Chesapeake Bay Program Verification of Best Management Practices Protocol

What is the Verification Protocol?

The Chesapeake Bay Program is making moves to improve transparency and accuracy of Best Management Practice (BMP) reporting when it comes to the verification of these practices. This includes the requirement that each Bay state develop and implement a Verification Protocol for BMP's by June 23rd, 2015. A copy of the framework can be found at the following site, which contains links to download the executive summary, technical appendices and verification guidance documents for each sector.

http://www.chesapeakebay.net/about/programs/bmpverification

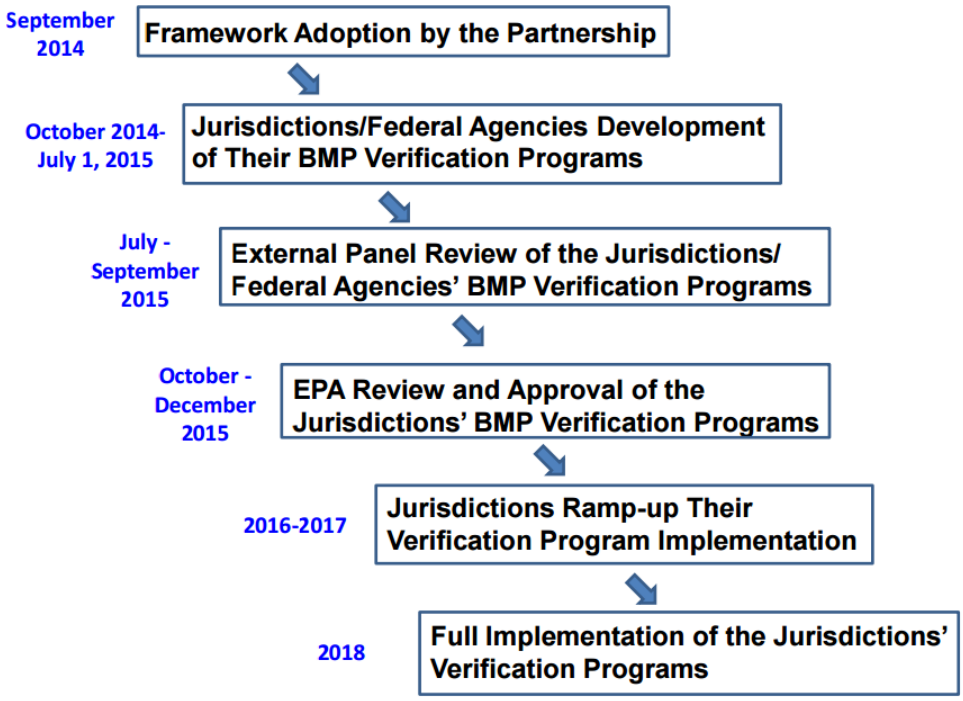
Why?

This is due largely to public calls made by the Partnership's Citizens Advisory Committee, the National Academy of Sciences, the President's Executive Order, and others, to increase public confidence that reported practices are actually implemented, are functioning, and are actively reducing nutrient loading. The National Academy of Sciences reported that "The committee was unable to determine the reliability and accuracy of the BMP data reported by the Bay jurisdictions," leading to the development of the Verification Protocol.

When?

The Partnership is requesting that jurisdictions follow the general timeline for development and implementation as seen in Figure 1 below. The next step will be to meet individually with those responsible for BMP reporting to address the elements of the verification framework.

