

## **EPA's Reviews of Virginia's November 14, 2015 Revised Draft BMP Verification Program Plan**

Transmitted January 26, 2016

For your reference and consideration as Virginia works to further enhance its BMP verification program over the coming two years, please find a compilation of EPA's reviews of Virginia's November 14, 2015 Revised Draft BMP Verification Program Plan in the form of a series of evaluation forms.

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### *Overarching Comments*

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#### *Formatting and General Content:*

1. The Panel felt that the approach of building a program plan around citations of verification procedures provided in often-lengthy attached appendices was not effective or transparent. The Panel highly recommends pulling out the relevant information (text, tables etc.) from such referenced appendices and placing them directly in the jurisdiction's program plan, and then provide a link to the full document within the program plan's text.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed:

☒

Not Addressed:

☐

Comments: Limited appendices, but very limited references within the main text and almost not URL links to documents providing more detailed documentation.

#### *Use of Statistical Sampling Approaches and Practice Prioritization:*

2. Anytime the jurisdictions select a subsampling percentage—e.g., 5 percent—they should document the process and rationale for how they selected that specific percentage. Simply citing a methodology used by NRCS or other data submitting partners is not sufficient in the Panel's opinion. Emphasis should be placed on documenting the criteria for subsample selection on how that percent subsampling meets the jurisdiction's own WIP and verification objectives to ensure they have achieved the Partnership's BMP Verification Principles.

Was this comment sufficiently addressed?

Addressed: ☒

Partially Addressed:

☐

Not Addressed:

☐

Comments: Virginia provided significantly more documentation and underlying rationale supporting their sampling percentages. The source of the data cited in Appendices 5 and 6 need to be documented and the public needs to be provided full access to those data.

3. When using a statistical sampling based verification protocol (e.g., CTIC), the jurisdiction should clearly document how they plan to translate the findings from the statistical survey into the actual numbers and geographical distribution of practices submitted through NEIEN for crediting through the Partnership's annual progress runs.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

4. Jurisdictions should consider basing the rigor of their verification protocols by a practice's contributions to planned pollutant reductions under the jurisdiction's Watershed Implementation Plans (WIPs). Risk of practice failure may also be a workable means to prioritize verification if clear justification for assignment of risk to individual BMPs is provided.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

5. Jurisdictions should provide the overall percentage of the total WIP load reductions contributed by BMPs that the jurisdiction has included in its BMP verification protocols. Pennsylvania's draft program plan provides good examples of this approach (see page 5 for one example).

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

6. While the Panel recommends the prioritization of BMPs, they note that verification protocols must be developed for *all* BMPs that a jurisdiction plans to report. Therefore, the Panel is asking for the jurisdictions to fill in the blanks for any low and medium priority BMPs for which verification protocols have not yet been submitted. The Panel asks for a specific timeframe for providing verification protocols for these low and medium priority BMPs, as well as a description of the envisioned level(s) of verification, recognizing the Basinwide Framework allows for less rigorous levels of verification for these low priority practices.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

7. The Panel requests that all six states describe their proposed verification of septic systems/on-site treatment systems **EVEN** if those treatment technologies may be low priority and/or if the jurisdiction does not have plans to submit these technologies in the near future for pollutant reduction credit.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

*Practice Inspections:*

8. Training requirements for inspectors were not clearly documented throughout the verification program plans. (See New York's draft agricultural plan for a good working example of what the Panel was looking for across the jurisdictions.)

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

9. The Panel feels that independent, third party review is necessary in most cases to meet the Public Confidence Principle.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

10. If a BMP has been inspected and found to meet standards, then the jurisdiction needs to clearly document their plans to 'restart the clock' on that practice and apply a new life span.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

11. If a BMP has been inspected and found not to meet standards, then the jurisdiction needs to clearly document the process for corrective maintenance and the application of a new life span, or alternatively, to remove it from the jurisdiction's tracking data base.

