Chesapeake Bay Program
SCIENTIFIC AND TECHNICAL ADVISORY COMMITTEE
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October 10, 2016

RE: STAC Review of the Nutrient Inputs to the Watershed Model

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

Cc: Agricultural Workgroup; Modeling Workgroup; Management Board; Water Quality Goal Implementation Team; Scientific Technical Assessment and Reporting (STAR)

Dear Director DiPasquale,

I am pleased to attach for your consideration the STAC review report: *Scientific and Technical Advisory Committee Review of the Nutrient Inputs to the Watershed Model*. This report provides a summary of the Chesapeake Bay Program (CBP) requested STAC-sponsored independent review of the procedures used to estimate nutrient inputs to the landscape in the Phase 6 Watershed Model, and outlines the panel's findings and recommendations.

The review panel was charged with addressing four main questions on nutrient input procedures (previously referred to as 'Scenario Builder'), and were specifically requested to review the appropriateness of methods used to estimate total manure and fertilizer application, and distributing applications. Additionally, the panel was asked to comment on whether the documentation sufficiently described the nutrient input data and methods, whether the reviewers had concerns or comments about other data and methods described in the documentation, and whether there were additional technical or scientific data that could be used to further inform nutrient input estimates. A panel of five individuals with appropriate expertise to address these questions was formed in June, and the team conducted their review of the provided documentation over the past few months. Note that the panel was provided these documents with the understanding that they are currently in draft form and are subject to modification by decisions that are in the process of being made by the Chesapeake Bay Partnership in parallel with this review.

The body of this report is organized by each of the charge questions. Reviewers provided specific comments to the documentation, and came together to provide consensus feedback on the positive aspects of the reviewed methods and inputs, as well as recommendations. The recommendations identified by the review team can be summarized broadly below as those which focused on:

- Increasing consistency in parameter evaluation across states,
- Improving/updating data from existing sources, and
- Modifying select data transformations and assumptions used in evaluating nutrient inputs.

We hope the Management Board, Goal Implementation Teams, and various workgroups find the recommendations outlined in this review report to be useful, and we look forward to your feedback. STAC respectfully requests a written response from the Agricultural Workgroup by January 10, 2016.

Please direct any questions you may have about this report and its recommendations to Rachel Dixon, Coordinator of the Chesapeake Bay Program's Scientific and Technical Advisory Committee, and Gene Yagow (Virginia Tech), chair of the review panel.

On behalf of the entire STAC, thank you again for your consideration, and we look forward to working with you closely on this in the future.

Sincerely,

Lisa Wainger
Chair, Chesapeake Bay Program's Scientific and Technical Advisory Committee