

**Scientific and Technical Advisory Committee  
Quarterly Meeting Summary  
December 15-16, 2004  
Radisson Hotel, Annapolis, MD**

**December 15, 2004**

**Attendance**

Members: Mary Beth Adams, Holly Bamford, Don Boesch, Denise Breitburg, Ted Graham, Tom Grizzard, Kirk Havens, Carl Hershner, Ed Houde, Mike Kemp, Ron Korcak, Jonathan Kramer, Doug Lipton, Gary Matlock, Saied Mostaghimi, Scott Phillips, Cliff Randall, Larry Sanford, Dick Weismiller

Guests: Rich Batiuk, Steve Giordano, Carlton Haywood, Ben Hilliard, Raleigh Hood, Maggie Kerchner, Lewis Linker, Tim Llewellyn, Connie Musgrove, Kenna Oseroff, Steve Preston, Ann Swanson, Nita Sylvester, Adam Zimmerman

Staff: Jennifer Bistrack, Melissa Fagan

**Call to Order**

Carl Hershner, STAC Chair, called the meeting to order at 10:00 a.m. After introducing members, guests, and staff, the September meeting minutes were approved. The 2005 STAC quarterly meeting schedule was approved with the exception of the June dates due to a large conference planned for the same timeframe. Approved 2005 dates are: March 15-16, September 13-14, and December 13-14. New June dates will be determined and distributed after the meeting.

**Assessing Cumulative Effects of Shoreline Modification**

Gary Matlock, NOAA, presented a possible proactive workshop on the subject of assessing cumulative effects of shoreline modification. Workshop participants would document status and trends of shoreline and estuarine modification in the Chesapeake Bay, relate those trends to their environmental and economic causes and consequences, predict outcomes of alternative management actions, and review means to implement those alternatives. While this topic has not been a focus of the Chesapeake Bay Program, there is interest from the states. STAC agreed that this would be an appropriate topic for a proactive workshop and encouraged Gary to answer the STAC workshop RFP.

<p><b>Action:</b> Kirk Havens, VIMS, and Holly Bamford, NOAA, will assist Gary Matlock, NOAA, in developing a workshop proposal on this topic for submission to STAC staff by March 1, 2005.</p>
--

**STAC Membership and Bylaws**

Cal Hershner updated the committee on several membership issues. STAC is currently reviewing state appointments to make sure that they are current. We have one opening in D.C., VA, and PA, and PA is overdue to reevaluate their second appointment. We are also seeking to fill our headwater state representative appointments and need to be put in contact with each state's Implementation Committee representatives to begin the

designation process. There are five STAC at-large members whose term expires in June 2005: Carl Hershner, Denise Breitburg, Tom Grizzard, Mike Kemp, and Greg Ruiz. All but Greg Ruiz would like to be considered for their second four-year term. In addition, there are six at-large membership positions open, including the spot that will be vacated by Greg Ruiz. The committee discussed several factors to consider as members vote to fill these positions: disciplinary variety and filling in the current expertise gaps, branching out to different institutions in the watershed, time and willingness to serve, and diversity of members. STAC should consider subcommittee memberships for potential candidates. Voting to fill these at-large positions will occur on-line before the March meeting to allow all members to vote anonymously. At this time, the membership approved the changes made to bylaws. The section defining a quorum and the composition and term length of the Executive Board membership were modified.

**Action:** Carl Hershner, STAC Chair, will redistribute the STAC membership expertise and interest survey results to the committee in advance of new member elections.

**Action:** Any additional STAC membership nominations will be submitted to Carl Hershner, STAC Chair, by February 18, 2005.

**Action:** Rich Batiuk, EPA-CBP, will forward contacts for the Headwater States to Melissa Fagan to establish state representation on STAC.

### **General Accountability Office (GAO) Review of the Bay Program**

Rich Batiuk, EPA CBPO, updated the membership on the status of the GAO review. Senators from MD and VA requested the review based on recent articles in the *Washington Post* and other publications. The review began in November and could take as long as two years to complete. The GAO is looking for how progress is being measured and recorded and how accurately it is being reported. They are also looking at how much has been spent on restoration and how the effort as a whole is being managed. As part of the review, GAO representatives may be interviewing STAC members about their experiences and perspectives on STAC's role and relationship to the Bay Program.

