# Comments on the May 12, 2014 Revised Draft BMP Verification Framework Document, Agriculture

*Note: Direct edits or other comments provided as "track changes" in the draft report are not listed here. Comments or excerpts of comments are verbatim [with occasional insertions for clarification].*

(Hartley)

Pages 33 -51 [sic, page numbers may vary]: Formatting. Tables split across pages are difficult to follow. Suggest column headers on each page or other improved formatting.

**Response: The matrix tables have been divided into the three BMP type categories in support of the verification guidance documentation, and reduced in size and scope to make them easier to review.**

(Gieseke)

It is certainly a significant challenge to corral and align the jurisdictions, perspectives and objectives to achieve the desired and varied outcomes for the Chesapeake Bay Watershed. Also, accounting for individual BMPs across the landscape increases the complexity of the task. Within the sectors with less variable and dynamic land use activities, this strategy appears to be sufficient and doable. In other sectors, particularly agriculture, the strategy for accounting for individual BMPs within the context of a variety of other land management practices that vary both spatially and temporally, it becomes unwieldy.
In review of the two documents:
- Chesapeake Bay Program Partnership Agriculture Workgroup's Agricultural BMP Verification
Guidance
- Strengthening Verification of Best Management Practices Implemented in the Chesapeake Bay
Watershed: A Basinwide Framework,
and within the context of the above paragraph and adopted strategy, I think the definitions, methods, protocols and guidance in the documents adequately describe the extent of the tasks at hand.
Determining if the tasks are doable within the Ag Sector will depend on the ability of the jurisdictions to address Part 7 of the Ag Guidance document and the bullet points noted.
Part 7: Guidance for Development of an Agricultural Practice Verification Protocol

- Jurisdictions will select methods of documentation that provide adequate information about the BMP to enable independent spot-checks by appropriately trained individuals.
- Independent verification of BMP reporting programs and BMP implementation data will be addressed in state verification protocols.
- All reported BMPs, whether non-cost shared, cost shared, regulatory or permit-required, should have distinct, CBP-approved definitions, appropriate design

standards and/or indicators to enable accurate, reliable reporting of the BMP to receive the commensurate credit.

- Jurisdictions will develop a method to review data reported to the NEIEN submission system to ensure that it was accurately entered and submitted according to CBP guidance documents.
- Jurisdictions will develop a methodology to determine when and how to remove data from their BMP reporting system.

**Response: The recommendations from the BMP Verification Review Panel were used to assist in the development of the new revised documents. Additional work will be required by the partnership and the CBPO staff to enable the full implementation of the determined verification process.**

MDE

The Maryland Department of Agriculture has already commented on agricultural practices including, but not limited to, comments involving the need to inspect CAFO operations annually for credit. The state simply does not have the resources to perform this level of verification.

**Response: The minimum annual sub-sampling verification has been reduced from 100% to 20%, consistent with EPA CAFO program agreements with the jurisdictions.**

NRCS

Agricultural conservation systems, or best management practices (BMPs), are critical to Chesapeake Bay restoration efforts. NRCS recognizes the importance of BMP verification protocols in adequately and reliably crediting the contributions of the agricultural sector to these restoration efforts. These comments to the draft Chesapeake Bay Program Partnership Agriculture Workgroup's Agricultural BMP Verification Guidance (Guidance) seek to improve that product so that it properly reflects the policy and mission of NRCS as well as agency experience in assessing conservation practice effectiveness.

**General Comments**

As an agency with the mission to support voluntary conservation, NRCS does not have a mandate for direct verification activities beyond ensuring that agricultural producers are in compliance with the terms of the financial assistance contracts.

NRCS does have an interest in sharing information regarding agricultural BMPs, to extent that that information is shared in a manner consistent with the data privacy provisions of our authorities. We agree that collecting statistically accurate data for non-cost share practices, collecting a more comprehensive picture of environmental improvements, and performing quality control to eliminate double reporting are needed and worthwhile endeavors. NRCS can, and has, cooperated with our state partners for reporting of conservation practices as called for in sections 204 and 206 of the Executive Order.

We make the following recommendations:

- Data on non-cost shared practices that are reported via Toolkit into the National Conservation Planning Database are a valuable resource for jurisdiction efforts to account for BMPs. These practices are field verified and part of the NRCS Quality Assurance process.
- Jurisdictions should track and verify that farming operations still exist via agricultural survey information, county records, or aerial photo interpretation and GIS.
- Have landowners self-certify management or annual practices.
- Practices that will likely function beyond their lifespan such as riparian forested buffers, wildlife plantings and tree plantings should be verified using aerial photography and remote sensing technologies.
- Develop a method to eliminate land that has been converted from agriculture to another land use along with its associated conservation practices.

**Specific comments to sections of the document are provided below**:
The Agricultural BMP Verification Guidance Matrix V 4.1 (page 16-22) is unclear and needs to be explained. For example, what does it mean for something to be "potentially eligible?" Also the table headers should carry through to each page to make it easier to read.