Was this comment sufficiently addressed?		
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		

12. Across the jurisdictions, the way that verification of erosion and sediment control for active construction and stormwater management for post-construction was conflated and/or confusing at times. A clear distinction between the verification approaches for these very different categories of BMPs should be provided.

Was this comment sufficiently addressed?		
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		

*Enhancing Existing Programs:*

13. If a jurisdiction has not finished issuing all its MS4 permits, the Panel questions relying on MS4 permits for carrying out verification. Jurisdictions must develop a program plan that is consistent with the urban sector guidance, and cannot simply default to MS4 methodologies.

Was this comment sufficiently addressed?		
Addressed:	<input type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input checked="checked" type="checkbox"/>
Comments:		

14. Where Bay TMDL NPDES permit limits are not yet met, a schedule for treatment upgrades and issuance of associated permits should be included in the jurisdictions' wastewater treatment verification sections.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

15. Verification procedures for BMPs owned or operated by Federal agencies, facilities and landowners were essentially absent from the jurisdictions' initial draft BMP verification program plans—this is an issue that needs to be addressed by both the jurisdictions AND their federal agency and facility partners.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

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## Virginia

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### Overarching

Virginia proposes a statistical approach with 95% +/-5% confidence for inspection protocols. How this approach is evaluated by CBP Partnership sets the precedent for all other jurisdictions. From the page on calculations, the crucial determinant appears to be the pass/fail assumption. The determination that agricultural practices such as Forest Buffers are “low risk” is definitely open to debate. In fact, all cost-shared practices in the contractual period are so designated. Low risk of what? To be credible, there should be further explanation and potentially an independent and transparent study.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments: Virginia provided more documentation on pages 28-30 and in appendices 5 and 6.

### Agriculture (Yellow)

Want to see more underlying statistical sampling design documentation and clearer explanations that help the public understand how it will be implemented.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments: Virginia provided more documentation on pages 28-30 and in appendices 5 and 6.

Very concerned about the implications of going 10 percent to 1 percent sub-sampling in terms of: loss of confidence, reduce rigor, lost opportunities for interactions with farmers and working to correct practices found to be substandard, loss of 'incentive' on the part of the farmers to do the right thing given a one in ten chance of being inspected each year.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments: Virginia provided more documentation on pages 28-30 and in appendices 5 and 6 on the basis of their selection of the percentages, but they did not fully address the above concerns.

Have to go out to a host of other documents cited in draft document to really understand what is being recommended within Virginia's draft verification plan. It would be better to pull relevant parts and include in the program plan.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments: Virginia needs to provide more citations for the documented referenced or referred to in the text as well as direct URL links to those documents.

The Panel believes the assignment of low risk is crucial. The Panel questions who made the assessment and whether there was any independent review of such a crucial determination.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments: Virginia provided more documentation on pages 28-30 and in appendices 5 and 6 on the basis of their selection of the percentages, but they did not fully address the above concerns, particularly independent review.



Initial on-site inspections are conducted on 100% of practices for all but three of the agricultural verification groups; tillage practices will use a transect survey, manure transport will be based on hauler records, and feed additives will come from sampling by integrators and growers. The frequency of grower sampling is unclear. Rather than a standard on-site visit frequency of 10% per year, stratified random sampling will be conducted that results in follow-up checks of 1-10% of practices each year. All structural practices are re-inspected one year prior to the end of the credit duration and all NMPs and RMPs re-checked roughly every three years. Given the state is going below the recommended 10% threshold, the underlying statistical approach needs more explanation and to be reviewed by the statistical design review team.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments: The statistical approach was reviewed and accepted by the Statistical Design Review Team and Virginia has provided more documentation.

Further clarity on feed additive sampling is needed.

Was this comment sufficiently addressed?

Addressed: ☐ Partially Addressed: ☐ Not Addressed: ☐

Comments: Not sure what this comment is referring to.

No specifics on farmer interviews and record evaluations are provided to explain how each component or standard will be reviewed for compliance.

Was this comment sufficiently addressed?

