



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

CBP Scientific and Technical Advisory Committee

December 3, 2013 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...                                   |   |
|                      | 6. Who will inspect and certify/train?              |   |

## 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:

- a) Do you want to collect all BMPs that were listed to in your jurisdiction's Phase II WIP? Additional/or some of
- b) Do the listed BMPs meet the Chesapeake Bay Program (CBP) definition?
- c) Do you want to report BMPs that do not meet NRCS standards for sediment pollutant load?
- d) When collecting the data, do you want to include BMPs that are not reported?
- e) For reported BMPs, are you going to do a determination (example: date, fertilization if an

## ATTACHMENT C

### State Protocol Components Checklist

| State Protocol Components Checklist |  |         |     |          |
|-------------------------------------|--|---------|-----|----------|
|                                     | State:   |         |     |          |
|                                     | Sector:  |         |     |          |
|                                     | BMP Verification   | Present | N/A | Comments |
| <b>1</b>                            | <b>BMP's Collected</b>   |         |     |          |
|                                     | Type (Structural, Management, Functional Equivalent, Etc)      |         |     |          |
|                                     | BMP Funding/Cost shared (Federal, State, NGO, Non-cost shared) |         |     |          |
|                                     | Distinct State Standards/Specifications                        |         |     |          |
|                                     | Matching CBP Definition/Efficiencies                           |         |     |          |
| <b>2</b>                            | <b>Method/ System of Verification/Assessment</b>               |         |     |          |
|                                     | 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.