**Response: The matrix document provides a more detailed description of the various methods of verification based on the three primary BMP categories, and is based on partnership input over entire the discussion period within the AgWG. A more simplified version of the matrix is represented by the Protocol Table, which has been recommended for use the BMP Verification Review Panel. The matrix was retained on request of jurisdictions to assist them in developing their detailed protocols.**

Chesapeake Bay Program Partnership Agriculture Workgroup's Agricultural BMP Verification Guidance (page 3-4) states, **"***From Visual assessment for single year BMPs, such as tillage practices, can be statistically sub-sampled utilizing scientifically accepted procedures. During the course of the identified physical lifespan period of multi-year BMPs, a reoccurring annual verification that the BMPs are being maintained and operated as per the appropriate practice standards at a minimum expectation for follow-up sub-sampling of 10% for BMPs achieving greater than 5% of the jurisdiction's WIP agricultural sector goal."*
Comment: This will require significant manpower and funds to complete. Ten percent review on all cost shared and regulated practices is very high. The NRCS spot check requirement is 5% of all practices applied in a given year to ensure quality on the practice application and is used to ensure the quality of the work of field staff. The recommended level of spot checking, double the samples from all practices rather than those applied in a given year would be divert significant resources that could otherwise be devoted to the planning and application of conservation practices.

For verification, it would be more efficient to use photo interpretation or remote sensing whenever possible to avoid physically driving to farms to look for practices on 10%. Recommend using landowner self-certification for annual practices.
NRCS is willing to share our national policy which requires a quality assurance plan in all states and requires specific spot checking.

**Response: The verification guidance documents note the potential need of some partners to assign additional resources to implement their verification protocol based on the guidance. This has also been noted by the BMP Verification Review Panel in their remarks. The revised guidance now includes specific language which addresses potential alternative approaches to minimum annual sub-sampling.**

From Pages 3 and 10

- *"Resource Improvement BMPs are practices* ***which provide an identical annual environmental benefit for water quality but which may not fully meet all design criteria*** *of existing governmental standards such as designed lifespan." (page 3)*

- *"Resource Improvement (non-specification) – Those practices which do not fully meet the applicable federal or state design specifications, and may have a shortened physical effective lifespan,* ***but will provide equivalent environmental benefits on an annual basis****." (page 10)*

NRCS follows science-based standards and specifications, and resource improvement BMPS are, by definition, not part of our standards and specifications. The BMP verification guidance may use any approach they desire, NRCS asks not to be associated with any method of verification that does not reflect our standards and specifications.

**Response: The guidance document's language regarding RI BMPs has been supplemented with information included in the FE/RI Technical Review Panel recommendation report, which is presently under AgWG review. NRCS representatives from across the region were technical participants on the panel, and contributed to the present report.**

From Page 4, "*The minimum expectation of verification for cost-shared BMPs is recommended to be 100 percent of the initial physical installation of annual or multi-year BMPs and plan implementation by trained and certified technical field staff or engineers with supporting documentation that it meets the governmental and/or CBP practice standards. During the course of the contractual oversight period involving multi-year BMPs, a reoccurring annual verification that the BMPs are being maintained and operated in accordance with the funding agency standards at a minimum expectation for follow-up sub-sampling of 10% for BMPs achieving greater than 5% of the jurisdiction's WIP agricultural sector goals*."
Comment: NRCS field offices verify 100 % of practices to ensure they meet NRCS standards and specification when USDA financial assistance is obligated.

NRCS state office or area personnel spot check a percentage of each type of practice within a year of installation according to state specific quality assurance plans this process meets NRCS contract oversight responsibilities.

**Response: The minimum initial inspection of cost-shared BMPs was developed based on current levels of verification being implemented by USDA and the jurisdictions.**

In the chart, *Draft Agricultural BMP Verification Guidance Matrix: Version 4.1* (page 16-22) It is unclear why the verification protocols such as remote sensing and farmer surveys would be not eligible to verify that practices already confirmed through the verification protocols as being implemented. Many practices that can be physically verified will remain in place and actively be used by participants as long as their farming operation doesn't change significantly. Also, most physical practices can be verified via aerial photographs and remote sensing. Verification based on a scale related to the environmental impact the practice offers makes sense. In addition, practices that require regular maintenance to function properly may need to be verified.

**Response: The guidance documents recognize the importance of remote sensing as a possible avenue for verification, but notes that ground truthing is required to accurately calibrate the resulting information. This procedure QA/QC is considered standard practice for existing scientifically-based remote sensing programs. The exclusion of self-certification was recommended by an ad hoc panel of experts under the AgWG, as it did not achieve the minimum levels of independent QA/QC procedures being implemented under the guidance. Instead, the guidance suggests that self-certification be used in coordination with other forms of verification to meet the minimum QA/QC levels.**

From *May 14th draft Strengthening Verification (larger) document* page 137, BMP Performance**:**
Comment: We have concerns about regulatory agencies pulling soil samples or doing the infield collection on projects where NRCS was the field contact. We have always been a voluntary organization working with landowners because we were invited to assist them by providing technical and financial assistance. Landowners must give permission to the people doing the data collection for BMP performance and be made aware the activities are being conducted by a different agency.