Addressed: ☐ Partially Addressed: ☐ Not Addressed: ☒

Comments:

Virginia was unable to reach a 1619 agreement with USDA; therefore, NRCS data will be delivered to the state in aggregate. Unless Option 1 (1619 signed) or Option 2 (a third party is engaged to disaggregate the data before inclusion in Virginia's data) on page 20 are implemented, USDA/NRCS practices must not be counted toward Virginia's pollution reduction goals. Aggregated data that is not verified by a third party falls far short of the Public Confidence verification principle.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments:

No proposal provided for third party verification with exception of the Resource Management Plan process.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments:

There is no documentation on verification of CAFOs. The Panel assumes that verification would be conducted in accordance with the NPDES permit, but this needs to be clearly documented.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments:

As far as the Panel can tell, site-specific USDA/NRCS data will not be available to the public. Also, it is unclear whether RMP-related data will be public. The absence of transparency for these practices is currently a flaw for this protocol.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments:

Need to adopt a more conservation pass/fail ratio at the beginning, something on the order of 50/50 or 60/40 and not 90/10 or 97/3 given the underlying data are not publically accessible.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments: Virginia provided documentation of its selections which are based on existing onsite farm survey data.

Provide documentation on how Virginia plans to take the result of its statistical-based subsampling verification protocols and convert the resultant findings into numbers of BMPs spread over what geographical areas for reporting on its progress every year.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments: Virginia needs to explicitly address this still.

Virginia has documented a failure rate of up to 0.2-3 percent for their cost share practices.

- a. The Panel stated that the data supporting such extremely low failure rates need to be clearly documented and confirmed given these rates are well below rates reported by any of the other six watershed jurisdictions.

Was this comment sufficiently addressed?

Addressed:

☐

Partially Addressed:

☒

Not Addressed:

☐

Comments: Virginia needs to reference the source of those data and make them publically accessible.

The Panel is asking Virginia to more clearly document their rationale for the selection of their return spot checks percentages.

Was this comment sufficiently addressed?

Addressed:

☐

Partially Addressed:

☒

Not Addressed:

☐

Comments:

The Panel expressed concern that the 1 percent sub-sampling is based on a population of all BMPs, some of which may be more at risk for failure compared with others—the 1 percent design does not consider these different BMP risk rates.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			

In summary, the Panel was reacting to Virginia’s proposal to pool all of its agricultural practices, without regard to their individual risks for failure, dropping their sub-sampling rate from 5 percent to 1 percent, and how these contrasted significantly with the agricultural BMP verification approaches proposed by the other five watershed states.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			

It is unclear how Virginia's proposed low percentages will mesh with the other proposed follow-up checks of 10)% re-inspection of structural practices one year prior to end of credit duration. For example, cost-share programs often have 10-15 year contract periods, which would translate into ~7-10% annual re-inspection rate. Virginia may need to increase its proposed statistical sample sizes.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

## Forestry (Yellow)

Virginia Department of Forestry's follow up inspections for riparian forest buffers are not documented within Virginia's draft plan.

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: Documented on page 31.					

For Forest Buffers, there is more than a low risk of buffers not receiving the necessary management during the establishment phase, and the Forestry guidance cites circumstances when buffer performance can be undermined after establishment. In Virginia, buffer follow-up inspections are reinforced by Forestry Department to a greater degree than in any other state. This degree of scrutiny has to be taken into account if Virginia's buffer success rate is as advertised.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments: Involvement of the Virginia Department of Forestry is documented on pages 30-31.

As with the agricultural protocol, the lack of NRCS data transparency is a flaw here. The proposed procedures themselves are solid and fairly close to the sector guidance. If the NRCS data issue is resolved and some additional clarity is added to Appendix 3 on the urban sector, this protocol could be fully consistent with the Public Confidence principle.

Was this comment sufficiently addressed?

Addressed: ☐ Partially Addressed: ☒ Not Addressed: ☐

Comments:

There is no discussion of net gain. Urban practices are checked every five years in accordance with state and federal programs—does that same frequency apply to urban buffers and tree canopy?

