



Chesapeake Bay Program
SCIENTIFIC AND TECHNICAL ADVISORY COMMITTEE
645 Contees Wharf Road, P.O. Box 28, Edgewater, MD 21037
Phone: (410)798-1283 Fax: (410)798-0816
www.chesapeake.org/stac

October 10, 2012

RE: STAC Multiple Models for Management Workshop Report

Nicholas DiPasquale, Director, Chesapeake Bay Program
U.S. Environmental Protection Agency
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Cc: Management Board, Modeling Workgroup

Dear Mr. DiPasquale,

Please see the attached STAC workshop report entitled, “Using Multiple Models for Management in the Chesapeake Bay: A Shallow Water Pilot Project.” This report provides a summary of STAC’s April, 2012 workshop. The report also includes a recommended approach for conducting such a project identified by workshop attendees. Attendees recommended the following:

- 1. Pilot Project Goal:** The overarching goal of the Shallow Water Multiple Model Pilot Project is to improve Bay shallow water simulations of dissolved oxygen and water clarity in order to better understand the impacts of alternative management strategies on living resources in the tidal Chesapeake Bay.
- 2. Rationale for New Shallow Water Modeling Efforts:** Modeling Workgroup staff and subcontractors have identified limitations in the current CH3D-ICM hydrodynamic-water quality model in the shallowest, most productive depths of the Bay and its tributaries. Because dissolved oxygen and water clarity are water quality criteria that must be met to delist the Bay, the workgroup recently suggested that alternative or complementary modeling approaches need to be considered in these waters.
- 3. Rationale for Multiple Models:** STAC believes that the routine comparison of output from several other models with the EPA regulatory model output will (1) help understand the skill of the regulatory model, (2) enable effective adaptive management and accountability, and (3) build understanding and confidence in the model among scientists, managers, and stakeholders.

The pilot project outlined in the report provides a timely opportunity for the CBP to address these issues by implementing a prototype multiple modeling strategy, as has been suggested in several recent CBP reports and reviews (e.g., NAS review; STAC LimnoTech review;

STAC/CCMP Hydrodynamic Workshop report; STAC October 21, 2011 letter; STAC January 18, 2012 letter; see http://www.chesapeake.org/stac/stac_cor_pubs.php).

This report provides Management Board members with additional information on the clear advantages of using multiple models in the Chesapeake Bay, and describes a practical strategy for collaboration between the CBP partners and the scientific community to develop and demonstrate the application of multiple models. STAC members look forward to the Management Board's insights into future shallow water modeling efforts and specifically how stakeholder confidence in load effects on SAV and important shellfish populations may be increased by the use of multiple models.

We would appreciate your comments by December 3rd to inform STAC's discussions during its upcoming December quarterly meeting.

On behalf of the workshop steering committee and the entire STAC, thank you again for considering these recommended next steps, and we look forward to working with you closely in the future.

Sincerely,



Chris Pyke
Chair, Chesapeake Bay Program's Scientific and Technical Advisory Committee