**Response: The methods that the jurisdictions will chose to implement for verification, and the entities that will be involved with those actions, will be determined by the jurisdictions themselves through their protocol documentation. Those protocols will be open for review and comment by the partnership prior to EPA approval.**

Montali

In our recent comments on the guidance proposed by the Agriculture Workgroup, we expressed concern regarding the follow-up inspection rate of 10% for federally cost

shared BMPs. We remained concerned about our ability to do more than is expected of, or deemed necessary by, the federal partners. We endorse the following concept, identified in the Wetlands guidance, to be applied universally to USDA cost shared practices, at least as the expectation for initial programs:

> *Inspection and maintenance frameworks routinely performed as part of state and federal agricultural financial assistance programs in the Bay watershed should serve as the foundation of each of the jurisdictions' wetland restoration verification protocols. If a state designs its wetland BMP verification protocols around existing inspection and monitoring frameworks associated with a financial assistance program, then those protocols or procedures are fully consistent with this guidance.*

**Response: The revised guidance now includes specific language which addresses potential alternative approaches to minimum annual sub-sampling.**

WV DEP

Thank you for the webinar last week on the agriculture BMP verification protocol. After reviewing the document, we have coordinated with WVDA and have the following comments:

If this is guidance, words like "will, must, required, only" should be replaced with words like "should, may, recommended, etc". With respect to transparency and clear messaging to the public, it is confusing to the public to use these words if these are "recommendations".

**Response: The revised guidance should now incorporate language that is reflective of a guidance document, and in addition more specific language which addresses potential alternative approaches, especially in reference to minimum annual sub-sampling.**

Visual assessment BMPs single year – verified annually – while the rationale for this is understood, the practicality of it is questionable. Thousands of acres are enrolled in various programs. Often once a farmer adopts the practice, it is continually implemented. The description in part 2a on page 20 seems to conflict with the information on page 21 which states that a statistical subsample can be utilized. Clarification is needed on the expectations for follow up on annual BMPs.

**Response: The revised guidance includes specific language which addresses the potential alternative approaches for statistical annual sub-sampling for single year BMPs in addition to individual farm verification. Existing protocols with national recognition are available separately, which are recommended for consideration by the jurisdictions.**

Visual Assessment Multi-year – It is our understanding that verification of forest buffers on agriculture land falls under the Forestry BMP verification protocol. If so, it is

confusing to list it as an example of a visual assessment multi-year agriculture BMP in the table on page 20.

**Response: The Visual Assessment Multi-year example referencing forest buffers has been removed in Table 2.**

We believe following the national protocol for initial verification and spot checks of cost shared BMPs should be sufficient. NRCS' practice of spot checking 5% of BMPs under contract per year has been developed in policy, is over-seen by national headquarters, and is developed and done by trained individuals who have not been involved with the layout or payment of the practice. This effort to ensure tax payer dollars are spent appropriately should be adequate to also ensure that the practice is still in place and functioning.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

Re: minimum expectation of verification for permitting programs – requiring 100% of permitted BMPs be verified annually is excessive and inconsistent with both WV's Region 3 EPA approved enforcement and compliance strategy and with the other sector BMP verification protocols. All other sectors have a maximum of 10% per year whether regulated or unregulated. It is also inconsistent with the other agriculture BMP categories within the guidance which only require 10% or 5%.

**Response: The minimum annual sub-sampling verification has been reduced from 100% to 20%, consistent with EPA CAFO program agreements with the jurisdictions.**

Clarification is needed on the verification expectations when a project transitions from cost share to non-cost share within the expected life span of the practice, such as an ag waste storage structure. Rather than having to conduct an initial verification inspection of those practices at 100%, we would recommend continuing with the previous spot checking subsampling methodology.

**Response: The jurisdiction can consider including language in their protocol which addresses this question. The initial inspection or identification verification for the practice could be referenced as part of the transfer from one verification method to the next.**

Roy Hoagland

You requested that I summarize for you the reasons for my objecting to the currently debated 5% (vs. 10%) verification proposal for USDA/NRCS cost shared practices.

The starting point for my objection is the Science Panel's guidance, which Dana has repeatedly quoted, setting forth the overarching concept for any state's verification program: "Aim high, explain why." (See the Panel's Nov. 19 Guidance: "Aim High or Explain Why.

The Panel asks jurisdictions to adopt the "robust" levels of verification described in the respective workgroups' guidance or explain
in their quality assurance plan why they cannot, recognizing the legal as well as funding issues that may impede high levels of verification.") Using a 5% level of inspection is hardly an "aim high" proposal.

Moreover, as reflected in the Science Panel document, as well as throughout the verification principles and processes, it is the state's role and responsibility to present a verification protocol which it believes is sufficiently "robust." It is not an argument for USDA/NRCS to make, nor for an NGO to make, nor for any other source upon which the state is relying as part of its verification program. If the state chooses to rely on a 5% inspection rate from USDA/NRCS, let it present to the Panel and to EPA its justification for why this is sufficient. Let it "explain why." For example, if the state presented evidence that there was statistical rigor with the USDA/NRCS 5% inspection program, then the state could potentially establish that it was sufficiently robust and it need not do a 10% minimum. While one state representative recently argued against this concept, alleging potential future EPA overreaching, other state representatives have embraced its legitimacy.

