



CBP Partnership's BMP Verification Review Panel's Findings and Recommendations to Date

CBP WQGIT BMP Verification Committee

January 28, 2014 Meeting

Dana York, Chair

CBP Partnership's BMP Verification Review Panel

Verification Definition

The CBP Partnership has 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.”

1. CBP BMP Verification Principles. December 5, 2012.

CBP Verification Principles

- Practice Reporting
- Scientific Rigor
- Public Confidence
- Adaptive Management
- Sector Equity

Verification Tools Provided

The following have been provided by the Panel to the six workgroups, BMP Verification Committee, and seven jurisdictions:

- A. BMP Verification Program Design Matrix
- B. Jurisdictional BMP Verification Program Development Decision Steps for Implementation
- C. State Verification Protocol Components Checklist
- D. Panel's Comments on Workgroup's Protocols

Verification Tools

ATTACHMENT A

Chesapeake Bay Program Best Management Practice Verification Program Design Matrix

A. Program Component	B. Program Elements	C. Program Element Options
j. BMP Verification	1. What was the driver for BMP Installation?	Regulation, Cost-share, Non-cost-share
	2. How many BMPs will be inspected?	All, percentage, subsample, those targeted
	3. How is the frequency and location of inspection?	Statistics, targeting, low available funding
	4. How often BMPs inspected?	
	5. What is the inspection criteria?	
	6. Who will inspect and certify/track?	

ATTACHMENT B

Jurisdictional BMP Verification Program Development Decision Steps for Implementation

Below are the 14 steps for each Chesapeake Bay watershed jurisdiction to consider when developing their jurisdiction's BMP verification program. Under each step are questions for consideration which will prompt decisions that may be needed to develop jurisdiction's verification protocols.

1) Determine what BMP's to collect:

- Do you want to collect all BMPs that were listed to in your jurisdiction's Phase II WIP? Additional/or some of
- Do the listed BMPs meet the jurisdiction's Best Management Practice (CBP) definition?
- Do you want to report on BMPs that meet NRCS standards for sediment pollutant load reduction?
- When collecting the data, will you use the same criteria as the NRCS standards?
- For reported BMPs, are you going to determine (example: date, fertilization if any)

ATTACHMENT C

State Protocol Components Checklist

State Protocol Components Checklist				
	State:			
	Sector:			
	BMP Verification	Present	N/A	Comments
1	BMP's Collected			
	Type (Structural, Management, Functional Equivalent, Etc)			
	BMP Funding/Cost shared (Federal, State, NGO, Non-cost shared)			
	Distinct State Standards/Specifications			
	Matching CBP Definition/Efficiencies			
2	Method/ System of Verification/Assessment			
	Description of Methods/Systems To Be Used			
	Documentation of procedures used to Verify BMP's			
	Instruction Manual for system users			

Transparency

Panel recommends the Partnership be transparent about addressing transparency

- Supports strengthened addendum to existing public confidence verification principle
- Recommends independent verification/validation for aggregated data to ensure transparency is maintained
- Supports commitment to make reported BMP data publically accessible while conforming to legal privacy restrictions

Federal Cost Shared Practices

Panel recommends the following for ensuring full access to federal cost shared practices:

- Consistent, comprehensive 1619 data sharing agreements in place between NRCS and each of the six states
- Request state access to NRCS Chesapeake Bay CEAP information

Ensuring Full Credit

Panel recommends the following for ensuring full credit for federal cost shared practices:

- NRCS and FSA agreements to ensure their national reporting systems collect the additional data needed by states to receive full credit for federal cost shared practices at highest level of pollutant load reduction efficiency
 - Examples—collecting information on: buffer width and location relative to local streams; animal types; and the timing, type of seed, and method of planting cover crops

Crediting Non-cost Shared Practices

Panel recommends Partnership adoption of procedures for defining functional equivalent practices and associated verification protocols

- Recommends providing jurisdictions with clear guidance for setting up verification methods for crediting non-cost shared practices as functionally equivalent
- Recommends establishing distinct practice standards/definitions within existing and future CBP approved BMP definitions

Addressing Data Credibility

Panel recommends the following to address and continually assure data credibility:

- Formal adoption of jurisdiction specific procedures for eliminating **doubling counting** within each jurisdiction's BMP verification program
- Formal jurisdictions' commitment to cleaning up their **historical BMP data** to the greatest extent possible
- **Data validation**, using independent reviewers, of all external data provided to the Partnership for use in the Partnership's model and other decision support tools

Expectations for Workgroups

- Focus on providing the jurisdictions' guidance, not detailed protocols
- Use the urban stormwater workgroup's narrative as a model to follow
- Use the verification program design matrix in developing guidance for:
 - BMP verification
 - Data validation
 - BMP performance

Expectations for Workgroups

- Challenged workgroups to:
 - Aim high
 - Group practices, verification options
 - Define how to verify and at what frequency
 - Address inspection frequency for functional equivalents
 - Provide guidance on intensity of verification choices
 - Confirm cross walks between CBP approved BMPs and federal (e.g., NRCS)/state (e.g., stormwater regs) practice design standards
 - Establish practice life spans

Expectations for Jurisdictions

- Use state protocol checklist as guide for Panel's expectations during review of the jurisdictional verification programs
- Address certification/training of verifiers in their verification programs
- Aim high or explain why
- Prioritize verification towards priority practices
- More intense on-site review of BMPs potentially results in less intensive spot-checking
- Build in time for continuous improvement early on

Expectations for Committee

- Ensure adoption of consistent nomenclature and accepted definitions for:
 - Independent Review
 - External Independent Review

See page 6 of the Panel Recommendations document for the Panel's recommended detailed definitions drawn from wording used by the National Academy of Sciences, U.S. Environmental Protection Agency, and U.S. Army Corps of Engineers in their conduct of reviews.