**Action:** A representative of the Chesapeake Bay Program will update STAC quarterly on the activities associated with the GOA review.

### **CBP Environmental Indicators**

Carlton Haywood, ICPRB, presented an overview of the Indicator Task Force. Their objectives are to eliminate inconsistencies so questions can be answered as clearly as possible, to improve timeliness of reports, and to create overarching indices to answer "big picture" questions. Indicators are currently divided into three functional groups and then classified further based on specific roles in order to allow users to track various issues. The task force is also increasing the amount and variety of reports produced. The indicator framework is currently being redesigned and there are several potential roles for STAC. Members could actively participate in the task force during the redesign process, or schedule regular updates at the quarterly STAC meetings as a way to contribute to the process. STAC can also provide the task force with peer review of the indices and

statistics behind them or identify specific experts to walk through issues with the task force and help develop storylines. After Carlton's presentation and much discussion by the membership, STAC agreed that there was a need for scientific input. One possible task would be separating out the indicators with clear cause and effect from the ones that are difficult to interpret. STAC could also make sure that the task force is using the appropriate indicators to answer management questions, and that each is scientifically valid.

**Action:** Mike Kemp, UMCES, Denise Breitburg, SERC, and Kirk Havens, VIMS, will work with Carlton Haywood, ICPRB, to develop an initial review of the indicators to make sure that the hierarchical structure being used to classify the indicators is scientifically sound and that the appropriate indicators are being used to answer management questions.

**Chesapeake Bay Program's Progress towards *Chesapeake 2000* Agreement Goals**  
Rich Batiuk reviewed the Bay Program's progress towards meeting the *Chesapeake 2000* agreement goals by focusing on the ten keystone commitments: native oyster restoration, multispecies management, SAV, watershed management plans, net gain of wetlands, forest buffers, nutrients and sediments, land conservation, harmful sprawl, and the meaningful watershed educational experience. For each keystone, progress was reported and potential STAC roles were outlined.

### **STAC Activity Update**

The membership was updated on several on-going STAC activities.

#### Non-tidal Water Quality Monitoring Task Force

Don Boesch, UMCES, presented the objective of the taskforce: to undertake an assessment of means to improve the analyses and integration of non-tidal monitoring results in order to provide meaningful information for use in management decisions. This assessment will also address the appropriate uses and integration of non-tidal monitoring and watershed modeling. He then presented three specific tasks that the task force will take on to meet these objectives. The membership then offered suggestions for task force members.

**Action:** Melissa Fagan will compile a list of task force nominees and forward the completed list to Don Boesch, UMCES, who will begin task force member selection. Additional task force candidates should be submitted to Melissa by December 31, 2004.

#### Non-tidal Monitoring Task Force

Saied Mostaghimi, VA Tech, presented the goal of this task force: to assist the Chesapeake Bay Program's Non-tidal Monitoring Workgroup with developing guidelines for design and implementation of their program. The group will focus on three things: technical guidelines to assess rivers based on the selection and placement of monitoring sites, approaches for prioritizing sites, and sample collections procedures. A steering committee has been formed and scheduling has begun to organize their first meeting or conference call.

### Phase 5 Watershed Model Peer Review

Carl Hershner updated the committee on the status of this review. The steering committee is gathering background information and crafting a specific charge to the reviewers based upon input from the Bay Program and the STAC membership. They are currently looking for 4-5 external reviewers to bring together for a series of background briefings before the actual review begins. Some of these reviewers will be tasked with following implementation of this model update over the course of the year.

**Action:** Members should submit reviewer nominees to Carl Hershner, STAC Chair, by December 31, 2004. Additional review topics and guidance questions should also be submitted to Carl by the end of the year.

### **Workshop on Modeling in the Chesapeake Bay**

Larry Sanford, UMCES, presented a possible workshop topic on modeling in the Chesapeake Bay. Given the recent headlines regarding the Bay Program and the modeling results, as well as the current GAO review, the timing seems right for an integrated, broad review of modeling in the Chesapeake Bay, not just the Bay Program. Larry outlined two possible approaches. The first would take a broad look at Bay modeling past, present, and future and would produce a report. The second would take an even broader view and in addition to a workshop report, would compile information into one resource on modeling in the Chesapeake Bay. If STAC approves this proposal in March, he would suggest a workshop in fall 2005 and will be looking for steering committee members. Members noted that looking a multiple modeling is important, as well as the limitations of big models and the advantages of small ones.