And with some states already doing, we are told, in general, 10% inspection levels for ag BMPs, to reach for the lowest common dominator of 5% makes no sense. (During our Ag Work Group verification revamp discussions, folks who have worked on-the-ground advised that a 10% spot check was or is the norm for verification in some states or districts; it is my understanding that this used to be the norm for USDA/NRCS, also.)

Add to this the fact that the basis for the USDA/NRCS 5% inspection was not an inspection scheme for water quality protection, pollution reduction performance, or natural resource improvement, but for financial audit purposes. The OMB report being used to justify the 5% review was a report looking at whether USDA was properly spending its money, not at whether it was achieving pollution reductions. It is my understanding that the practices included in the 5% that USDA/NRCS established for the OMB study were not the result of a random sample at all. The selected 5% were based on factors such as level of investment and difficulty of installation, for example. The current USDA/NRCS 5% selection process may well be consistent with this. My point: the USDA/NRCS 5% inspection process as established was irrelevant to the water quality focus of the verification process in which the CBP is engaged.

Finally, the 5% proposal does not pass the blush test for a new and improved verification system. In fact, it undercuts the very nature of the verification initiative which the CBP is conducting. To share with the public that the CBP believes, under its new and improved verification program, that an aggressive and state-of-the-art system for verifying that an agricultural practice is there and functioning is to examine randomly only 5 practices out of every 100, or 50 practices out of every 1000, leaving unexamined 95 or 950 practices, respectively, is ludicrous.

There is a possible solution to this debate which was suggested to me: EPA could hire an independent third party to evaluate the current USDA/NRCS process as it is applied in each state; the evaluator could make a determination if the 5% inspection for that state passes the necessary scientific rigor of the new CBP verification program as established by the BMP Committee and Review Panel.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

Virginia Comments

Item 1.

Virginia comments regarding the *Chesapeake Bay Program Partnership Agriculture Workgroup's Agricultural BMP Verification Guidance* document of May 9, 2014. Specifically addressing the requirement of reoccurring annual verification of 10% for BMP's achieving greater than 5% of the jurisdiction's WIP agricultural sector goals, in section 3.b. Cost Shared BMP's and section, 3.c Regulatory Programs.

Virginia is meeting the current inspection protocol established in the Bay Program's Quality Assurance Project Plan reporting requirements for reoccurring verification of BMP's of 5% of reported practices, through its BMP Cost Share program. Virginia also is inspecting 5% of the previous year's implemented BMP's per the Bay Program's QAPP reporting requirements. As the number of BMP's significantly increase from year to year and with the limitations of time and staff, this proposed verification requirement will become burdensome to the point it may adversely impact staff time to stay focused on BMP implementation. Increasing this verification inspection requirement will definitely take away significant resources that are currently dedicated to BMP development and installation.

Until such time as more resources (mainly-staff and the funding to support them) are available, Virginia is proposing three alternative processes to improve the effectiveness of the verification requirement, with limited resources. Each option listed represents a single process to be designated as the method used to meet the verification protocol.

1. Through analysis of the data submitted by the jurisdiction, determine the statistical significant sample number up to 10%, which is acceptable to have a verified sample number.
- The thought is here that, IF the analysis shows a lower percent of inspections is acceptable, the inspection work load could be more easily managed.

2. Identify BMP practices listed in each jurisdiction's WIP into three categories:
- Annual BMP's - Inspection required within practice specification meets verification standard
- Practices unlikely to fail - reoccurring annual inspection rate of 5%

- Vulnerable Practices – reoccurring annual inspection of 10%

Example of practices for Option 2 would be:

| | |
|---|---|
| Annual Practice - | Cover crop |
| Practices Unlikely to Fail - | Land Retirement, Animal waste systems, Irrigation Capture and Reuse |
| Vulnerable Practices – | Pasture Fence, Prescribed grazing, Conservation tillage, Nutrient Management Plans |

- This option takes limited resources for inspection and focuses them on practices that have an increased possibility of not consistently being implemented or maintained to practice specifications.

3. Initiate reoccurring annual inspections including all BMP'S at 10%

While any BMP can fail, as BMP programs and the practices within them are established, there is an expectation that the landowner is committed to proper installation and operation and maintenance of the BMP through its lifespan and perhaps beyond its life span if installation and maintenance have been above standard through its lifespan.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

Item 2.