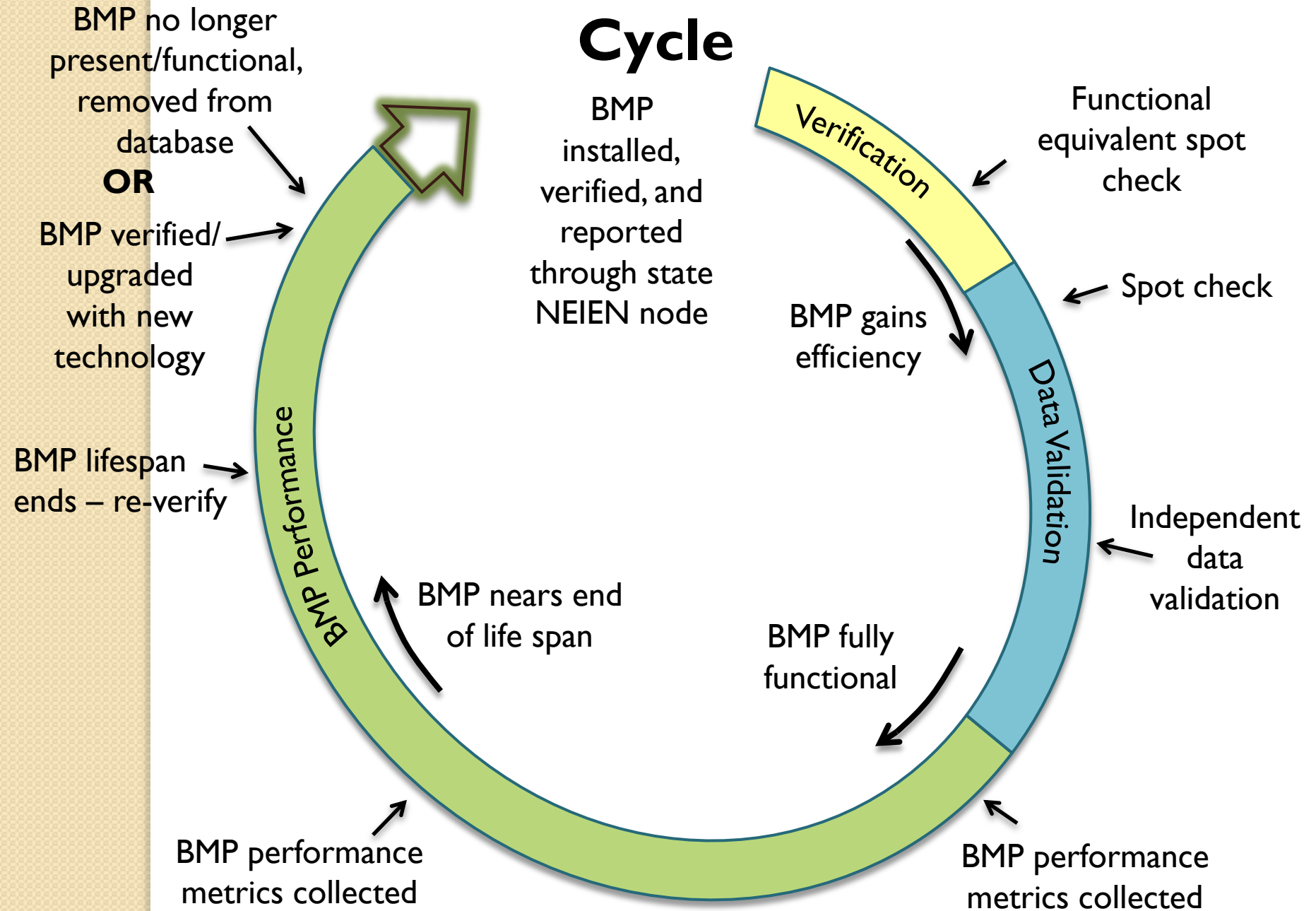
# Expectations for Committee

- 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        |

# Progress Since Last Spring

- ✓ **March 13** BMP Verif. Committee review of all 8 framework components; not ready for prime time
- ✓ **July 1** workgroups deliver draft verif. protocols
- ✓ **July 15** delivery of draft verif. framework document
- ✓ **Aug 28-29** Panel meeting
- ✓ **Sept-Oct** Panel works on suite of tools, recommendations
- ✓ **Oct 31, Nov 1** Panel conf calls to reach agreement
- ✓ **Nov 19** distribution of Panel recommendations

# Completing the Framework

- **Dec 10** BMP Verif. Committee meeting focused on briefing on Panel findings and recommendations
- **Dec 13** Workgroup chairs, coordinators briefed on Panel findings and recommendations via conf call
- **Feb 3** delivery of six workgroups' final verification guidance to Panel, Committee members
- **March 3** Panel and Committee members complete their review of workgroups' revised verif. guidance
- **March/April** Joint Panel/Committee meeting to finalize the basinwide BMP verification framework and all its components

# Framework Review Process

- **April-August 2014**
  - CBP Water Quality Goal Implementation Team
  - CBP Habitat Goal Implementation Team
  - CBP Fisheries Goal Implementation Team
  - CBP Scientific and Technical Advisory Committee
  - CBP Citizen Advisory Committee
  - CBP Local Government Advisory Committee
  - CBP Management Board

# Framework/Programs Approval

- Framework Approval
  - **Sept/Oct 2014:** Principals' Staff Committee
- Review of Jurisdictions' Proposed Verification Programs
  - **Fall 2014/Winter 2015:** Jurisdictions complete program development
  - **Spring/Summer 2015:** Panel reviews jurisdictional programs, feedback loop with jurisdictions
- Approval of Jurisdictions' Proposed Verification Programs
  - **Fall/Winter 2015:** Panel recommendations to PSC for final approval

# Evolving Panel Role

- Teaming up with BMP Verification Committee in spring 2014 for joint review of all components of the basinwide verification framework
- Reviewing the jurisdictions' draft BMP verification programs, providing feedback to jurisdictions, reviewing revised programs, and then making recommendations to the Principals' Staff Committee

# Bottom-Line Messages

- **Lands coverage:** jurisdictions will more accurately define lands covered by practices, account for progress, explain monitoring trends
- **Future WIP implementation:** more accurately determine where new practices are needed to meet milestone commitments and WIP goals

# Bottom-Line Messages

- **Future funding:** more accurately estimate cost-sharing, capital investments, financing, and technical assistance needed to meet milestone commitments and WIP goals
- **Societal Benefits:** providing credit to the wide array of implementers—from households to farmers to watershed organizations to municipalities—working to restore local streams, rivers, and the Bay

# **Dana York**

Chair

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BMP Verification Review Panel

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[http://www.chesapeakebay.net/groups/group/bmp\\_verification\\_review\\_panel](http://www.chesapeakebay.net/groups/group/bmp_verification_review_panel)