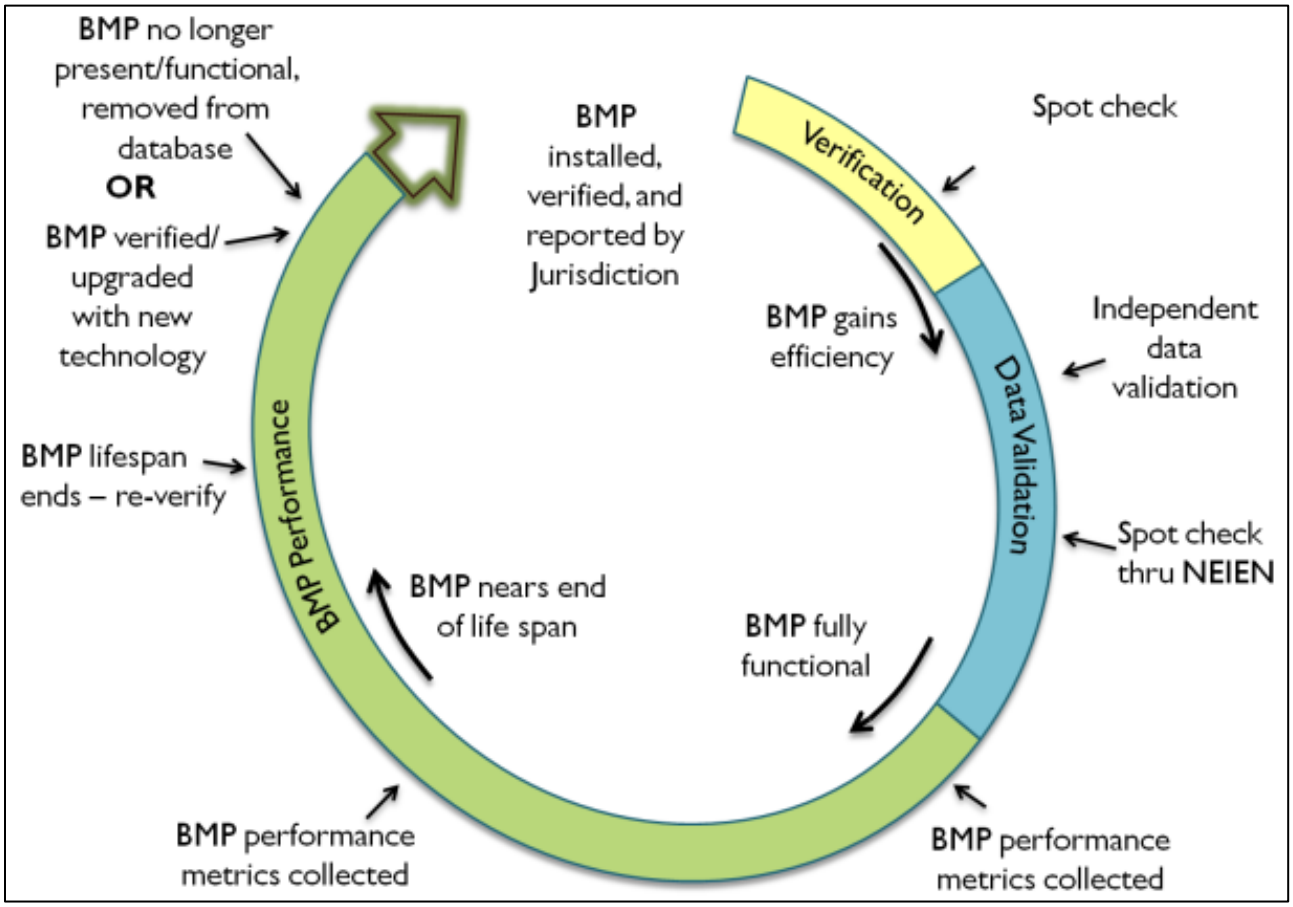
Figure 1. Timeline of BMP Verification Protocol development and implementation (Source: Rich Batiuk Sept 2014 Verification Webinar).



How?

It has been recommended by the Partnership that the states view verification as a life cycle process, as seen in Figure 2 below. This life cycle includes verification, data validation, and performance evaluation. Verification is where agency partners ensure practices, treatments and technologies resulting in reductions of nitrogen, phosphorus, and sediment pollutant loads are implemented and operating correctly. The second part of the life cycle is data validation which refers to the review of the submitted data to determine if the data was collected, compiled, and submitted correctly and that issues of double counting and the clean-up of historical data have been addressed. The third part of the life cycle is performance outcomes, focused on the systematic collection of data to be used to ensure the BMPs are working as expected and to help further refine the pollutant reduction efficiencies into the future.

Figure 2. Illustration of BMP Verification Life Cycle



The Chesapeake Bay Basinwide BMP Verification Framework contains twelve specific components:

1. BMP verification principles
    - Practice reporting
    - Scientific rigor
    - Public confidence
    - Adaptive management

    - Sector equity
2. BMP Verification Review Panel
3. Source sector and habitat specific BMP verification guidance
    - Agriculture
    - Forestry
    - Urban stormwater
    - Wastewater
    - Wetlands
    - Streams
4. Practice life spans
5. Ensuring full access to federal cost-shared agricultural conservation practice data
    - Data sharing agreements in place for all 6 states and all agencies involved in reporting
    - Credit conservation technical assistance
    - Hold USDA agencies accountable to commitment to enhance data reporting
    - Common protocols and schedule for annual accessing of federal cost- shared data
6. Enhance data collection and reporting of federally cost shared practices
    - Focused on practices implemented without cost share and not covered by a regulatory program
    - Crediting practices that meet CBP or NRCS definitions and standards and CBP approved "Resource Improvement Practices" implemented w/o public cost-share funds
    - A number of USDA conservation practices were identified in Table 8 and described below as having substantial limitation in the amount of data available for translating between USDA conservation practice codes and Partnership approved practice definitions.
7. Accounting for non-cost shared practices
    - Account for agricultural conservation practices implemented throughout the Chesapeake Bay watershed, including those practices funded solely by the farmer, not funded by state or federal cost share funding or required by regulation
8. Preventing Double Counting
    - Specifically between State and USDA reported practices
9. Clean-up of historical BMP databases
10. Partnership processes for evaluation and oversight
    - Amend Partnership BMP protocol to address verification
    - Amend CBP Grant Guidance
    - Annual reviews of progress data submissions
    - Annual EPA reviews of changes to jurisdictions' quality assurance plans
    - Periodic EPA audits of jurisdictions' BMP verification programs
11. Expectations for development and documentation of jurisdictional BMP verification programs
12. Communications and outreach
    - Online news features
    - Press releases
    - Editorials
    - Social media releases and messaging