During the Agricultural BMP verification webinar it was alluded to that the Chesapeake Bay Program Partnership Agriculture Workgroup's Agricultural BMP Verification Guidance, was just that a guidance document. However a comment was made, that it can easily be adopted as a standard for reporting by EPA. Addressing the issue of the 10% verification for follow-up inspections, language stating that states can develop their own standard for determining the number inspections with justification needs to be part of the language in the document. So the language on page 4, under section 3.b. Cost-Shared BMP's, could read as follows:

> "The minimum expectation for verification for cost-shared BMP's is recommended to be 100 percent of the initial physical installation of annual or multi-year BMP's and plan implementation by trained and certified technical field staff or engineers with supporting documentation that it meets the governmental and/or CBP practice standards.
> During the course of the contractual oversight period, involving multi-year BMP's, reoccurring annual verification that the BMP's are being maintained and operated in accordance with the funding agency standards at a minimum expectation for follow-up sub sampling of 10% for BMP's achieving greater that 5% of the jurisdiction's WIP agricultural sector goals. *As an alternative, a jurisdiction may choose to develop a specific verification sample level designed to achieve an acceptable sub sample set. This alternative sampling level will be accompanied by justification*

*for the request and be approved by the BMP Verification Panel* (or whatever panel/committee is appropriate).

**Response: The revised guidance now includes specific language which addresses potential alternative approaches to minimum annual sub-sampling.**

Item 3. a.

In Part 7: Guidance for Development of an Agricultural Practice Verification Protocol, the third paragraph talks about "spot-checks by appropriately trained individuals". (bottom of page 8) The next paragraph (top of page 9) deals with "Independent verification" and states that "Quality assurance personnel should be independent of those involved in the original BMP reporting, and not directly involved with the entities responsible for the initial implementation of the BMP's."
My question is - are the "appropriately trained individuals" and the "quality assurance personnel the same people OR are these two different groups serving specific purposes? If they are the same people, then we could not use the people we currently use to do verification, because most times they are involved in some part of the BMP's design/installation process.

**Response: Currently under consideration by the AgWG's ad hoc verification team.**

Item 3.b.

In the PowerPoint presentation given during the CBP Agriculture Workgroup Webinar, slide 11 talks about the "Verification Guidance Highlights" and discusses two categories- Independent Review and External Independent Review. Is this Independent review the same as the independent verification discussed in the guidance document?
Also, External Independent Review is discussed in the PowerPoint presentation. I was not able to find any discussion of this in the guidance document. Is this a level of verification above that which the guidance document addresses or does it just identify another entity doing similar verification?

**Response: Currently under consideration by the AgWG's ad hoc verification team.**

PA NRCS

**Page 2:**
"Was the practice implemented to satisfy a regulatory requirement or was it implemented voluntarily?"
Comment: The report indicates that this is one of the key factors critical to building a verification protocol for agricultural BMPs. However, since participation in all NRCS programs is voluntary (whether it allows a producer to satisfy a regulatory requirement or not), this factor may not provide the desired purpose. If the purpose of this question was to screen BMPs that a landowner installed without any state, NRCS, or TSP technical

assistance and therefore could possibly be deficient in its function, then this question needs to be re-worded. The voluntary aspect of NRCS conservation practices does not influence the reliability of the reported information.

**Response: The statement has been modified to reflect those practices which can potentially fall under federal or state regulatory oversight (i.e. nutrient management plan), and those practices which are external to that oversight.**

**Page 2:**
Part 2 first sentence: "The Partnership approved agricultural ….."
Comment: Should this say "The Partnership agreed agricultural….."?

**Response: The recognition of all BMPs stems from the CBP partnership approved "BMP Protocol" process to approve BMP definitions and contributions to nutrient and/or sediment reduction values.**

**Page 3 Table 2:**
Comment: Prescribed Grazing may not be identifiable solely by visual assessment under 2b and would be an example of 2c.

**Response: Grazing management BMPs have now been grouped under the Visual Assessment Multi-year category based on professional expert recommendation. Farm records have been identified as an important element of all verification assessments, with the exception of Visual Assessment Single year BMP statistical surveys.**

**Page 3:**
3a "As a result, establishment of verification systems similar to those for publically funded or regulated practices will be needed."
Comment: Systems should not have to be similar, but should allow for other approaches or methodologies, such as farmer self-certification and/or remote sensing, if the verification results provide statistically valid and/or equivalent results.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

**Page 3:**
3a "identical annual environmental benefits for water quality"
Comment: It may be difficult to prove that "resource improvements" provide an identical annual environmental benefit for water quality compared to NRCS conservation practice standards and specifications.

**Response: Alternative language from the RI Technical Review Panel recommendation report has replaced the above draft verification language on RI BMPs.**

**Page 4**
3b. The minimum expectation of verification for cost-share BMPs here and throughout the document:

"….minimum expectation for follow-up sub-sampling of 10% for BMPs achieving greater than 5% of the jurisdiction's WIP agriculture sector goals."

