Dr. Chris Pyke, Chair
Scientific and Technical Advisory Committee
US Green Building Council
2101 L Street, NW Suite 500
Washington, DC 20037

Dear Dr. Pyke:

Thank you for the opportunity to respond to STAC's workshop report entitled, "The Role of Natural Landscape Features in the Fate and Transport of Nutrient and Sediment". I also wish to express my appreciation to STAC for organizing this very informative workshop in March 2012, which provided an opportunity to those presenters who were new to the Chesapeake Bay Program to share their insights into this issue.

Overall, we agree with the key recommendations highlighted in this report, as natural landscape features are important to the delivery of nutrients and sediment in the Chesapeake Bay watershed. However, it's important to note that because the recommendations may be difficult, time consuming, and expensive to implement, there is a need to establish realistic goals.

The Chesapeake Bay Program partnership is currently engaged in several activities leading up to the 2017 midpoint assessment process, which will help us determine if our nutrient and sediment pollution reduction goals are being met, as defined by the 2010 Chesapeake Bay TMDL and the Bay jurisdictions' Watershed Implementation Plans. One of the priorities as a result of this midpoint assessment process is to improve the spatial, temporal, and categorical representation of urban, agricultural, federal, and natural land uses in the Chesapeake Bay Program suite of modeling tools and develop loading rates for these land uses.

We agree with the recommendation to map riparian forest, forested floodplains, and other wetlands. Ideally, these three land uses could be mapped and parameterized appropriately to adequately evaluate their effectiveness in the landscape based on spatially explicit landscape and forest condition attributes. Along these lines, the USGS is developing a new base map of streams and shorelines from the 1:24,000-scale National Hydrography Dataset and using it with time-series land cover data to develop a stratified sampling framework for assessing and monitoring riparian forest extent and change using high-resolution aerial imagery. The USFS and USGS are developing freely available image classification software for use in mapping riparian forests and impervious surfaces from aerial and satellite imagery. The Chesapeake Bay Program's Land Use Workgroup will be investigating near-term methods for mapping floodplains in the watershed using information from county Soil Surveys and 30m-resolution Digital Elevation Models. These initial floodplain maps can eventually be replaced with those derived from LiDAR imagery where it is available and processed. We look forward to working with STAC over the coming years to encourage this research and develop methods to describe these processes.

The Chesapeake Bay Program will continue to move in this direction of gathering fine scale landscape data, incorporating new land uses, and refining the simulation of these features. The Water Quality Goal Implementation Team and the Modeling Workgroup are prioritizing the refinements to the Chesapeake

Bay Program Watershed Model and will need to balance the needs of management and recommendations from STAC, identifying areas where these interests overlap.

Please extend my thanks to the review steering committee and external reviewers for the time and effort involved in the thoughtful production of this report. We appreciate the role of STAC in serving as an independent review body in improving our overall management of the Chesapeake Bay restoration effort.

Sincerely,

Larry Merrill, Chair
Chesapeake Bay Program Water Quality Goal
Implementation Team

Cc: Chesapeake Bay Program Partnership Management Board, Chesapeake Bay Program Goal
Implementation Team Chairs