

**Scientific and Technical Advisory Committee
Quarterly Meeting Summary
September 19, 2006
Radisson Hotel, Annapolis, MD**

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Attendance

Members/Alternates: Charlie Abdalla, Mary Beth Adams, Joe Bachman, Denise Breitburg, Cindy Gilmour, Ted Graham, Tom Grizzard, Dave Hansen, Kirk Havens, Carl Hershner, Mike Kemp, Doug Lipton, Nancy Love, Saied Mostaghimi, Margie Mulholland, Ray Najjar, Catherine O’Riordan, Michael Paolisso, Vikram Pattarkine, Chris Pyke, Dave Secor, Kevin Sellner, Jeff Skousen, Mark Walbridge, Denice Wardrop, Dick Weismiller, Don Weller, Claire Welty

Guests: Rich Batiuk, Karl Blankenship, Jamie Bosiljevac, Nancy Butowski, Steve Giordano, Maggie Kerchner, Lewis Linker, Margaret McBride, Bill Rickards, Nita Sylvester

Staff: Melissa Fagan, Dan Gustafson

Call to Order

Carl Hershner, STAC Chair – VIMS, called the meeting to order at 10:00 AM. After introductions of members, guests, and staff, the June meeting minutes were approved.

STAC House Keeping Updates

Carl Hershner led the membership through a review of recent STAC Executive Board discussions regarding STAC membership, policies, and procedures. The first issue discussed was the perceived independence of STAC as an advisory committee which was a concern expressed during the GAO review. Overall, STAC has been able to remain independent through member selection with the exception of State Appointees and Federal Agency Appointees which are appointed by states and the Bay Program Federal Agency Committee. Given these appointments, can STAC claim true independence? After discussing this question, it was determined that even though appointed members are not selected by the committee itself, these members do not pose a particular conflict and can excuse themselves from decisions where conflicts arise just as any other member of STAC could. Rich Batiuk suggested reviewing existing bylaws and policies to ensure that they clearly depict STAC as an independent advisory body. It was also suggested that STAC develop a conflict of interest policy for STAC members, similar to the policy used in STAC peer reviews.

<p>Action: By December, STAC members will forward examples of conflict of interest policies from boards, committees, etc. to Doug Lipton (dlipton@arec.umd.edu) who will develop a general STAC conflict of interest policy.</p>

The next issue discussed focused on the structure of the quarterly STAC meetings. Currently, due to the increase in committee activity, the STAC meeting agendas are

consumed by administrative items such as updates and announcements and often reduce the meeting to one day, which makes it difficult for members traveling in from a distance. The Executive Board proposed creating an activity briefing report that would be compiled and distributed in advance of each meeting and would provide members with routine updates on STAC activities. Members would review the brief in advance of the meeting and would have the opportunity to discuss any items in the briefing materials during the actual meeting. By removing these items from the agenda, more time can be devoted to exploring and discussing current and emerging science issues through presentations by STAC members as well as experts outside of the committee's membership.

Potential Agenda Topics for Future Meetings

Bioavailability of Nitrogen
Fish Health
Toxics Land Use
Indicators and their Frameworks
Wetlands
Floodplain Management (habitat, nutrients and sediments)
Models (future choices for the CBP)
Groundwater
Atmospheric Deposition
Alternative Fuels – Bioenergy
Shallow Water Hypoxia
Shallow Water
Social Science Resources and Research

Additional suggestions for future meetings included meeting less frequently (3 times a year) and using conference calls. It was also suggested that the Executive Board be expanded and turned into a larger workgroup that met on a regular basis. Under this option, the full STAC membership would only meet once or twice each year, but individual members would be brought in periodically to Executive Board discussions.

Action: The Executive Board will develop a substantive agenda for the December quarterly meeting with more time devoted to exploring key scientific and technical issues.

