

November 20, 2019

Dear Mr. Martin, Ms. Dalmasy, and Ms. Koon:

Thank you for your September 26, 2019 memo requesting to re-convene the Best Management Practice (BMP) Verification Subcommittee, as well the identification of several concerns with the current BMP verification protocols and procedures that were established by the Chesapeake Bay Program (CBP) partnership. As you know, the overarching goal of establishing the BMP verification protocols are to strengthen compliance programs and to inspect and maintain BMPs so there's a maximum return on investments to meet water quality standards in the Chesapeake Bay.

Development of the CBP partnership's BMP verification protocols was a complex and intensive multi-year effort. The CBP partnership convened both a BMP Verification Committee and BMP Verification Review Panel to establish source sector-specific verification principles, procedures, and protocols. Those protocols were the result of the National Academy of Sciences' National Research Council's May 4, 2011 report entitled, *Achieving Nutrient and Sediment Reduction Goals in the Chesapeake Bay: An Evaluation of Program Strategies and Implementation*. The Committee and Panel were charged with addressing several deficiencies noted by the National Research Council in the consistency, reliability, and accuracy of BMP data tracked, reported, and collected by the jurisdictions to the CBP partnership. That charge was completed with the release of the 2014 document entitled, *Strengthening Verification of Best Management Practices Implemented in the Chesapeake Bay Watershed: A Basinwide Framework* that was approved by the CBP partnership's Principals' Staff Committee. The intent of this document is to guide the jurisdictions in executing robust verification programs to ensure that BMPs are functioning properly and having their intended effect (i.e., water quality improvements).

In addition to the verification protocols established by the CBP partnership, EPA requires Quality Assurance Project Plans (QAPPs) for the collection and use of environmental data. This includes both wastewater and BMP data reported annually to the Chesapeake Bay Program office for use in the Watershed Model. The requirement for descriptions of the quality of the data and documentation of state and local verification and compliance programs are noted in the *EPA Chesapeake Bay Program Grant and Cooperative Agreement Guidance*, (see Chesapeake Bay Program Quality Assurance Guidelines and Requirements) and QA/R-5: EPA Requirements for Quality Assurance Project Plan at <http://www.epa.gov/quality1/qs-docs/r5-final.pdf>. EPA has a responsibility to ensure these QAPPs follow all applicable requirements established by statute and/or by the CBP partnership.

Upon reviewing your memo, it appears the concerns expressed in the document are largely focused on the BMP data that is submitted for the annual progress submissions and subsequent progress and verification assessments conducted by EPA. This includes 1) extending BMP design life; 2) crediting BMPs beyond 100% implementation; and 3) allowing multiple-counting of practices. While this would allow more BMP data to be included in the simulation, much of this data represents implementation that has already been accounted for in the calibration of the CBP partnership's Phase 6 Watershed Model. Crediting the BMP data again could skew modeled loading trends in a positive direction, but the results would not reflect current on-the-ground management actions to meet water quality standards. Ultimately, the standards for dissolved oxygen, chlorophyll a, clarity and submerged aquatic vegetation are measured by the tidal monitoring program, not through modeling tools.

The CBP partnership's BMP Verification Committee made nine recommendations to the jurisdictions that, if adopted, would yield robust levels of verification over time. At this time, the

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recommendations have been partially adopted through the jurisdictions' BMP verification program plans (aka QAPPs). Over the past several years, a significant number of EPA and CBP resources have been provided to the jurisdictions to support the development and implementation of their respective program plans in order for these plans to be consistent with the CBP partnership's established verification protocols. We understand that there will be challenges along the way and continued resources and technical assistance will be needed to ensure these verification programs are strengthened over time.

Prior to the memo's release, the CBP partnership's Watershed Technical Workgroup addressed the concerns (noted as #7 in the memo) with the back-out and cut-off procedures through additional documentation in CAST and simplified NEIEN error reports. The CBP partnership will explore taking the following actions to address the other concerns identified in the memo:

- To ensure consistency with CBP partnership's 2014 BMP verification framework document, EPA will provide further documentation of its procedures for conducting reviews associated with the annual submissions of BMP data for the progress assessment. Detailed procedures are currently available on the Chesapeake Bay Program site at https://www.chesapeakebay.net/channel_files/32642/sweeney_wqgit_2018progressverification_021119.pdf, 2/11/19 WQGIT meeting.
- Jurisdictions are expected to update their QAPPs when new data sources and methods become available which enable them to enhance reporting of existing or newly approved BMPs. The schedule for submitting these updated QAPPs to EPA is the same as the CBP partnership agreed-upon deadline for the jurisdictions' annual progress submissions (e.g., December 2 of each year).
- Further discussion amongst the CBP partnership is needed to determine the appropriate forum and group to explore any modifications to the BMP credit-life and duration protocols that were established by the BMP Verification Committee. At a minimum, any such group should be overseen and convened by the CBP partnership's Scientific and Technical Advisory Committee (STAC). STAC would work closely with the jurisdictions in that process but any revisiting and potential refinements of the BMP verification protocols should be handled by the CBP partnership's scientific experts.

We understand that updating QAPPs and adhering to the BMP verification protocols are resource intensive and we continue to investigate ways to introduce efficiencies to this process (similar to what the CBP partnership's SAV Workgroup has done through the potential use of satellite imagery to collect SAV data). Thank you again for raising these BMP verification concerns and issues and I look forward to future discussions on these matters.

Sincerely,

Dana Aunkst
Chair, Management Board