

Ag Inputs into the Phase 6 Chesapeake Bay Watershed Model

Summary of Concerns

July 2020 AgWG Action: Loretta Collins will reach out to the state jurisdictional members to curate a list of issues to be addressed related to Phase 6 watershed model ag inputs before release of CAST-21. An ad hoc group will be formed to discuss these issues, seek resolution, and bring recommendations back to the AgWG.

Are there any issues related to the agricultural inputs to the watershed model (CAST) that you would like discussed that are not included in the CAST-21 workplan?

From MD:

- We believe that there should be a better way to estimate the number of livestock by working directly with the dairy and equine industry. We are not sure if there's a better way to estimate beef production due to the lack of a cohesive organization(s) representing this sector. The reduction goal attributed to some of our counties is viewed as unattainable due to the real-world demographics of some livestock (i.e. poultry mortality, waste management).
- We believe that the use of our Nutrient Management Annual Implementation Report (AIR) or other means (USDA-FSA crop reporting) would be a valuable source to quantify annual crop production.
- We believe that it would be beneficial to engage with our state chemist office to better understand fertilizer sales and use data.

From NY:

- Animal unit/acre ratios seem overestimated for counties that are partially within the watershed – other methods for estimating animal numbers, especially for partial counties, should be explored.
- Consideration of an additional category of cover crops for nutrient and sediment loss crediting: Commodity Cover Crops with Manure (not inorganic fertilizer). NY sees this as primarily an opportunity to further encourage and credit cover cropping in forage-based dairy cropping systems. Likely requires expert panel support to determine BMP efficiencies.
- Reconsider nutrient management BMP credit options and/or inorganic fertilizer rates for pasture. Likely requires expert panel support to re-evaluate BMP multipliers/efficiencies.

From PA:

- **Dairy Precision Feeding*** – revisit the criteria for this practice to incorporate the use of Milk Urea Nitrogen (MUN) as a proxy for measurement of implementation of precision feeding in the dairy industry

- **Rotational/Prescribed Grazing*** – revisit the criteria for this practice to incorporate state regulatory and / or state technical standards as a means of determining implementation
- **Cover Crop*** – revisit the criteria for commodity cover crop (harvested, nutrients applied), as they are inadequately credited for the value they bring to reducing nutrient and sediment runoff
- **Manure Transport / Manure Treatment Technologies*** – revisit the requirement to apply Nutrient Management to offset an assumed “backfill” of inorganic application does not adequately reflect current practice
- **Heavy Use Area Protection (NRCS 561), Loafing Lot Management, and Barnyard Runoff Control** – Address the issue of Heavy Use Area Protection (HUAP) not being credited. It should be a synonymous BMP to Loafing Lot Management, yet is not identified. According to NEIEN reports, HUAP is not a permissible BMP.
- **Nutrient Management on Pasture** – revisit the prohibition of crediting Nutrient Management on pasture / non-cropland acres.

** Phase 3 WIP outlines a number of Agriculture BMPs that require “further coordination” in order to fully credit those practices.*

“Further coordination needs to occur to: continue documentation of currently undocumented practices; continue coordination with the Partnership to achieve credit for additional practices and programs that achieve water quality improvement in Pennsylvania and that are not currently credited in the Chesapeake Bay Watershed Model; and document completion of the CAPs.” (p.33 – [Final PA Phase 3 WIP](#))