Executive Council Meeting Planning

Carl Hershner briefly reviewed his proposed remarks to the Executive Council (EC) members which will be delivered at the annual Executive Council meeting September 22, 2006. Carl is planning to discuss the appropriate role of STAC within the Bay Program and will encourage the EC to engage STAC early in the process as issues and programs are being discussed and formulated.

Fisheries Management Planning

Nancy Butowski, MD DNR – Fisheries Management and Coordination Workgroup, updated STAC on the development of Chesapeake Bay Fisheries Management Plans (FMPs). Ecosystem based fisheries management plans for 5 key species; striped bass, blue crabs, oysters, alosines, and menhaden, are being developed in response to a *Chesapeake 2000* agreement commitment. The Chesapeake Bay Program (CBP) Fisheries Management and Coordination Workgroup is tasked with developing these plans and are formalizing their approach. Since single species management was the established practice, they are developing their approach to transition into ecosystem based management as called for in the commitment. The workgroup is not on schedule to complete all of the 5 plans on time. They are currently developing the biological background sections and are organizing review panels to discuss and develop management sections. MD Sea Grant has become involved in the process and is helping to facilitate the review panel discussions. There are many challenges and concerns facing the review teams such as establishing what the desired state of the ecosystem is and identifying short and long term objectives. The workgroup is focusing on the management plan for striped bass and will use this as a pilot for testing out the development process. It was suggested that Nancy and the workgroup consider socioeconomic issues and Nancy indicated that they would be considered but that she was unsure how it would translate into the management process. Additional suggestions from the membership included involving stakeholders from the start of the process, linking indicators and metrics to success, conducting Bay-wide assessments, including more scientific leadership early in the process, and developing a specific set of criteria that should be included in all ecosystem based fisheries management plans.

Action: STAC members interested in providing comments to the workgroup on draft fisheries management plans for specific species or for the plans in general should contact Melissa Fagan (faganm@si.edu).

Action: Carl Hershner will draft a proposal outlining potential STAC roles for assisting the Fisheries Management and Coordination Workgroup in developing fisheries based ecosystem management plans.

Modeling Subcommittee Update

Lewis Linker, EPA – Modeling Subcommittee Coordinator, discussed the Modeling Subcommittee’s response to STAC’s recommendation that the subcommittee develop a plan for modeling inshore areas. Lewis noted that subcommittee agrees that shallow water monitoring and modeling is important and the modelers are doing the best they can with limited resources. By mid-October the Water Quality model will be expanded to cover the same period as the Shallow Water Monitoring Program and once this overlap is achieved, calibration can begin using the shallow water monitoring data. STAC members commented that it was important to determine if the data being used is the in the critical areas for attainment and habitat issues and how characteristic each data point is of the surrounding area which it represents. Lewis noted that this was an evolving process and the first step in that process is to extend the model inshore and compare the results with the monitored data. Lewis also discussed the subcommittee’s response to the STAC

Modeling in the Chesapeake Bay Program: 2010 and Beyond workshop. A written response was provided to the membership and Lewis made himself available for questions. After reviewing the document, STAC members noted that ensuring the implementation of the workshop's recommendation is an issue that needs to be followed over the next several meetings.

Chesapeake Bay Program Update

Rich Batiuk, EPA – CBP Associate Director of Science, updated the committee on several Bay Program initiatives and noted areas where STAC assistance is needed. He encouraged STAC to keep looking at the Bay health and restorations process and indicators, and to become engaged in the effort to develop the proposed Bay health index to ensure that the assumptions and methodologies are scientifically defensible. He also suggested that STAC look at existing STAC policies and procedures to make sure they clearly convey STAC independence. He commended STAC for their recent reviews and recommendations, as well as for requiring follow-up reports from the Bay Program to help move these recommendations forward. Rich noted that this is very productive and STAC is leaving its mark on the Bay Program's activities and policies. He also presented a request for STAC to look at organic nitrogen, and encouraged STAC to continue to monitor nutrient trading particularly with regards to the conversion of farm land to suburban development. In addition, Rich noted that STAC will be asked to review draft Best Management Practices (BMPs) as they are revised and updated. Currently the Bay Program is focused on accelerating implementation and contemplating reorganization.

