



Chesapeake Bay Program
SCIENTIFIC AND TECHNICAL ADVISORY COMMITTEE

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**Report to the Executive Committee of the Chesapeake Bay Program:
Scientific and Technical Advisory Committee, 2008**

The Scientific and Technical Advisory Committee (STAC) provides scientific and technical guidance to the Chesapeake Bay Program (CBP) on measures to restore and protect the Chesapeake Bay and its watershed. STAC uses a variety of tools to advise the CBP; these include workshops, expert reviews, technical committees, technical reports, and direct service from STAC members on CBP subcommittees and workgroups. Highlights of STAC activities for 2008 are listed below. Additional information about the committee and its activities can be found by visiting the STAC website at www.chesapeake.org/stac/.

Completed/On-going Activities:

- *Review of Procedures of the UMD/MAWP Best Management Practice Project: Year 2 (October 2008; Requested by the Mid Atlantic Water Program)*
STAC conducted a review of the Mid Atlantic Water Program's (MAWP) developed process for producing Bay Model reduction effectiveness estimates for a set of best management practices. A report was submitted to the MAWP on October 20, 2008.
- *Climate Change and the Chesapeake Bay: A State-of-the-Science Review (September 2008; Requested by the Chesapeake Bay Program)*
The report, completed in September 2008, details the probable effects that climate change will have on the Chesapeake Bay and explains the need to adapt restoration efforts and resource management to account for environmental changes. The lead authors will present findings to the Implementation Committee in the coming months. Several presentations have been developed to accompany the report and to help disseminate findings and recommendations to a wider audience.
- *Review of the Chesapeake Bay Program's Monitoring Programs Efficiencies (June - December 2008; Requested by the Monitoring and Analysis Subcommittee)*
The review, still in progress, is being conducted through a series of three workshops to provide guidance on streamlining monitoring program and improving efficiency in light of recent funding limitations. Workshop 1 (June 23) focused on identifying management endpoints to frame the programs' objectives. Workshop 2 (October 2) convened program managers and participants to provide the design parameters of a monitoring program that meets the identified management endpoints. Workshop 3 (December 8) will identify monitoring priorities based on the information gathered from Workshops 1 and 2. A review report will be provided to the CBP in early 2009.

- Chesapeake Bay Land Change Model Review (May 2008; Requested by the Land, Growth, and Stewardship Subcommittee)
 Four expert panelists were convened in May to review to Chesapeake Bay Land Change Model, a model geared to forecast urban trends relevant to water quality at county and watershed modeling segment scales. Reviewer comments and recommendations were submitted to the Chesapeake Bay Program in July; a response to the review report was provided back to STAC in October.
- Water Quality Credit Trading: Issues in Uncertainty, Evaluation, and Verification (May 2008; Requested by STAC - Nutrient Trading Taskforce and MAWP)
 The workshop initiated development of an outcomes-oriented trading evaluation framework for use by state program designers and managers to assess relative performance of their nutrient trading programs. A small workgroup of agricultural economists and other experts were convened on May 15th to develop the framework outline. The final document will be available in December.
- Second Review of the Chesapeake Bay Program's Phase Five Watershed Model (February 2008; Requested by the Monitoring and Analysis Subcommittee)
 The review was conducted January 23-25 to assess Phase Five Model development and provide guidance and recommendations for the application of Phase Five to large scale regional problems and small scale TMDL issues. A report summarizing subsequent recommendations was provided to the CBP in February. An update on CBP progress-to-date in addressing the review's recommendations was provided at the STAC June quarterly meeting.

Upcoming Activities

- Cover Crop Enhancement Conference (December 18-19, 2008; Requested by the Nutrient Subcommittee)
 Objective: To promote the sharing of information on winter cover crops amongst agricultural conservation program staff, researchers, and policy stakeholders across the Chesapeake Bay watershed. Coordinated cover crop enhancement workgroups will be created out of this effort to develop state-specific cover crop implementation action plans to identify and address critical information gaps, financial and technical needs, obstacles to implementation, and opportunities that would enhance cover crop adoption within each state.
- Development of Habitat Suitability Models for Ecosystem Based Fisheries Management in the Chesapeake Bay (Date TBA; spring 2009; Requested by STAC)
 Objective: To review and rank a range of approaches used for habitat suitability modeling for Chesapeake Bay living resource species; to develop feasible habitat reference points; and to formulate priorities for research and implementation of habitat suitability approaches, reference points, and management across pillar species.