Expectations for Committee

- Seek to strengthen the jurisdictions' ability to verify CBP defined BMPs:
 - Assure BMP's have distinct definitions/standards to verify against
 - Build consideration of verification into BMP expert panel process
- Further strengthen commitment to transparency
- Provide functional equivalent guidance
- Treat cost-shared and non cost-shared practices the same in terms of applying privacy restrictions

Expectations for Committee

- Provide partners with access to statistical design expertise
- Work with STAC to develop and implement a longer term process of collection, analyzing and using scientific evidence to assist in quantifying the performance of BMPs

BMP Verification Life Cycle

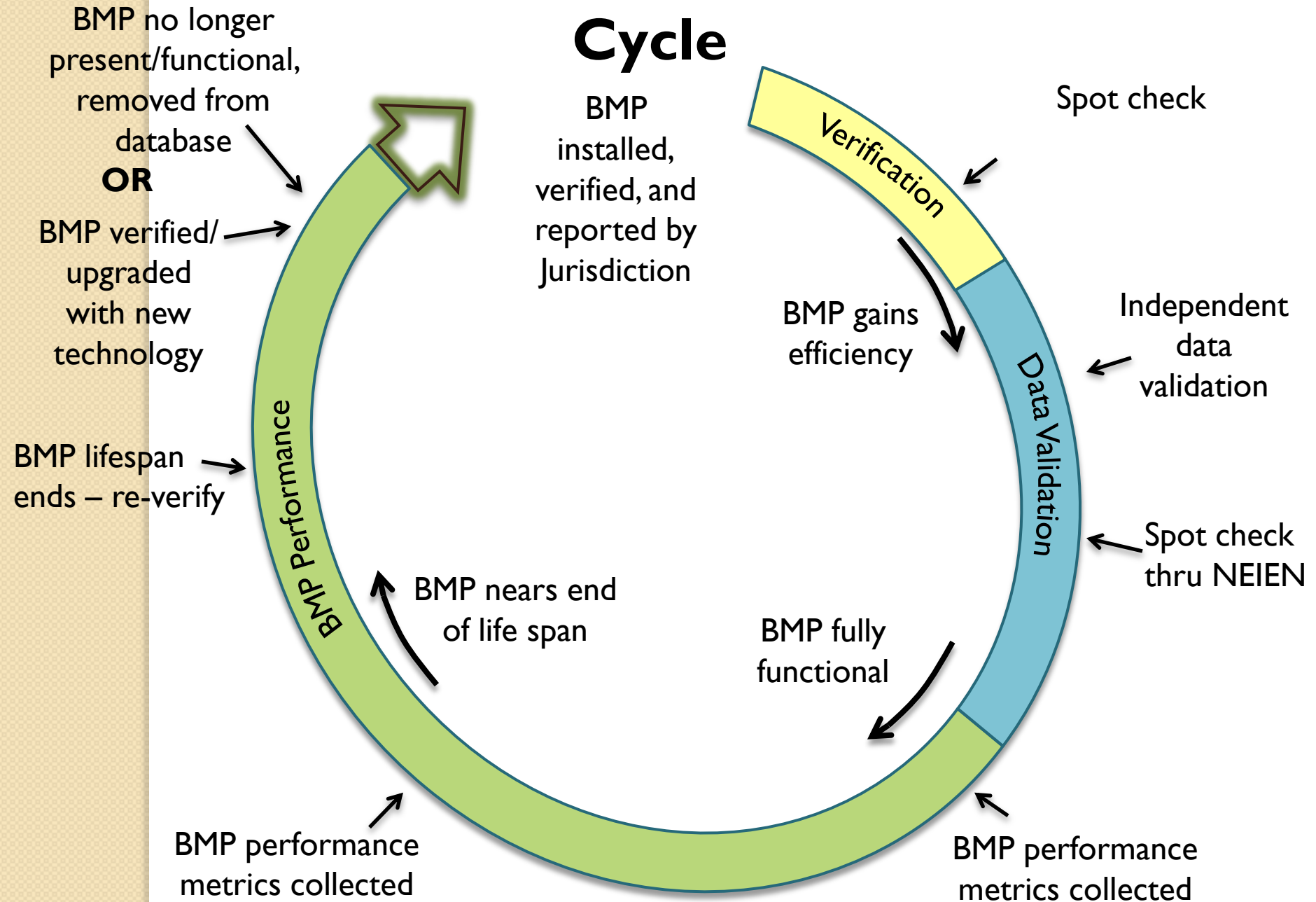


Illustration of Diversity of Verification Approaches Tailored to Reflect Practices

Sector	Inspected	Frequency	Timing	Method	Inspector	Data Recorded	Scale
Stormwater	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State
Agriculture	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State
Forestry	All	Statistics	<1 year	Monitoring	Independent	Water quality data	Site
	Percentage	Targeting	1-3 yrs	Visual	Regulator	Meets Specs	Subwatershed
	Subsample	Law	3-5 yrs	Aerial	Non-Regulator	Visual functioning	County
	Targeted	Funding	>5 yrs	Phone Survey	Self	Location	State

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