Was this comment sufficiently addressed?

Addressed: ☐ Partially Addressed: ☐ Not Addressed: ☒

Comments: Missing any documentation of urban buffers, urban tree canopy, and urban tree plantings.

Does not address verification of urban forestry practices. Virginia Department of Forestry is working on an urban forestry program and actively encourages and trains local forest partners, but this program was not included in the protocol.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments:

Virginia Department of Forestry's verification of forest harvest BMPs are not documented.

Was this comment sufficiently addressed?

Addressed: ☒

Partially Addressed: ☐

Not Addressed: ☐

Comments: Involvement of the Virginia Department of Forestry is documented on pages 30-31.

Appendix 3 was helpful; however, this table did not document answers to all the Panel's evaluation form questions. The protocol referred to other programs where specific requirements and procedures were included. However, links to all the documents were not provided.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments: Links to all the referenced documents were still not provided.



The lack of two inspections in the first four years is common across sectors. Specific justification for inspection/follow-up frequency is included in Appendix 3 and 5 for agricultural practices, while the urban and harvesting sectors refer to existing permitting requirements. Further upfront inspection and including greater clarity on urban permitting requirements within the protocol would be useful.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:			

The Panel stated that Virginia's proposed verification protocols do not meet the Partnership's Forestry Workgroup verification guidance. The Panel requested that Virginia organize all its protocols for forestry practices in the forestry section, even though information may be received from more than one state agency or source.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Forestry section is on pages 30-32.			

## Stream Restoration (Red)

Some of the Panel members are aware of strong stream restoration inspection and verification procedures and programs in place in counties, but they should be clearly articulated.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

Please document the verification procedures for the various stream practices mentioned (see pages 34, 38, 39, and 43).

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Section on stream restoration on pages 32-33 and but no mention of the protocols within appendix 3.		

The frequency of field verification is not clear and the draft protocols do not address functionality of the practices.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Functionally was referenced in the text, but not link to specific protocols were included.		

To assist with the documentation, please use Table 8 from the Verification Framework, as well as the Panel evaluation questions.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

The Panel emphasized the need to measure functionality not just presence of the practice in the documentation of Virginia's stream restoration verification procedures.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: Functionally was referenced in the text, but not link to specific protocols were included.					

The Panel asked Virginia to provide the reader with a narrative description of, and URL links to where the reader can find Virginia's more detailed stream restoration verification protocols.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

The Commonwealth of Virginia Quality Assurance Project Plan for Managing and Reporting Data on Practices, Treatments and Technologies Resulting in Reductions of Nitrogen, Phosphorus and/or Sediment Pollutant Loads to the U.S. EPA - Chesapeake Bay Program Office is lacking in detail and includes few of the recommendations for stream restoration from the Verification Committee. Details for verification for stream restoration are referenced either to MS4 Permit requirement, BMP installed pursuant to Bay Act requirement or BMP installed to meet VSMP requirements under the Construction GP.

DEQ does not anticipate any specialized training and certifications requirements for Verification. Training and certification for DEQ internal data are inherent to the regulatory programs from which the data is generated.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

### Urban Stormwater (Yellow)

Need more documentation supporting the statistical-based sampling design recommendations.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: Limited documentation provided on page 35 and in Appendix 3.					

Need more details on what exactly how the certified applicators are verified (soil samples?).

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

Need more documentation of verification procedures directed towards non-regulated stormwater.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

The Panel does not see the following as a valid statement: Page 27: “Many of the BMPs implemented in the urban sector are required by permits or regulatory programs. These programs and permits include requirements for BMPs to be properly maintained. Typically, this includes a requirement that a maintenance agreement be recorded with the parcels land records. These regulatory programs also include compliance and enforcement processes that ensure the regulatory requirements are being followed. Collectively, these procedures ensure the proper initial implementation and continued operation of the BMPs installed pursuant to these programs. As such, this class of BMPs is expected to be maintained in perpetuity and no sunsets will apply.”

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Some additional text added in the urban stormwater section, but not enough to full address the above comment.		