**Action:** Larry Sanford, UMCES, will develop a workshop proposal on this topic for submission to STAC staff by March 1, 2005.

### **“Understanding the ‘Lag Times’ Affecting the Improvement of Water Quality in the Chesapeake Bay” Workshop Report Overview**

Scott Phillips, USGS, presented an overview of the “Lag Times” workshop report and results. He began with a review of the workshop objectives and topics address in both plenary and break-out discussions. He then highlighted a few of the report’s findings and recommendations such as the need for assistance not just in design but in implementation of BMPs. Communication is needed to convey the true lag times; results from applied BMPs will not be seen for a long time. The watershed model is currently being updated to accommodate these longer lag times.

### **CRC Subcommittee Support Staff Presentations**

Jennifer Bistrack, CRC, introduced Kenna Oseroff, the CRC Subcommittee Support Staffer for the Living Resources Subcommittee. Kenna updated the membership on the status of the ecosystem based fisheries management plans and the recent activities of the Monitoring and Modeling Workgroup. Following Kenna’s presentation, Jennifer introduced Adam Zimmerman, the CRC Subcommittee Support Staffer for the Nutrient Subcommittee. Adam briefed the committee on the recent RFP that was issued for 2005 funding and the three proposals that were selected. He also discussed the innovative

strategy document that was being presented to the Implementation Committee and updated STAC on the activities of the Tidal Sediment Task Force, the Urban Storm Water Workgroup, and the Agriculture Nutrient Reduction Workgroup.

### **Chesapeake Bay Commission (CBC) Priority BMP Identification**

Ann Swanson, CBC Director, presented the findings of the Chesapeake Bay Commission's study "Cost-Effective Strategies for the Bay: 6 Smart Investments for Nutrient and Sediment Reduction." Previously the CBC tallied the total cost of meeting all of the *Chesapeake 2000* agreement goals. With such an overwhelming amount of funding needs, it was now time to figure out the best way to invest public dollars, specifically in the area of water quality. The CBC evaluated 34 different BMPs and selected 6 that if applied aggressively, will produce the best results. The 6 practices selected are: upgrading waste water treatment plants, traditional nutrient management, conservation tillage, cover crops, diet and feed adjustments, and enhanced nutrient management. When these 6 practices are combined together at maximum potential 78% of N, 75% of P, and 100% of sediment goals are met. Overall, STAC did not disagree with the final 6 practices identified in the study, but noted their concern that there is some uncertainty with regards to the agricultural practices as they are very site specific. Ann commented that this study is not meant to be 100% accurate, but more a guideline to direct people's attention to where we might go in the future when trying to meet water quality goals. There are two potential roles for STAC based on this presentation: gather research to support and develop the assumptions used in the study, and review the validity of the assumptions used to determine if the prioritization is in fact reasonable. STAC agreed to consider these roles once the committee has had an opportunity to study the full report.

### **December 16, 2004**

#### **Attendance**

Members: Mary Beth Adams, Joe Bachman, Don Boesch, Denise Breitburg, Ted Graham, Tom Grizzard, Kirk Havens, Carl Hershner, Ed Houde, Mike Kemp, Gerrit Knaap, Ron Korcak, Jonathan Kramer, Doug Lipton, Cliff Randall, Larry Sanford, Tom Simpson

Guests: Margaret McBride, Steve Giordano, Ben Hilliard, Maggie Kerchner, Nancy Love, Connie Musgrove

Staff: Melissa Fagan

#### **Reconvening of the Meeting**

Carl Hershner reconvened the meeting at 9:00 a.m.

#### **EPA, NOAA, and STAC Budget Updates**

Jonathan Kramer, MDSG, and Maggie Kerchner, NOAA CBO, updated the committee on the newly released FY05 NOAA core budget numbers. After this review, they noted that it was unclear what would happen in FY06. For the EPA budget, specific numbers were not available but based on early indications, it is looking like it will be a good year

and that most of the EPA subcommittee activities would be funded. Melissa Fagan, CRC, updated the committee on the overall STAC budget process and timeline and the current FY04 budget expenditures thus far in selected activity categories.