Comment: A follow-up sampling requirement of 10% is not feasible or necessary for NRCS conservation practices. A jurisdiction does not have authority to place additional requirements on the federal government, nor is it necessary. All NRCS practices should be treated in the same manner as described under the first paragraph in section 3b Cost-Shared BMPs. Additional scrutiny of NRCS conservation practices is not needed just because they make up a larger portion of the jurisdiction's goals. NRCS practices are inspected and certified upon completion. In addition, NRCS Government Manual Section 450-407 policy on documentation, certification, and spot checking requires 5% minimum sampling for spot checks. In reality, through NRCS's everyday work and the quality control quality assurance process, more than 5% of the conservation practices would most likely be scrutinized. All conservation practices included in the NRCS reporting system should be identified as exempt from 10% verification since conservation practices included in the NRCS reporting system are subject to the NRCS 5% spot checking policy.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

**Page 5**

3c Regulatory programs

"…regulations differ by state, there are differences in oversight by federal, state, and local agencies across the Bay watershed."

Comment:

The word "federal" should be removed from this sentence. There is not any difference in oversight between NRCS across the Bay watershed since federal agencies only provide oversight over federal requirements (such as highly erodible land compliance). If this section refers to another federal agency, it should be specifically named.

**Response: The word "federal" has been removed from the sentence.**

**Page 8**

6d. Lifespan and Sunsetting Practices

Comment:

It may not be feasible for a state to conduct a follow-up check of every conservation practice included in the historical dataset. In addition, implementation dates and location information for every NRCS conservation practice would be protected under Section 1619 and inspection of these practices would require a 1619 agreement with NRCS. In addition, NRCS does not have conservation practices mapped in its digital data base before 2003. However, checking to ensure that conservation practices still exist could possibly be completed by remote sensing if the process began now using recent data and proceeded into the future. This would also require a 1619 agreement and trained staff to review records and interpret the remote sensing.

**Response: The revised guidance now includes specific language which addresses potential alternative approaches to minimum annual sub-sampling.**

NY/Upper Susquehanna Coalition

Please find comments from Aaron Ristow of the Upper Susquehanna Coalition (USC) and me on the draft Ag BMP Verification Guidance. Our comments are submitted in the spirit of continuing to support (and often balance) quality planning, implementation, and operation of conservation practices on farms with more accurate, consistent characterization of those Ag sector conditions for TMDL model evaluation. Thank you for facilitating these discussions and guidance concepts.

1. Once initial verification is established (100%), the annual sub-sampling should mirror NRCS' and OMB's analyses and subsequent policy by requiring 5% (not 10%) verification of BMPs submitted for progress. Such a shift would deliver the following improvements over the current draft:

- match existing verification efforts within NRCS programs to maximize coordination and minimize confusion;
- provide BMP data at a quality adequate for Scenario Builder and Watershed Model resolution; and
- allow conservation professionals and farmers more time for conservation work (BMP system planning, implementation, operation, and follow up) that results in water quality improvements.

Note, the shift from 10% to 5% is also implied or directly indicated in the following comments, relative to the draft guidance document.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

2. BMPs on permitted and regulated farms (e.g., CAFO permitted farms) should be sampled with the same protocol as on non-permitted/regulated farms and not as a separate population for the reasons in Comment 1, above.

**Response: The minimum annual sub-sampling verification has been reduced from 100% to 20%, consistent with EPA CAFO program agreements with the jurisdictions.**

3. We support that the document is written as a guidance document to allow necessary flexibility for jurisdictions to adopt verification protocols that provide quality data for modeling in coordination with (and with minimal interference of) conservation work on farms. For example, jurisdictions may have long-running, science-based, stakeholder developed frameworks for continuous improvement in Ag conservation; for consistency and efficacy, jurisdictions may prefer to perform BMP verification in concert with those tools and approaches.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

4. Part 3a: BMPs installed under cost-share contracts and operated after the contract close-out should only require 5% follow-up sub-sampling after the contract close-out, because they were initially checked at the 100% rate at close-out. As it currently reads, it seems like those practices become non cost-shared practices once the contract closes and would need to be verified a second time at 100%, before moving to the 5% annual sub-sampling rate.

**Response: The current guidance includes minimum annual sub-sampling which may or may not be the same as USDA standards. An alternative sub-sampling strategy language has been added for 3a-d.**

VA-DCR

Virginia understands and supports the need to standardize BMP verification across the Chesapeake Bay watershed. VA has followed an EPA approved Quality Assurance Project Plan (QAPP) since at least 2005. This QAPP requires Virginia to perform follow up verification inspections on 5% of the previous year's BMPs implemented and 5% of all BMPs that are within their contractual lifespan. Virginia feels that the "Draft Agricultural Verification Guidance" currently being proposed is not clearly communicated or ready for acceptance. As a result Virginia is submitting these written comments about language contained in section **3b. Cost-shared BMPs** of the Ag. Workgroups BMP verification Guidance document.

Specifically Virginia is concerned about the language contained in the paragraph titled: **The minimum expectation of verification for cost-shared BMPs**. We understand and support 100 percent initial physical installation of annual or multi-year BMPs. We inspect 100% of our cost-shared BMPs inspection during our BMP practice certification process prior to issuing a cost-share payment. However, it is the requirement of 10% annual verification for BMPs achieving greater than 5% of the jurisdictions WIP agricultural sector goals that concerns us. Based upon many years of performing verification inspections we feel that there is no reasonable basis for demanding 10% annual follow up inspections and that this requirement will reduce Virginia's ability to implement additional practices towards meeting the WIP goals due to an excessive amount of time being necessary to meet the verification goals. Virginia does not have the staff resources to conduct this number of verification inspections annually.