Timeframe for allowing practice owners to take corrective actions following a failed inspection was not described.

Was this comment sufficiently addressed?			
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Addressed on page 36—90 days.			

Federal, state and local permitting requirements are not included in the protocol, which makes it difficult to definitively assess whether the proposed protocol complies with the Verification Principles.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="checked" type="checkbox"/>
Comments:			

Provide the requested additional documentation in the same format as Table 8 in the guidance document and at the same time provide answers to questions listed on the urban stormwater sector evaluation form (see Appendix A).

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="checked" type="checkbox"/>
Comments:			

What is the schedule for making the proposed network database (page 21) operational?

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

Are all MS4 programs under up-to-date permits? If not, the assumption that the regulatory program can be relied upon for verification is not valid.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

The Panel asked for Virginia to document their oversight of the local inspectors.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

The Panel questioned what Virginia plans to “inspect” urban nutrient management and the actual certified applicators and asked for further documentation on what was meant here.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

The proposed BMP verification program plan states that stormwater practices “last forever” —the Panel questioned how Virginia ensures this is the case through their re-inspection efforts.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					



The Panel asked that Virginia document the process for removing practices where are found to not be operating or abandoned as well as the process followed for getting the practice corrected and then re-reported.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

The Panel recommended Virginia add the underlying land use associated the reported BMPs as that information can be used into the future in helping refine the life span.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: Don't fully understand the comment.					

The VA protocol did have acceptable guidance on how to verify UNM plans and local street sweeping effort, but these BMPs produce much less nutrient reduction than the regulated BMPs that are exempted above.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: No actual comment to respond to.					

Pp 17-18 lack and Appendix 3 Table 2 lack detail on some of these reporting requirements and how verified, however (eg, How does data flow from annual report to DEQ NPS Specialist to NEIEN, esp given some of these permitting programs lack reporting templates?).

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

For urban nutrient management, App 3 Table 2 seems to indicate that plans can be written for 3-5 years but I thought credit only good for 3 years w/o verification. App 3 makes no mention of add'l documentation of decrease in non-ag fertilizer sales to justify ongoing credit, which is part of BMP panel recommendations. P27 says such documentation will be done "eventually"; concerned w/ use of eventually as it needs to be done w/in 3 years of first reporting credit (which I think happened 2-3 years ago)

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

*What is the defined amount of time a locality/federal facility has to take corrective maintenance or rehabilitation to bring a sub-standard BMP back into compliance?*

No mention of this

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: 90 days as documented on page 36.					

Pg 24: Unclear why some BMPs have links to additional documentation and others don't. Also UNM link doesn't work

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

P17: Urban nutrient management section lacks detail. Only says relies on cooperative agreements w/ companies to follow UNM standards for contracted acreage w/o having formal UNM plans in place. No detail on content of cooperative agreement, how DEQ verifies it, consequences for companies if not complying w/ UNM standards

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

According to App 3 Table 2, street sweeping does reporting by weight but appears new panel will require reporting by lane miles and type of sweeping/frequency/etc. DEQ will need to update street sweeping method to comply with new panel methods if panel approved

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

App 3 Table 2: No mention BMPs on federal lands, and no mention of state agency spot checks on unregulated BMPs

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

App 5 includes info on UNM spot checks. However, if “allowable error” of “assumed 50/50 pass/fail”, then shouldn’t this mean that DEQ only reports to CBP half the UNM ac that are reported to DCR/DEQ?

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

QAPP references CGP Database, but I don’t think this is fully operational yet and therefore can’t support all aspects of verification program for all urban BMPs

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

## Wastewater (Yellow)

Minimal narrative descriptions of wastewater treatment discharge verification protocols.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

Minimal narrative descriptions of septic systems/on-site treatment systems verification protocols.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

Whether the program requires significant wastewater treatment facilities to monitor and report monthly flows and loads via DMRs was not clearly stated in the protocol.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

Lacks documentation on verification of CSOs.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

The Panel asked that Virginia provide answers to the series of wastewater evaluation review questions found on pages 51-52 of the Panel's August 7th report to the Partnership in their revised wastewater verification protocol documentation.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					

It would be good public information for VA to say whether the nutrient limits for its significant WWTWs are not being met, or provide information on when they will be met.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: Not directly relevant to BMP verification.					