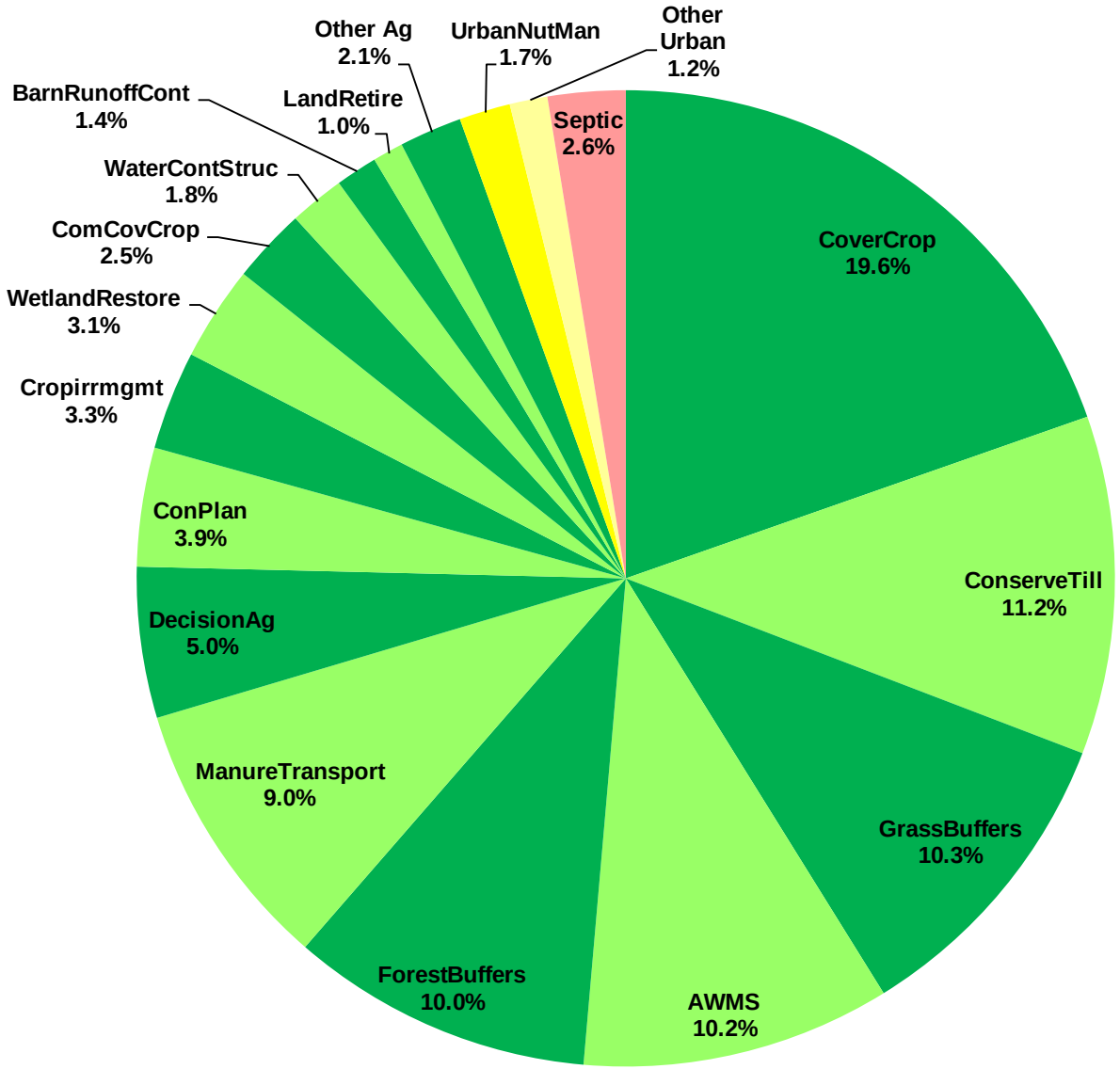
- Photo essays and video products
- Web-based resources
- Supporting print materials
- Webinars, training sessions, and workshops

