HEADING

Dr. Chris Pyke, Chair
Scientific and Technical Advisory Committee
US Green Building Council
21 0 1 L Street, NEW Suite 500
Washington, DC 20037

Dear Dr. Pyke:

Thank you for the opportunity to respond to the STAC Workshop on *Using Multiple Models for Management in the Chesapeake Bay: A Shallow Water Pilot Project.* The Chesapeake Bay Program (CBP) recognizes and understands the potential value of multiple models and supports development of multiple models in the Chesapeake Bay and watershed. The Program agrees that a community of scientists and engineers actively using multiple models of the Chesapeake watershed and estuary provides for greater collaboration and useful comparisons among various models. As you know, the CBP is a direct contributor to the objective of multiple community models and actively supports the Chesapeake Community Modeling Program, through staff and some financial support for the symposium, which champions the application of multiple models in the Chesapeake.

Specific responses to the workshop recommendations follow.

Workshop Recommendation 1. Pilot Project Goal
The Shallow Water Multiple Model Pilot Project goal which is to "improve Bay shallow water simulations of dissolved oxygen (DO) and water clarity in order to better understand the impacts of alternative management strategies on living resources in the tidal Chesapeake Bay" is directly aligned with CBP's interest in refining the simulation of shallow water DO and water clarity for the 2017 Midpoint Assessment. The CBP appreciates STAC's initiative in developing the multiple model issues and for the practical strategy outlined in the report for collaboration between the CBP partners and the scientific community to develop and demonstrate the application of multiple models in the proposed shallow water model project.

Workshop Recommendation 2. Rationale for Shallow Water Modeling Efforts
The practical application of the shallow water prototype to the CBP problem areas of Open Water and Water Clarity has the potential to contribute to the 2017 Midpoint Assessment and will provide a real assessment of multiple models for management in the Chesapeake Bay Program. The CBP is highly motivated to address shallow water simulation refinements because the 2010 TMDL *Appendix N: Resolution of Segments Failing to Attain the Jurisdictions' Water Quality Standards* documents cases where failures of the water quality simulation in some shallow waters of the Chesapeake led to alternate means of Open Water or Water Clarity assessment. This is a model limitation that the CBP intends to address and correct by the 2017 Midpoint Assessment. The proposed shallow water prototype will help to move this work forward.

In addition, the timing of the STAC Shallow Water Model Project proposal is also good because it comes at a time when the watershed, airshed, and estuary model simulation periods are being extended to recent years and the CBP has completed several years of shallow water monitoring in the Chesapeake, which were two necessary antecedent steps for the proposed project.

Workshop Recommendation 3. Rationale for Multiple Models

The field of watershed, atmospheric, and estuarine environmental modeling is active and dynamic, and the field is still riding on a wave of technological innovation and improvements that are a source of challenge and opportunity in how we do environmental modeling in the Chesapeake Bay Program. The CBP supports the application of multiple models in the Chesapeake and agree with the rationale STAC has presented in the workshop report, but some practical concerns need to be noted.

The EPA is under a continuing budget resolution and funding decisions are essentially on hold pending a final 2013 fiscal year budget. Once the Federal 2013 fiscal year budget is decided, then final decisions can be made on possible FY 2013 funds for the multiple shallow water model study laid out along the lines in the workshop report. In this difficult fiscal climate, the EPA is aware that additional investments in modeling in the shallow water pilot project, while having the potential for long term cost savings, could result in immediate tradeoffs of decreased program implementation funds. The Chesapeake Bay Program partnership, not EPA alone, will have to make these difficult fiscal decisions.

In closing, please extend my thanks to the workshop steering committee and participants for their time and effort in developing the report *Using Multiple Models for Management in the Chesapeake Bay: A Shallow Water Pilot Project*. We remain, as always, very appreciative of STAC's role in providing independent reviews and guidance for improving our management of the Chesapeake Bay TMDL and restoration effort.

Sincerely,

Nicholas A. DiPasquale, Director
EPA Chesapeake Bay Program Office

Ec: Management Board
Water Quality Goal Implementation Team
Modeling Workgroup