They discuss point sources from treatment plants and tracking DMRs in databases such as ICIS, but how are other wastewater pollutant sources generally identified, tacked, and monitored for pollution reduction?

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			

## Wetlands [Red]

Minimal to no documentation of the wetland verification protocols.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input checked="" type="checkbox"/>
Comments:			

The Panel emphasized the need to verify continued functionality, not strictly presence of restored wetlands.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			

The Panel recommended Virginia work with a number of non-governmental organizations who are actively restoring wetlands.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

The Panel asked Virginia to review and answer the applicable wetland restoration evaluation review questions contained within Appendix A on page 52 in the Panel's August 7th report to the Partnership in their revised wetlands restoration verification protocol documentation.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

The Panel asked that rather than just listing wetland restoration as a practice in the agricultural and urban tables, Virginia provide a narrative description of how they plan to carry out verification and, where appropriate, provide links to more detailed documentation.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Separate wetlands section provided on pages 32-33 along with stream restoration.		

## Format

### Wastewater, Urban Stormwater, Erosion & Sediment Control QAPP

One QAPP for practices implemented under VDEQ regulatory and §319 grant programs. The QAPP format follows the Appendix Q Guidance. The document titled *QAPP for Managing and Reporting Data on Practices, Treatments and Technologies* is particularly strong in elements under *Group A. Project Management*, and *Group D. Validation and Usability*. *Group B. Data Management*, Section B10.1, fails to describe internal databases and data management procedures for wastewater data (DMRs, ICIS, etc.), urban stormwater and manure transport. DEQ needs add much more detail regarding data entry, QC checks and software, hardware and backup systems, similar to other jurisdiction's QAPPs. Describe and reference Appendix 2, Internal and External Data Flow.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments:

### Agricultural BMP QAPP

The Agriculture BMP Verification Protocols from DEQ's *QAPP for Managing and Reporting Data on Practices, Treatments and Technologies* need to be added to the DCR QAPP for Agriculture BMPs. For the 2015 QAPP, DCR should copy: a) The text from *Section D.2 Validation and Verification Methods*, under the heading "Agriculture", and b) Table 1 (Ag BMPs) within Appendix 3 - Verification Protocol Design.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments:

### Forestry Format

Need a comprehensive, stand-alone QAPP for forestry BMPs.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments:

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## Overarching Comments

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### *Formatting and General Content:*

16. The Panel felt that the approach of building a program plan around citations of verification procedures provided in often-lengthy attached appendices was not effective or transparent. The Panel highly recommends pulling out the relevant information (text, tables etc.) from such referenced appendices and placing them directly in the jurisdiction's program plan, and then provide a link to the full document within the program plan's text.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			

### *Use of Statistical Sampling Approaches and Practice Prioritization:*

17. Anytime the jurisdictions select a subsampling percentage—e.g., 5 percent—they should document the process and rationale for how they selected that specific percentage. Simply citing a methodology used by NRCS or other data submitting partners is not sufficient in the Panel's opinion. Emphasis should be placed on documenting the criteria for subsample selection on how that percent subsampling meets the jurisdiction's own WIP and verification objectives to ensure they have achieved the Partnership's BMP Verification Principles.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
<p>See new language on pages 25 – 26.</p>			

18. When using a statistical sampling based verification protocol (e.g., CTIC), the jurisdiction should clearly document how they plan to translate the findings from the statistical survey into the actual numbers and geographical distribution of practices submitted through NEIEN for crediting through the Partnership's annual progress runs.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:			

19. Jurisdictions should consider basing the rigor of their verification protocols by a practice's contributions to planned pollutant reductions under the jurisdiction's Watershed Implementation Plans (WIPs). Risk of practice failure may also be a workable means to prioritize verification if clear justification for assignment of risk to individual BMPs is provided.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:			
See the new paragraph added on pages 25 – 26.			