BMP Targeting and Prioritization

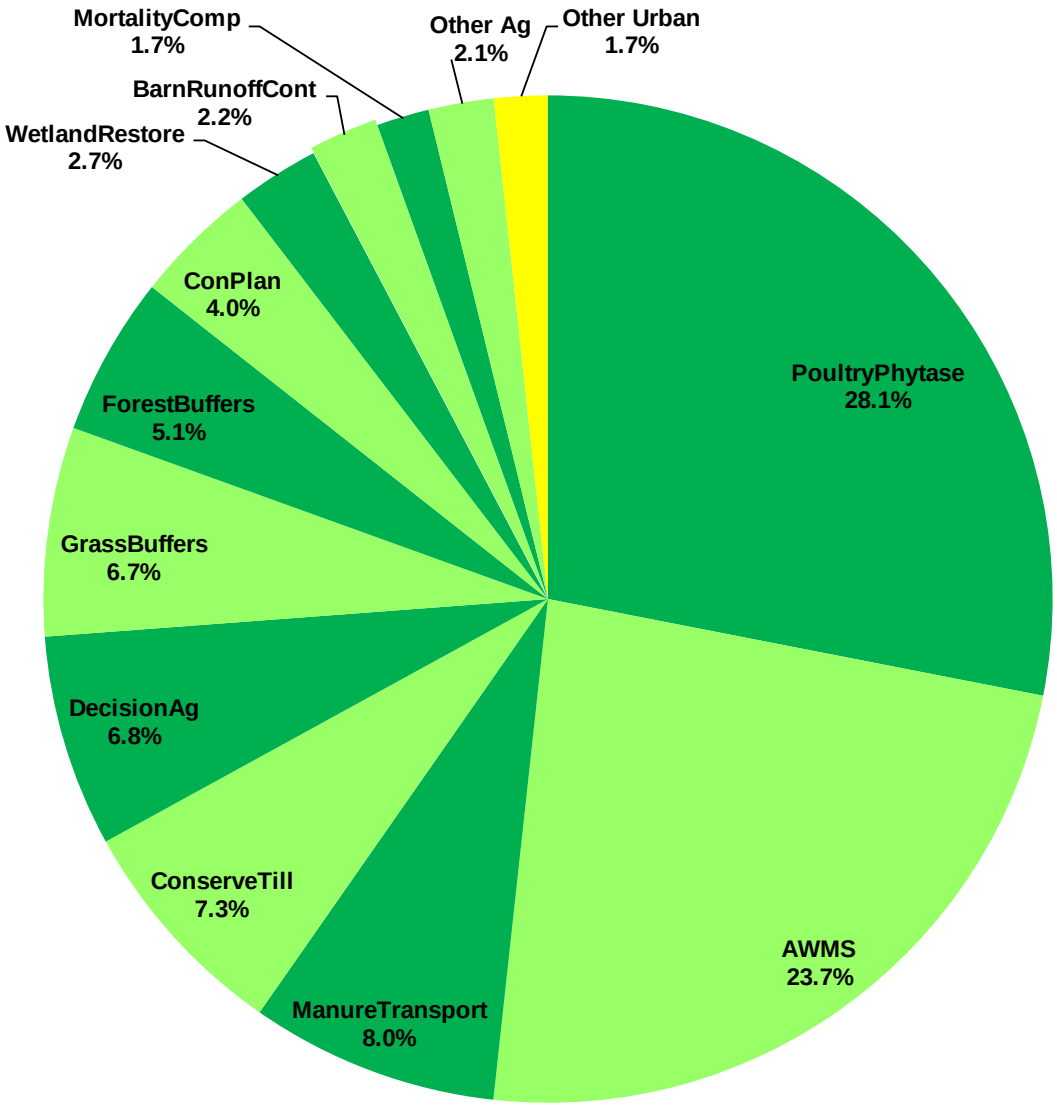
These pie charts found on the following pages (referred to as "watermelon charts") are showing you the BMPs from the Phase II WIP input deck that will get Delaware to achieve the TMDL targets by 2025. This pie chart shows where most of reductions are expected to come from by sector. Not every BMP is included, just those BMPs anticipated in the WIP input deck to get the largest amount of reductions. EPA is not holding states to specific BMP commitments, and is asking jurisdictions to meet overall loads.

- Green represents Ag BMPs,
- Yellow represents urban BMPs
- Pink represents septics
- Red represents wastewater

Relative contribution to WIP-planned Nitrogen load reduction among BMPs



Relative contribution to WIP-planned Phosphorus load reduction among BMPs



Relative contribution to WIP-planned Total Solids load reduction among BMPs