Action: Margie Mulholland, Nancy Love, and Vikram Pattarkine will form a small working group to examine the organic nitrogen issue requested by the CBP. They will present their findings to STAC at the December meeting.

Action: A fact sheet on nutrient pollution from development will be developed by the STAC December meeting. Workgroup members for this task include Tom Simpson, Ted Graham, Mary Beth Adams, Michael Paolisso, Chris Pyke, Dave Hansen, and Kevin Sellner.

Action: Any STAC member interested in looking at the Bay Program reorganization from the scientific perspective should contact Carl Hershner (carl@vims.edu).

Rich continued his presentation to briefly update the committee on federal agency coordination. The federal agencies are working together through a series of high-level administrator meetings to align federal responsibilities, target resources, and link outcomes. Additional information will be made available to STAC as these meetings move forward and recommendations are developed.

Chesapeake Bay Climate Change Program

Chris Pyke, EPA, updated the committee on the EPA Global Change Research Program's on-going activities in the Chesapeake Bay watershed. The program is developing a Climate Assessment Tool for the BASINS modeling system and testing its application on the Monocacy river watershed in Maryland. This tool can also extract data from the Bay

Program's Phase 5 Model. Final products for this tool should be available by March 2007. Additionally, the program is looking at identifying and prioritizing potential adaptive decisions, specifically looking at tributary strategies and how climate change could impact BMPs. Thirty-two BMPs have already been identified as potentially being affected by climate change.

Action: STAC members interested in participating in the Monocacy River pilot program, contact Chris Pyke (pyke.chris@epa.gov).

Action: Chris Pyke is looking for experts on the various BMPs used in tributary strategies to inform the Global Change Research Program's effort at looking at the effects of climate change on BMPs. Interested STAC members willing to assist should contact Chris Pyke (pyke.chris@epa.gov).

Nutrient Trading Update

Doug Lipton, UMD - STAC Vice Chair, Tom Simpson, UMD, and other members of the STAC Nutrient Trading Task Force updated the committee on several nutrient trading items. The Mid-Atlantic Regional Water Program (MARWP) is hosting a workshop to educate people on the subject of nutrient trading and to clear up confusion. They are emphasizing both point and non-point systems as well as developing a research agenda to determine what we don't know about nutrient trading. MARWP is looking for STAC sponsorship for the workshop. They are not asking for financial assistance but would like the continued involvement of STAC members and the endorsement of the committee. STAC approved becoming a co-sponsor of this workshop on the condition that a report or some other outreach piece is developed. MARWP is also developing a fact sheet on nutrient trading that discusses what nutrient trading is, why it is being explored, what a nutrient trading plan should contain, challenges, recourses, and frequently asked questions. The draft fact sheet will be distributed to STAC for review once it is completed. The committee also discussed whether or not additional communication regarding PA's revised nutrient trading plan was needed. The committee agreed that STAC needed to remain engaged with nutrient trading activities and also agreed that the issues of STAC concern are not just relevant to PA, but to all of the jurisdictions developing and implementing nutrient trading plans.

STAC Activity Updates

The committee heard updates on several completed and ongoing activities.

C. ariakensis Research Evaluation

Denise Breitburg, SERC, informed the committee that hard copies of the research evaluation report are now available and being distributed to the EIS teams. She also noted that there was a push to make the introduction decision within the year. The report recommends maintaining the 5-year research schedule. Maryland has recently codified into law that the EIS panel will decide when enough research has been completed to make an informed decision on *ariakensis* introduction.

2030 Land Use and Urban Growth Modeling Review

Chris Pyke informed the committee that the review panel has provided comments and developed several recommendations that will be forwarded to the Bay Program and to STAC members. There are several general findings such as the need for less modeling and more stakeholder involvement, improved modeling, and the development of better scenarios.