20. Jurisdictions should provide the overall percentage of the total WIP load reductions contributed by BMPs that the jurisdiction has included in its BMP verification protocols. Pennsylvania's draft program plan provides good examples of this approach (see page 5 for one example).

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:			

21. While the Panel recommends the prioritization of BMPs, they note that verification protocols must be developed for *all* BMPs that a jurisdiction plans to report. Therefore, the Panel is asking for the jurisdictions to fill in the blanks for any low and medium priority BMPs for which verification protocols have not yet been submitted. The Panel asks for a specific timeframe for providing verification protocols for these low and medium priority BMPs, as well as a description of the envisioned level(s) of verification, recognizing the Basinwide Framework allows for less rigorous levels of verification for these low priority practices.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 26 and 27.			

22. The Panel requests that all six states describe their proposed verification of septic systems/on-site treatment systems EVEN if those treatment technologies may be low priority and/or if the jurisdiction does not have plans to submit these technologies in the near future for pollutant reduction credit.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See pages 36 and 37.			

*Practice Inspections:*

23. Training requirements for inspectors were not clearly documented throughout the verification program plans. (See New York’s draft agricultural plan for a good working example of what the Panel was looking for across the jurisdictions.)

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See pages 5 – 6 for references to information on the training and certification requirements for these programs can be found by following the links Appendix 3, D2 and A8. The discussion does lack specificity.			

24. The Panel feels that independent, third party review is necessary in most cases to meet the Public Confidence Principle.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 21.			

25. If a BMP has been inspected and found to meet standards, then the jurisdiction needs to clearly document their plans to ‘restart the clock’ on that practice and apply a new life span.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See Appendix 3 for lifespan/sunset discussion.			

26. If a BMP has been inspected and found not to meet standards, then the jurisdiction needs to clearly document the process for corrective maintenance and the application of a new life span, or alternatively, to remove it from the jurisdiction's tracking data base.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		
See page 34 for the Urban sector.		

27. Across the jurisdictions, the way that verification of erosion and sediment control for active construction and stormwater management for post-construction was conflated and/or confusing at times. A clear distinction between the verification approaches for these very different categories of BMPs should be provided.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		

*Enhancing Existing Programs:*

28. If a jurisdiction has not finished issuing all its MS4 permits, the Panel questions relying on MS4 permits for carrying out verification. Jurisdictions must develop a program plan that is consistent with the urban sector guidance, and cannot simply default to MS4 methodologies.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		
On November 24, EPA receive the remaining MS4 permit applications for the Tidewater area for review.		



29. Where Bay TMDL NPDES permit limits are not yet met, a schedule for treatment upgrades and issuance of associated permits should be included in the jurisdictions' wastewater treatment verification sections.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		
Not applicable		

30. Verification procedures for BMPs owned or operated by Federal agencies, facilities and landowners were essentially absent from the jurisdictions' initial draft BMP verification program plans—this is an issue that needs to be addressed by both the jurisdictions AND their federal agency and facility partners.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments:		
I am not sure if this appropriate for this document.		

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## Virginia

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### Overarching

Virginia proposes a statistical approach with 95% +/-5% confidence for inspection protocols. How this approach is evaluated by CBP Partnership sets the precedent for all other jurisdictions. From the page on calculations, the crucial determinant appears to be the pass/fail assumption. The determination that agricultural practices such as Forest Buffers are “low risk” is definitely open to debate. In fact, all cost-shared practices in the contractual period are so designated. Low risk of what? To be credible, there should be further explanation and potentially an independent and transparent study.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments:

### Agriculture (Yellow)

Want to see more underlying statistical sampling design documentation and clearer explanations that help the public understand how it will be implemented.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments:

See page 28.

