Proposed Objectives and Organization of the Agricultural Modeling Subcommittee

April 11, 2013

Purpose:

The Chesapeake Bay Program's Agriculture Workgroup (AgWG) has identified the need to provide enhanced agricultural modeling assistance to support the workgroup's Expert Review Panels, as well as to the workgroup directly on technical decisions regarding the development of the Phase 6 modeling tools for the TMDL Mid-Point Assessment in 2017. In addition, the opportunity to potentially collaborate and/or coordinate with other agricultural national modeling tools and efforts may provide new opportunities to represent agricultural production and management. There is a realization that these multiple goals presently exceed the capacity of the AgWG and other technical assets of the Chesapeake Bay Program partnership structure.

The AgWG membership has elected to establish an agricultural technical resource subcommittee to address the above identified technical needs of the panels and the workgroup. Entitled the Agricultural Modeling Subcommittee (AMS), the work of the subcommittee will immediately focus on the existing Chesapeake Bay Program tools including the Scenario Builder database tool and the Watershed Model which rely on implicit and explicit assumptions regarding agricultural data, and the fate and transport of nutrients through agricultural lands and waterways. The subcommittee will also coordinate with USDA agencies to utilize data and information from alternate agricultural models and tools to support not only the immediate needs of the workgroup panels, but also in developing recommendations for the Phase 6 modeling suite to be used post-2017.

The AMS will be supported by the Agriculture Workgroup, and as such will communicate directly to the Chair, Coordinator, and members of that workgroup for guidance and direction. The recommendations stemming from the AMS will be made available to the associated panels of the workgroup, as well as to the Agriculture Workgroup itself, for assisting in representing agricultural production, conservation practices and land uses through a modeling perspective to the best of the partnership's ability.

Objectives:

1) Provide agricultural modeling support to the Agriculture Workgroup's Expert Review Panels, coordinate cross-modeling support between the Chesapeake Bay Program Office and USDA agencies, and assist with the development and review of panel recommendations.
2) Review current agricultural data inputs to Scenario Builder and the Watershed Model. Consider recommendations for new or improved data sources resulting from the Agriculture Workgroup's 2013 Modeling Workshop. Make recommendations for data sources to be used post-2017.
3) Review current Scenario Builder and Watershed Model assumptions related to the fate and transport of nutrients on agricultural lands. Some specific assumptions that will be studied include: the placement of excess manure on agricultural lands; timing and applications of nutrients; percent of land available for manure application; etc. Make recommendations to the

Agriculture Workgroup for new algorithms or process assumptions related to the fate and transport of nutrients on agricultural lands to be used post-2017.

4) Coordinate with USDA agencies to identify opportunities to collaborate or integrate with USDA modeling tools and databases for providing sources of agricultural data, alternative modeling structures and analysis methods.

Organization:

The Agricultural Modeling Subcommittee will enlist the services of technical experts in the agricultural modeling and academic science fields from across the watershed. Experts from state agencies, federal agencies and universities will be needed to support the technical needs of the workgroup's panels, assess the Chesapeake Bay Program's modeling tools technical assumptions, conduct analysis using additional watershed models, and recommend changes to the existing tools. This group of experts would also call upon additional experts for particular technical presentations or analysis when needed. Recommendations from the group will be provided to and reviewed by the Agriculture Workgroup for approval or disapproval prior to being incorporated into the modeling tools.

Membership:

Last Name	First Name	Affiliation	Position
Dell	Curtis	USDA-ARS/NRCS	Chair
Johnston	Matt	UMD	Coordinator
Dubin	Mark	UMD	AgWG Rep
Volk	Jenn	UDE	DE Rep
York	Dana	Private Consultant/MDA	MD Rep
TBD	TBD	TBD	NY Rep
Evans	Barry	PSU	PA Rep
Brosch	Chris	VT	VA Rep
Basden	Tom	WVU	WV Rep
Meisinger	Jack	USDA-ARS	Federal Rep
Weller	Don	SERC	Academic Rep
TBD	TBD	NRCS	Federal Rep