Review of the Cumulative Frequency Diagram (CFD) and Interpolator Procedure

Dave Secor, UMCES, informed the committee that the review team has already provided some preliminary recommendations to the Bay Program and will be working on producing a final approach by October 1, 2006. They have identified a need to work with Larry Sanford, UMCES, and Denise Breitburg to address issues surrounding instantaneous dissolved oxygen criteria. The review panel is planning to publish their recommendations and develop an outreach element to help people understand their approach and the CFD and interpolator in general.

Chesapeake Bay Monitoring, Assessment, and Indicator Review

Denise Wardrop updated the committee on the finding of the Monitoring, Assessment, and Indicator Review Team. The team was tasked with reviewing the state of the bay health and restoration reports and was asked to look specifically at the measures for assessing ecosystem health and restoration efforts and if the published reports clearly and accurately describe the Bay's health and restoration status. The committee developed the following recommendations based on the findings of their review.

- 1.) STAC should formulate a standing committee to provide an independent review of the indicator framework.
- 2.) A survey of environmental managers should be undertaken to assess important elements of indicators and reporting.
- 3.) STAC should formulate a standing committee to initially develop the process for independent indicator review, selection, and retirement.
- 4.) STAC should host a workshop in initiate development of the watershed health indicators.
- 5.) Health and Restoration Assessment Reports should not be produced as "draft," with widespread invitation to comment.
- 6.) STAC should provide review support of the report card, as well as an endorsement of the approach.
- 7.) STAC should for a workshop of national and international experts in monitoring and assessment where the scientific underpinnings of all aspects of monitoring are re-assessed and updated.

These recommendations were discussed by the committee and it was noted that when you focus the purpose of your indicators on public communication only, you loose all of the other indicator functions. It was agreed that STAC would request an update on the Bay report card at their December meeting.

<p>Action: Denise Wardrop, Kirk Havens, and Gary Matlock will develop a plan for providing a review of the indicator framework.</p>
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Chlorophyll Review

Kevin Sellner, CRC, informed the committee that the STAC review of the revised chlorophyll criteria is underway. Comments are expected by the end of September and will be summarized for submission to the Chesapeake Bay Program.

Criteria Addendum Review

Kevin Sellner informed the committee that the STAC review of the addendum to the Dissolved oxygen, and clarity criteria is underway. The addendum/revisions to the chlorophyll criteria as well as the CFD approach are being examined through other reviews (mentioned above). Comments are expected by the beginning of October and will be summarized for submission to the Chesapeake Bay Program.

Thresholds, Tipping Points, and Non-linear Pathways in Restoration Ecology

Mike Kemp updated the subcommittee on the status of the Tipping Points workshop. The steering committee has been formed and is currently trying to determine the scale and scope of the workshop which will depend on who is identified and available to participate. The steering committee has developed several motivating questions and is trying to determine potential outcomes.

The Roles of Stream Corridor Restoration and Wetland Enhancement in Nutrient and Sediment Reduction

Ted Graham, MWCOG, updated the committee on the status of this workshop. The workshop has been divided into two separate workshops, one to address streams and one to address wetlands, due to the availability of key speakers and other issues. The workshop budget will also be divided into two so no additional funding is being requested. The streams workshop will be held November 14th at the Patuxent Visitor Center in Laurel, Maryland. Margaret Palmer has agreed to provide the keynote presentation. The wetlands workshop will be scheduled for spring 2007.

Fertilizer Data Workshop

Beth Horsey, MDA, updated the committee on the status of the fertilizer data workshop. This workshop did not receive STAC funding, however, the steering committee is moving forward with initial plans in case STAC funding, or funding from an alternative source, is provided. Key participants will include fertilizer representatives from the various jurisdictions as well as an expert from University of Kentucky. Workshop participants will be trying to determine if the fertilizer data is being used correctly in the Bay Program's model.