

MAY 12, 2014 REVISED DRAFT-SUBJECT TO REVISION

Strengthening Verification of Best Management Practices Implemented in the Chesapeake Bay Watershed: A Basinwide Framework

Report and Documentation from the Chesapeake Bay Program Partnership Water Quality Goal Implementation Team's BMP Verification Committee



Chesapeake Bay Program
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Chesapeake Bay Program Partnership

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Executive Summary

The Chesapeake Bay Program Partnership and the public at large must have confidence in scientific rigor and transparency of the Chesapeake Bay TMDL and Watershed Implementation Plans accountability system which are built, in part, on crediting nutrient and sediment pollutant load reductions based on reported practices. The Partnership must be fully responsive to calls by the Partnership's Citizens Advisory Committee, the National Academy of Sciences, the President's Executive Order, and others to make improvements in the transparency and scientific rigor of our efforts to verify the implementation of these nutrient and sediment pollutant reducing technologies, treatment techniques, and practices. Therefore, we must build this rigor and transparency for verification up through the Partnership and out through our many local partners who have pollutant load reduction implementation responsibilities.

Verification Role in Bay and Watershed Restoration

The Partnership must view verification as the means to strengthen our confidence in local implementation efforts to ensure they are designed to help land owners, municipalities, and facility managers take the actions necessary to protect their properties, lands, riparian habitats, and local streams. Practices which are not properly installed and functioning as designed *don't* prevent local flooding, protect sources of drinking water, ensure against the collapse of stream banks, and support local economies through the return of clean water and viable habitats suitable for recreational activities. The Partners must have confidence that these reported practices are actually being implemented, are functioning, and are reducing pollutant loads. Implementation of the verification protocols described here will not only increase public certainty in the reported practices, it will help ensure those practices are operating in the intended ways to carry out these local benefits and reduce nutrient and sediment pollutant loads to local streams and Chesapeake Bay tidal waters.

Must Fully Account for All Pollution Reduction Efforts

There is also a growing, increasingly vocal demand for the tracking and reporting of nutrient and sediment pollutant load reducing practices, treatments, and technologies to expand well beyond the sources and cost share programs the Chesapeake Bay watershed jurisdictions have traditionally relied upon—state agricultural departments and environmental agencies, USDA, and county conservation districts. Counties, municipalities, non-governmental organizations, private sector third party consultants, technical certified planners, businesses, agricultural producers, and even individual homeowners are now implementing and reporting on nutrient and sediment pollutant load reducing practices. One of the primary areas of concern expressed by all seven watershed jurisdictions and many local stakeholders regarding the accountability under the Chesapeake Bay TMDL is receiving credit for nutrient and sediment pollutant reducing practices implemented outside of state or federal regulatory programs without the benefit of state or federal cost share funding.

Changes Needs to Existing BMP Tracking and Reporting Programs

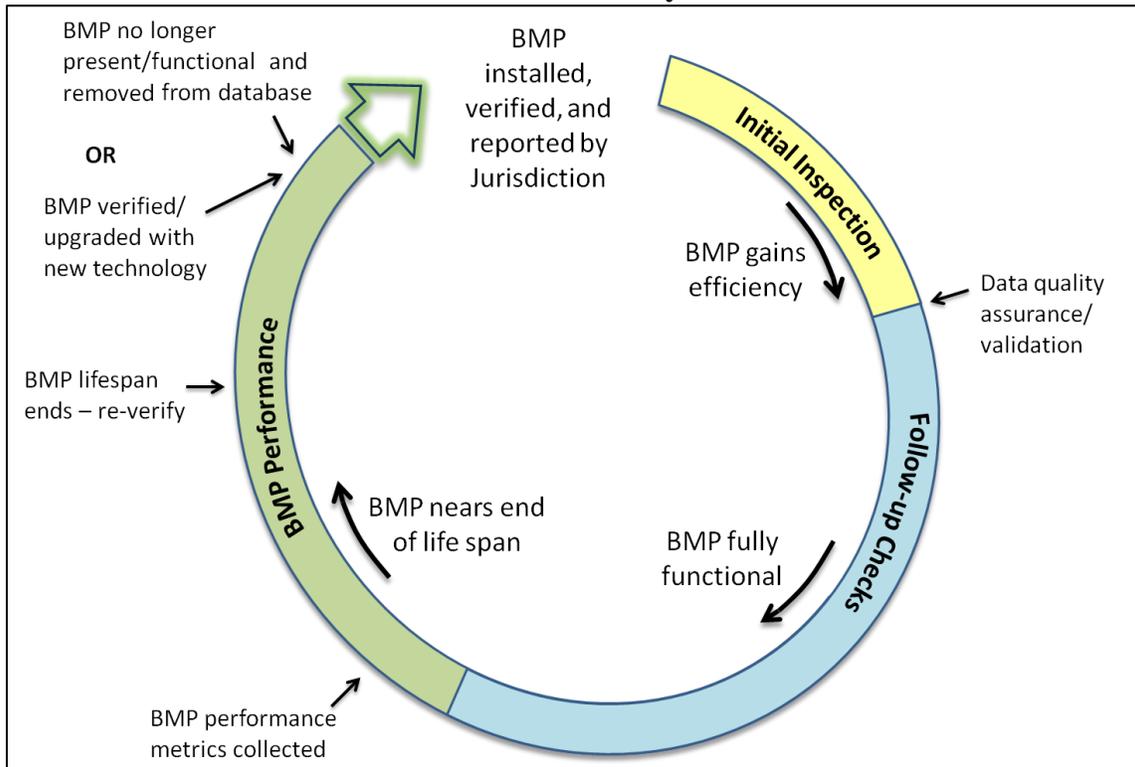
The five BMP Verification Principles adopted by the Partnership recognize the need for changes and enhancements and the opportunity to build from existing local, state, and federal jurisdictional BMP tracking and reporting programs. There are local, state, and federal programs with strong BMP verification programs in place and working effectively in carrying out the principles. However, the Partnership recognizes none of our seven jurisdictions' existing BMP

