

**Guidance for Submission of Documentation Needed to
Address the Phase 6 Nutrient Management BMP Language Agreed to by the
Chesapeake Bay Program Partnership**

February 7, 2017

BACKGROUND

During its November 28, 2016 conference call, the Chesapeake Bay Program Partnership's Water Quality Goal Implementation Team (WQGIT) approved the Phase 6 Nutrient Management BMP Expert Panel's un-amended Final Report and recommendations dated October 18, 2016, along with the inclusion of the following language to be inserted into a separate Appendix G to the final Panel report:

Where book values are used in lieu of site-specific manure or soil analyses, the jurisdiction's program must be sufficiently conservative to ensure that implementation of the standard process is sufficiently restrictive to be protective of water quality.

Jurisdictions reporting book value based nutrient management for credit in the Chesapeake Bay Program's modeling system must provide a description and justification documenting how their program, including the methods for calculating the book values, meets this standard as part of their EPA approved BMP verification program plan.

The EPA Chesapeake Bay Program Office was charged by the WQGIT with the responsibility for developing, in direct consultation with members of the Phase 6 Nutrient Management BMP Expert Panel and other recognized experts, a clear set of guidance on the level, type and scope of data and documentation that a jurisdiction needs to submit to fully address the above adopted language. The below guidance directly reflects detailed input from several Panel members, jurisdictional representatives on the Agriculture Workgroup, the Agriculture Workgroup Coordinator, and the Watershed Technical Workgroup Coordinator.

REQUESTED EVALUATIONS AND DOCUMENTATION

Default Soil-Test Phosphorus Values and Book Values for Manure Nutrient Analysis

There are two distinct and fundamentally different components of the agricultural nutrient management process that are encompassed by this guidance. The first component is soil testing for assessment of phosphorus (P) availability from the soil to the growing crop. The second component is the nutrient analysis of manure to be applied to cropland. For a given farm operation or portion of a farm operation, site-specific data may be available for only the first component (soil-test P), only the second component (manure nutrient analysis), neither component or both components.

If soil samples are not collected from a field or management unit and analyzed for soil-test P, then an assumed, or default, soil-test P value must be utilized in the nutrient management planning and reporting process.

If a manure nutrient analysis is not conducted for the manure to be applied to the cropland at a specific site, then an assumed, or book value, manure nutrient analysis must be utilized in the nutrient management planning and reporting process.

Use of Soil-Test P Default Values and Manure Nutrient Book Values in Manure Management Plans

To address the question as to whether a jurisdiction's program is sufficiently conservative considering their reliance upon soil-test P default values and manure nutrient book values, the jurisdiction is asked to provide EPA with documentation on how many of manure management plans (numerically and by acreage) segregated by the primary livestock and poultry species on the operation, were developed and are being implemented by utilizing one of the following methods:

- 1) Use of default soil test P and default manure values;
- 2) Use of default soil test P and site-specific manure nutrient analysis;
- 3) Use of site-specific soil test P values and default manure values; or
- 4) Use of site-specific soil test P values and site-specific manure nutrient analysis.

EPA believes that in order to provide evidence of the conservative nature of its program, a jurisdiction needs to clearly demonstrate that a significant number of producers' manure management plans which utilized manure nutrient book values also utilized the default soil-test P value option, which programmatically incorporates a presumption of high soil-test P status and restricts phosphorus applications to a crop-specific annual crop removal rate.

The jurisdiction is asked to provide EPA with documentation of how the percentages of the population of manure management plans that were developed utilizing the input soil and manure nutrient data sources described above were derived.

The jurisdiction is also asked to provide documentation describing the process by which, in the absence of available Phosphorus soil nutrient analysis, what default process can be implemented by making what specific assumptions about Phosphorus soil residual and selection of crop specific annual Phosphorus removal rates as part of the Manure Management planning process.

Use of Manure Nutrient Book Values for Manure Management Plans

To address the question as to whether the use of the respective land grant university's manure nutrient concentration book values are sufficiently conservative, the jurisdiction is asked to provide EPA with documentation describing the basis for how the published manure nutrient values were derived. The documentation will describe the numeric and statistical range of analytical manure nutrient values for nitrogen and phosphorus by species, and the statistical methods utilized to derive the manure nutrient values published by the respective land grant university. The documentation should also describe the source(s) and relative age of the analytical manure nutrient data.

CREDITING N AND P NUTRIENT MANAGEMENT

This guidance is directed towards determining the use of book values to support crediting of core nitrogen (N) and P nutrient management based on the language in Appendix G. Supplemental nutrient management BMPs for both N and P have been defined by the Phase 6 Nutrient Management Expert BMP Panel as representing advanced site-specific assessments and applications of N and P management tools that result in a verifiable implementation of a change in planned N and/or P application rates, N and/or P application timing, or N and/or P application placement which may result in a N and/or P Supplemental Nutrient Management BMP loss reduction credit(s). Jurisdictions will need to provide separate documentation through their BMP verification programs demonstrating such changes in application rates, timing, and placement.