Virginia has dramatically expanded both its BMP Cost-share Program funding and implementation of BMPs in the last ten years as part of its efforts to restore the Chesapeake Bay. Ten years ago in 2004 Virginia allocated less than $500,000 for Ag BMP implementation, those funds implemented 1,769 ag. BMPs that benefitted 68,156 ag. acres. In 2013 (last data year available) Virginia allocated over $25M for Ag BMPs those funds implemented 6,968 BMPs that impacted 254,628 ag. acres. Due to the large increase in BMPs implemented each year Virginia has struggled to complete verification inspections on its in lifespan BMPs in accordance with our QAPP. Time spent verifying

the existence of in lifespan BMPs will reduce the Soil and Water Conservation Districts ability to design and engineer new practices for future implementation. Further as Virginia continues to implement larger numbers of BMPs especially those that are contained in our WIP we are conduction larger numbers of verification inspections.

Virginia's follow up inspections include one staff person from the Soil and Water Conservation District where the practice was implemented and one DCR staff person familiar with the program and practice specifications. In program year 2013 DCR and SWCD staffs performed 553 verification inspections of these more that ninety-five percent were either fully operational or in need of minor maintenance that was addressed within the program year. This maintenance typically involved the addition of stone in heavy use areas such as around watering troughs and was quickly resolved between the SWCD and the participant. Only 3.44 percent or 19 of these inspections s required additional follow up with the participant. This is a typical annual result, approximately 3% of our verification inspections require additional follow up. Given this track record we submit that the 10% required annual inspections are both arbitrary and excessive.

We further suggest that the language in the last sentence in this paragraph is not clear. Are you proposing verifying 10% of the number of BMP proposed to be implemented in the WIP or inspection of 10% of the type of BMP implemented in the past year if that type of BMP accounted for more that 5% of the WIP reductions? Both explanations have been offered when this language was questioned. We submit that this language needs additional clarification. Given the issues raised Virginia proposes that the rush to move the consideration of this guidance to the Ag. Workgroup and then the WQGIT is premature. Additional discussion and input from those organizations that will be most directly impacted by this guidance will yield a better product.

In conclusion Virginia is focused on implementing BMPs to meet our WIP commitments, a ten percent annual verification inspection requirement will reduce our ability to continue to implement at the levels necessary to meet the WIP goals.

**Response: An alternative sub-sampling strategy language has been added for 3a-d. The guidance document language has been supplemented with examples for additional clarification.**

MASCD

The Maryland Association of Soil Conservation Districts (MASCD) represents the twenty-four soil conservation districts in the state that provide technical, design, and installation expertise to our farmers. We would like to offer guidance on acceptable and workable solutions to ensure that agricultural BMPs are effectively protecting the Bay. The goal of Maryland's Soil Conservation Districts is to get conservation practices on the ground in order to provide environmental and agricultural benefit. Districts also play a major role in urban sediment and erosion control and storm water and support the verification of BMPs, across all source sectors including agricultural and urban. MASCD supports that these verification protocols be consistent across sectors.

We understand the need for 100% initial verification of non-cost shared, cost shared, and permit issuing programs in order to ensure their existence and functioning. MASCD is

concerned that requiring 100% verification of permit issuing programs on an annual basis imposes an unrealistic workload on permit inspection staff who are already working with limited time and resources. This requirement is also inconsistent with the verification requirements in other sectors with permit programs. After reviewing the comments of the Maryland Department of Agriculture (MDA), we agree that we do not see a reasonable basis for requiring 10% annual verification of practices accounting for 5% or more of the state's Watershed Implementation Plan goals for the agricultural sector. Our district staff are a combination of Natural Resources Conservation Service (NRCS), MDA and individual district employees. We already aid in verification at the 10% level for MDA cost-shared practices and 5% for NRCS and cannot prescribe to a verification level higher than that required by the funding entities. Our districts are focused on providing the knowledge and resources required to get conservation practices on the landscape and are already working with limited staff and resources. Requiring additional verification and inspection would shift focus away from actually installing practices to continue providing environmental and water quality benefits.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

**Response: The minimum annual sub-sampling verification has been revised from 100% to 20%, consistent with EPA CAFO program agreements with the jurisdictions.**

MDA

The Maryland Department of Agriculture supports the verification of BMP implementation across all source sectors, including agriculture. A consistent protocol that spans source sectors and jurisdictions is critical in ensuring that all stakeholders are held equally accountable in meeting their respective obligations under the Chesapeake Bay TMDL.