tracking, verification, and reporting programs, across *all* sectors and habitats, fully achieves all five principles.

BMP Verification as a Life Cycle

Within its BMP verification principles, the Partnership has formally defined verification “as the process through which agency partners ensure practices, treatments, and technologies resulting in reductions of nitrogen, phosphorus, and/or sediment pollutant loads are implemented and operating correctly.” The Partnership’s BMP Verification Review Panel has recommended the Partnership view verification as a life cycle process, including initial inspection, follow-up checks, and evaluation of BMP performance (Figure 1).

Figure 1. Illustration of the BMP Verification Life Cycle



Basinwide BMP Verification Framework

The Chesapeake Bay basinwide BMP verification framework is defined by 12 elements, key among them being the five BMP verification principles, the Partnership technical sector workgroup’s verification guidance, the BMP Verification Review Panel’s recommendation documentation of the jurisdictions’ enhanced BMP tracking, verification, and reporting programs, and commitments to ongoing evaluation and oversight. This basinwide BMP verification framework applies across *all* local, regional, state, and federal agencies and facilities, institutions, and organizations involved in the implementation, tracking, verification, and reporting of practices for nutrient and sediment pollutant load reduction crediting.

Developing Enhanced Jurisdictional BMP Verification Protocols and Programs

In the process of developing new and revising existing BMP tracking, verification, and reporting protocols and programs, the jurisdictions are strongly encouraged to consult the four products

and extensive recommendations developed by the Partnership's BMP Verification Review Panel. The Panel recommended the jurisdictions focus on:

- Taking full advantage of their choice to vary to the level of BMP verification based on the relative importance of a specific practice to achieving the jurisdiction's Watershed Implementation Plan nutrient and sediment pollutant load reduction targets.
- Grouping the hundreds of BMPs they be tracking and reporting into categories that make sense for each jurisdiction and then develop and document the appropriate protocols and procedures followed for each logical grouping of BMPs.
- Structuring their verification programs to carry out an initial inspection for answering the question "is the BMP there?" and then follow-up checks carried out at the appropriate frequency to answer the question "is the BMP still there and operating?" throughout the lifespan of the practice.
- Providing documentation on procedures in place which prompt the need for conducting a follow-up check of a BMP at the end of its approved lifespan and for removing BMPs which go beyond their lifespans and are not follow-up checked to confirm the BMP is still there and operational.
- Having written procedures in place for assuring the quality of the data for which they are now accountable for, which includes any practice data report to them by other local, regional, and federal agencies, and non-governmental organizations.

Ensuring Ongoing Evaluation and Oversight

The Partnership has committed to a suite of ongoing evaluation and oversight procedures to ensure the five BMP verification principles adopted by the Partnership are adhered to and effectively carried out: amending Partnership BMP Protocol to address BMP verification; amending the Chesapeake Bay Program Grant Guidance to reflect BMP verification; annual reviews of progress data submissions to confirm verification of each submitted practice; annual reviews of the jurisdictions' quality assurance plans by EPA; periodic audits of the jurisdictions' verification programs by EPA; and independent evaluations, at the request of the Partnership, conducted by the Partnership's three advisory committees.

Implementation of the Basinwide Framework

The Partnership has committed to carry out a series of actions, processes, and procedures to ensure full, basinwide implementation of the BMP verification framework equitably across all jurisdictions, source sectors, and habitats. The Partnership will use the two years following Principals' Staff Committee adoption of the basinwide BMP verification framework as the period within which to ramp up the jurisdictions verification programs and make necessary internal adjustments and adaptations for implementation of the basinwide BMP verification framework. In the first full annual progress reporting cycle coming two years after the date of adoption of the basinwide BMP verification framework by the Principals' Staff Committee, those reported practices, treatment, or technologies for which documentation of verification has not been provided for through each jurisdictions' NEIEN-based report systems will not be credited for nitrogen, phosphorus or sediment pollutant load reductions for that year.