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
http://www.chesapeake.org/stac/

March 26, 2015

RE: STAC Peculiarities of Pervious Cover Workshop Report

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

Cc: Management Board; Water Quality Goal Implementation Team; Urban Stormwater Workgroup; Land Use Workgroup; Forestry Workgroup; Modeling Workgroup.

Dear Mr. DiPasquale,

Please see the attached STAC workshop report entitled, "The Peculiarities of Pervious Cover: A Research Synthesis on Allocating Pollutant Loads to Urban Land Uses in the Chesapeake Bay." This report provides a summary of STAC's April 22-23, 2014 workshop and includes specific recommendations identified by workshop attendees.

The purpose of this report is to ensure that a scientifically credible approach is taken to develop urban land use/cover data to inform the suite of Chesapeake Bay Program models and associated tracking and accounting system. The specific objective was to make recommendations on where and how to allocate pollutant loads from various urban land uses/covers to improve the simulation of the urban sector in Phase 6 of the Chesapeake Bay Watershed Model (CBWM). Some of the recommendations include:

- No further subdivision of impervious cover is warranted on the basis of general land use, given that the loads are not different at the watershed scale (with the exception of the proposed transport land use sub-category).
- It is not advisable at this time to differentiate connected/disconnected impervious cover in the CBWM. This is due to the lack of generalized spatial information on impervious cover type, necessitating on the ground surveys to make this distinction.
- A small group should be formed to develop operational methods to allocate sediment and nutrient loads to the urban stream corridor, and make corresponding reductions to target loads for impervious and pervious cover. It is also recommended that the methods should

be piloted in the limited "data-rich" urban watersheds in the Bay watershed, such as Difficult Run in Virginia and/or Baltimore City/County streams.

- Several critical research projects are needed to improve our understanding of urban nutrient inputs that should be completed during the Midpoint Assessment to better simulate them in the Phase 6 model.
- While new pervious land sub-categories made sense in theory, it would be impractical to implement in Phase 6 due to a lack of source information and mapping capability.
- Urban tree canopy should be considered as either (a) a unique category of pervious land, (b) a pervious land use layer, or (c) treated as an urban BMP, depending on the science available. More work is needed from the FWG (Forestry Work Group) and LUWG in the coming months to recommend the best approach and develop guidelines for its implementation.

We hope the Water Quality Goal Implementation Team and various workgroups find the results of the workshop to be useful as the goal team moves forward in their attempt to allocate pollutant loads from various urban land uses/cover in the CBWM, and STAC looks forward to your feedback. STAC respectfully requests a written response to the workshop findings and recommendations from the CBP Management Board Chair by Tuesday, May 26, 2015.

Please direct any questions you may have about this report and its recommendations to Natalie Gardner, the Chesapeake Bay Program's Scientific and Technical Advisory Committee Coordinator, and lead report authors, Tom Schueler of Chesapeake Stormwater Network and David Sample of Virginia Tech.

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

Sincerely,

Kirk Havens
Chair, Chesapeake Bay Program's Scientific and Technical Advisory Committee