### **Blue Ribbon Panel Report**

Copies of the Blue Ribbon Panel report were available at the meeting and Carl Hershner encouraged everyone to take a look at it. Two things that stuck out initially were the panel's recommendation to use targeting to improve the efficiency of funding and the panel's call for a further look at nutrient trading as a management tool. STAC has been following this issue for some time and with this new spotlight being placed upon it, STAC should be prepared to act. The committee discussed several possibilities including holding a conference, organizing panel discussions, and producing a white paper and decided that at the March meeting, the committee should hear a presentation from Dennis King, UMCES on the subject. After this presentation, further discussions of next steps for STAC in this arena can occur.

Mike Kemp noted that in general STAC needs to be less reactive and more proactive and that it is STAC's responsibility to be advocates of the scientific process being integrated into the management world. It is important that science is not squeezed out of the Bay Program and its budget. We need to take advantage of opportunities to continue making an impact and we should be careful that we are not used solely as a seal of approval. Ed Houde suggested producing an annual state of the Bay science report as well as summarizing key points from our Scientific and Technical Needs Assessment and publishing them in the *Bay Journal*.

### **Collaborative Engineering Analysis Network for Environmental Research**

Nancy Love, VA Tech, presented STAC with an overview of the Collaborative Large-scale Engineering Analysis Network for Environmental Research (CLEANER) program. The goal of CLEANER is to enable a community framework for model forecasting that will promote more effective adaptive management approaches for anthropogenically stressed environments. CLEANER will be a network of environmental field facilities equipped for the acquisition and analysis of data, a virtual repository of data and information technology for modeling and analysis, a mechanism for multidisciplinary research and education activities, and collaboration among engineers, scientists, educators, policy makers, industry, NGOs, and the public. Following this presentation, Mike Kemp, UMCES, focused on the Chesapeake Bay portion of this program and described the objectives and status of the regional project.

### **STAC Workshop Updates and FY05 Workshop RFP**

STAC was updated on several completed and on-going workshops.

#### “Spatial Management in the Chesapeake Bay II”

Ed Houde, UMCES, updated the committee about this follow-up workshop. Based on the results of the first workshop in this series, the objectives of this effort will focus on the planning and design of spatially managed areas. The steering committee has been reassembled and has begun workshop planning.

“Evaluating the Design and Implementation of the Chesapeake Bay Shallow Water Monitoring Program”

Larry Sanford, UMCES, presented the findings of this workshop held November 30-December 1, 2005 in Annapolis. The objectives of the workshop were to look at the mandate and approach of the current shallow water monitoring program. After this examination, participants had several suggestions. Instead of focusing monitoring efforts on random sites, we should focus on whole systems so that cause and effect relationships can be examined and research can be coordinated. With advanced planning of which systems are going to be monitored when, scientists and managers can collaborate and pool resources to perform a system wide assessment. Participants also stressed the need for sentinel monitoring stations to collect data over the long term, and expanding the current program into the small tributary systems.

“Urban Storm Water Sediments”

Ted Graham, WMCOG, updated the committee on the status of this activity. The workshop will be held in March/April 2005 and an agenda has been set. The objective of the workshop will focus on modeling issues, local government issues, street sweeping, and stream corridor restoration activities designed to reduce erosion.

“Integrating Watershed Management and Land Use Planning”

Ted Graham updated the committee on this workshop. The effort has been broken down into three smaller workshops, one being held in each of the states: MD, VA, and PA. MD and VA are planning for spring 2005 workshops and are in process of developing agendas. PA has yet to begun planning and may in fact look to the results from MD and VA instead of holding a separate workshop.

The FY05 STAC workshop RFP was also announced. Proactive and responsive workshop proposals will be due to STAC staff March 1, 2005.

**Fisheries Ecosystem Management Plan Update**

Steve Giordano, NOAA CBP, updated STAC on the status of the Fisheries Ecosystem Management Plan. He reviewed the value and purpose of the document and discussed the pathway to implementation: obtain endorsement, prioritize research and management recommendations, develop pilot plans, and build a cooperative approach. The report itself should be out for publication by the end of January. Additional outreach materials such as fact sheets, brochures, and a practitioner companion guide will also be produced. To begin the process, STAC’s endorsement is needed. After some discussion by committee members, STAC endorsed the Fisheries Ecosystem Management Plan.