (GIT) proposed a workshop to convene coastal wetland, living shoreline, black ducks, and submerged aquatic vegetation (SAV) restoration partners to discuss complementary targeting approaches that will facilitate the development of coastal habitat complexes.

In addition, STAC held a workshop, *Lag Times in the Watershed and their influence on Chesapeake Bay Restoration*, on October 16-17, 2012 in Annapolis, Md. The workshop investigated how lag times between implementation practices and nutrient reductions in water bodies are simulated in the current Chesapeake Bay Watershed Model. Participants developed a set of recommendations that will guide the Chesapeake Bay Program's future consideration of lag times. The workshop report will be released in the next few months.

Finally, STAC completed five reports during the second half of 2012. Those reports include:

- Workshop - Adapting to Climate Change in the Chesapeake Bay: A STAC workshop to monitor progress in addressing climate change across the Chesapeake Bay Watershed - March 2011. Full report can be found at: http://www.chesapeake.org/pubs/287_Pyke2012.pdf (*CBP response pending)*

- Workshop - Evaluating the Validity of the Umbrella Criterion Concept for Chesapeake Bay Tidal Water Quality Assessment - March 2011. Full report can be found at: http://www.chesapeake.org/pubs/289_UmbrellaCriterionActionTeamTidalMonitoringandAnalysisWorkgroup2012.pdf (*CBP response pending)*

- Workshop - Using Multiple Models for Management in the Chesapeake Bay: A Shallow Water Pilot Project - April 2012. Full report can be found at: http://www.chesapeake.org/pubs/291_Pyke2012.pdf (*CBP response pending)*

- Workshop - The Role of Natural Landscape Features in the Fate and Transport of Nutrients and Sediment - March 2012. Full report can be found at: http://www.chesapeake.org/pubs/293_2012.pdf (*CBP response pending)*

- Workshop - Chesapeake Bay Goal Line 2025: Opportunities for Enhancing Agricultural Conservation Conference Report - October 2010. Full report can be found at: http://www.chesapeake.org/pubs/295_Meisinger2012.pdf (*CBP response pending)*

For additional information about the workshops, contact Natalie Gardner at gardnern@si.edu.

Update for STAR's American Shad Indicator Action Team:
The Scientific, Technical Assessment and Reporting (STAR) team's American Shad Indicator Action Team (ASIAT) will meet again on Jan 14th to evaluate data provided by our partners and discuss best use of data for indicator(s) to be piloted during the upcoming season. After the pilot, indicator recommendations will be made to STAR, and eventually, the Management Board.

The ASIAT is a joint effort between the Chesapeake Bay Program's Sustainable Fisheries Goal Implementation Team (GIT), the STAR team, and the Atlantic States Marine Fisheries Commission's American Shad Technical Committee to work with Fisheries GIT staff and their Executive Committee to develop a new American shad indicator for the CBP. For additional information, please visit: www.chesapeakebay.net/groups/group/american_shad_indicator_action_team

Recent Meetings and Events

Jan 2-13	PenAg "Today's Agriculture" (Lancaster, Pa.)
Jan 4	MACO Winter Conference

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Chesapeake Bay Program Office
410 SEVERN AVENUE
ANNAPOLIS, MARYLAND 21403

JAN – 8 2013

Dr. Chris Pyke, Chair
Chesapeake Bay Program Scientific and
Technical Advisory Committee
U.S. Green Building Council
2101 L Street, NW, Suite 500
Washington, DC 20037

Dear Dr. Pyke:

The Chesapeake Bay Program (CBP), pursuant to a discussion by the CBP Management Board during its November 14, 2012 meeting, hereby requests the Scientific and Technical Advisory Committee's (STAC) review the recent study "Shellfish Aquaculture: Ecosystem Effects, Benthic-Pelagic Coupling and Potential for Nutrient Trading" (June 21, 2012; Roger Mann and Roger Newell) as well as other relevant studies, on the use of shellfish as a method of nutrient reduction and advise the program on how this can be incorporated into nutrient reduction practices.

The Mann and Newell shellfish aquaculture study was developed to analyze the nutrient assimilation of shellfish and their potential to assist in the Chesapeake Bay restoration activities. Shellfish are filter feeders with documented potential ability to remove nutrient and suspended sediment pollution from the Bay. The study compiles and analyzes available information on nutrient assimilation and provides a calculation for nutrient reduction and can serve as an introduction to a state-of-the-science review.

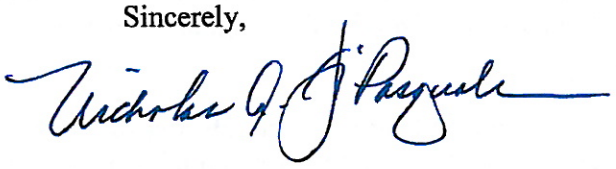
Specifically, we ask that STAC consider the following during its review:

1. The nutrient removal efficiencies of nitrogen by oyster aquaculture and oyster reefs as described in the current state-of-science.
2. The current science support using oyster aquaculture, current Chesapeake oyster beds including oyster sanctuaries or oyster reefs as an *in situ* best management practice in the Chesapeake Bay.
3. The current oyster aquaculture BMP research is representative of all Chesapeake Bay watersheds. (If not, how so?)
4. What would be the most appropriate nitrogen removal efficiency based upon the current science.
5. What are your recommended baseline conditions for an oyster aquaculture, current Chesapeake oyster beds including oyster sanctuaries and for a natural reef site? Conditions may include oyster density, water flow, depth, salinity, use of diploid or triploid populations, in-column or on-bottom reef/caged cultures, a reef component, etc.

6. How should nutrient efficiencies be calculated based on best available data? Which site-specific factors (e.g. salinity, temperature, water flow, depositional load, depth, and bottom/benthic conditions) should be considered in the calculations?
7. Should BMP efficiencies be based on nutrient assimilation, biogeochemistry (denitrification and burial processes), or both? How might this differ based on aquaculture type (on-bottom reef or caged versus in-column).
8. How would on-bottom reef, on-bottom caged, and in-column aquaculture nutrient removal differ from one another? How would these differences impact BMP efficiencies?
9. How will efficiencies change seasonally? How will fluctuations in filtration rate due to low/high temperatures or algae concentrations impact BMP efficiencies?
10. When can nutrient reductions be counted towards the Chesapeake TMDL (annually, at harvest, by season)?
11. Should tissue sampling, water quality data or other methods be used to verify reductions? If so, what would be the measuring protocols?
12. Taking into account the above questions, what are STAC's recommended nutrient reduction efficiencies for oyster aquaculture? How might those efficiencies translate for oyster restoration projects?

As always, we appreciate the role of STAC in serving as an independent review body to the Chesapeake Bay program and we look forward to your response.

Sincerely,



Nicholas DiPasquale, Director
Chesapeake Bay Program