MDA has reviewed written comments by Virginia and Pennsylvania and concur that there is no reasonable basis to demand at least 10% annual follow-up verification of BMPs achieving greater than 5% of the jurisdictions agricultural WIP goal. While MDA has existing guidelines establishing a 10% spot-check on projects funded through the State cost-share program, MDA does not have legal authority to impose additional verification requirements on federal agencies such as NRCS. It is also an unreasonable expectation for MDA to verify NRCS installed BMPs beyond the USDA established 5% threshold. MDA does not currently have staff resources for this additional workload and responsibility ultimately resides with NRCS. While Maryland currently partners at the district level with NRCS we will not prescribe to a greater level of verification and inspection above their current resource ability.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

**Section 3c: Regulatory Program**

Since BMP implementation associated with regulatory programs is overseen "through a legally imposed regulatory program," initial verification and reoccuring annual verification protocols should be established and maintained by each regulatory program. These requirements are generally established as a result of State law or regulation and may be inconsistent with CBP proposed verification recommendations. In addition, statistical sub-sampling utilizing scientifically accepted procedures should be authorized for the initial inspection of non-visually assessed BMPs that are reported to jurisdictions as a result of legally enforceable reporting requirements. Implementation reporting violations associated with regulatory programs carry greater consequences than non-cost shared or publicly funded BMPs.

**Response: An alternative sub-sampling strategy language has been added for 3a-d.**

**Section 3d: Permit-Issuing Programs**

"The minimum expectation of verification for permit issuing programs BMPs is recommended to be 100 percent of the initial identification of annual or multi-year BMPs and plan implementation by trained and certified technical agency field staff or engineers, or compliance/enforcement staff, with supporting documentation that it meets the governmental and/or CBP practice standards. During the course of the identified physical lifespan period of multi-year BMPs, a reoccurring annual verification that the BMPs are being maintained and operated consistent with the permitting standards is recommended to be 100 percent of the total number of tracked and reported BMPs."

MDA is concerned that instituting a 100% verification protocol on initial identification and reoccuring annual verification of agricultural BMPs associated permit issuing programs is inconsistent with those adopted by other source sectors. Specifically, the stormwater verification protocol only calls for inspections of NPDES stormwater facilities every 9 or 10 years. In addition, the 100% recommendation imposes an unrealistic workload on limited permit inspection staff. MDA suggests that consistent verification protocols apply across all source sectors and any recommendation should consider existing verification mechanisms that are currently in place to address permit compliance.

**Response: The minimum annual sub-sampling verification has been reduced from 100% to 20%, consistent with EPA CAFO program agreements with the jurisdictions.**

**Section 6b: BMP Grouping**

As outlined in this section, jurisdictions have the ability to logically group BMPs to "best account for the jurisdiction's relative Watershed Implementation Plan priority," will the 5%/10% verification requirement apply to each BMP reported or each "logical group" as defined by each jurisdiction?

**Response: The guidance document language now incorporates the verification recommendations based on annual BMP nutrient and/or sediment reductions by jurisdiction vs. WIP planning documents.**

RI Panel

Change definition of RI:**"*Resource Improvement BMP's are practices which provide similar annual environmental benefits for water quality but may not fully meet all the design criteria of existing governmental design standards. RI BMP's are usually identified during a visit with the farmer. RI BMP's are implemented by a farmer and are not cost shared through a federal or state program. RI BMP's can be the result of a farmer choosing not to completely follow all the details of the design standard from the District or NRCS, but will contain all the critical elements for water quality resource improvement. Accepted CBP RI BMP's definitions contain descriptions of the practice with Visual Indicators. A Visual Indicator is a means of assessing the presence of key elements that must be present to achieve the water quality benefits of the RI practice and to be reported in Jurisdictional WIPs. The inspection interval of an agricultural Resource Improvement BMP shall be reduced from those practices meeting state or federal contractual guidelines resulting in more frequent inspections to insure proper function."***

**Response: RI definition changed under 3a.**

For the table in multi-year assessment we changed a few of the methods that we had previously submitted to you. See attached Excel document under the RI tab. Where we have pink entries are ones we want adjusted. Columns E and F are in our guidance document and do not have to go into the general guidance. These columns show the Eligible RI practices by method and the required documentation.

**Response: RI Guidance document tables match verification guidance matrix tables.**

Spot check: We used your information on quality assurance of Non-cost shared practices, so if you change it please let me know so I can change in our guidance.:

**"The minimum expectation of verification for non-cost-shared BMPs** is recommended to be 100 percent of the initial identification of annual or multi-year structural BMPs and plan implementation by trained and certified technical field staff or engineers with supporting documentation that it meets the governmental and/or CBP practice standards. Visual assessment for single year BMPs, such as tillage practices, can be statistically sub-sampled utilizing scientifically accepted procedures. During the course of the identified physical lifespan period of multi-year BMPs, a reoccurring annual verification that the BMPs are being maintained and operated as per the appropriate practice standards at a minimum expectation for follow-up sub-sampling of 10% for BMPs achieving greater than 5% of the jurisdiction's WIP agricultural sector goals.

It is important to note that BMPs which were initially implemented and/or operated under a cost-share, regulatory, or permit program but are transitioned out of these programs and no longer are under the oversight of a cost-share agreement, regulation, or permit, will be verified by the same level of verification described for non-cost shared BMPs if they are continued to be considered for ongoing pollution reduction crediting."

**Response: RI Submission document language now references the verification guidance document.**