Very concerned about the implications of going 10 percent to 1 percent sub-sampling in terms of: loss of confidence, reduce rigor, lost opportunities for interactions with farmers and working to correct practices found to be substandard, loss of 'incentive' on the part of the farmers to do the right thing given a one in ten chance of being inspected each year.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments:

I don't know how answer this question.

Have to go out to a host of other documents cited in draft document to really understand what is being recommended within Virginia's draft verification plan. It would be better to pull relevant parts and include in the program plan.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments:

The Panel believes the assignment of low risk is crucial. The Panel questions who made the assessment and whether there was any independent review of such a crucial determination.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments:

I don't know how to answer this question.

Initial on-site inspections are conducted on 100% of practices for all but three of the agricultural verification groups; tillage practices will use a transect survey, manure transport will be based on hauler records, and feed additives will come from sampling by integrators and growers. The frequency of grower sampling is unclear. Rather than a standard on-site visit frequency of 10% per year, stratified random sampling will be conducted that results in follow-up checks of 1-10% of practices each year. All structural practices are re-inspected one year prior to the end of the credit duration and all NMPs and RMPs re-checked roughly every three years. Given the state is going below the recommended 10% threshold, the underlying statistical approach needs more explanation and to be reviewed by the statistical design review team.

Was this comment sufficiently addressed?

Addressed:

☒

Partially Addressed:

☐

Not Addressed:

☐

Comments:

Virginia included a new language on pages 27 – 29.

Further clarity on feed additive sampling is needed.

Was this comment sufficiently addressed?

Addressed:

☒

Partially Addressed:

☐

Not Addressed:

☐

Comments:

See page 17.

No specifics on farmer interviews and record evaluations are provided to explain how each component or standard will be reviewed for compliance.

Was this comment sufficiently addressed?

Addressed:

☐

Partially Addressed:

☒

Not Addressed:

☐

Comments:

Listed as a follow-up interview in Appendix 3 (page 41) but no specifics provided.

Virginia was unable to reach a 1619 agreement with USDA; therefore, NRCS data will be delivered to the state in aggregate. Unless Option 1 (1619 signed) or Option 2 (a third party is engaged to disaggregate the data before inclusion in Virginia's data) on page 20 are implemented, USDA/NRCS practices must not be counted toward Virginia's pollution reduction goals. Aggregated data that is not verified by a third party falls far short of the Public Confidence verification principle.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comment:

It was addressed but no resolution.

No proposal provided for third party verification with exception of the Resource Management Plan process.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments:

There is no documentation on verification of CAFOs. The Panel assumes that verification would be conducted in accordance with the NPDES permit, but this needs to be clearly documented.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

See language on page 27.

As far as the Panel can tell, site-specific USDA/NRCS data will not be available to the public. Also, it is unclear whether RMP-related data will be public. The absence of transparency for these practices is currently a flaw for this protocol.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments:

This is a statement not a question.

Need to adopt a more conservation pass/fail ratio at the beginning, something on the order of 50/50 or 60/40 and not 90/10 or 97/3 given the underlying data are not publically accessible.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments:

Provide documentation on how Virginia plans to take the result of its statistical-based subsampling verification protocols and convert the resultant findings into numbers of BMPs spread over what geographical areas for reporting on its progress every year.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments:

Virginia has documented a failure rate of up to 0.2-3 percent for their cost share practices.

- b. The Panel stated that the data supporting such extremely low failure rates need to be clearly documented and confirmed given these rates are well below rates reported by any of the other six watershed jurisdictions.

Was this comment sufficiently addressed?			
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 28.			

The Panel is asking Virginia to more clearly document their rationale for the selection of their return spot checks percentages.

Was this comment sufficiently addressed?			
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 28.			

The Panel expressed concern that the 1 percent sub-sampling is based on a population of all BMPs, some of which may be more at risk for failure compared with others—the 1 percent design does not consider these different BMP risk rates.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
I don't know how to answer this question.					

In summary, the Panel was reacting to Virginia's proposal to pool all of its agricultural practices, without regard to their individual risks for failure, dropping their sub-sampling rate from 5 percent to 1 percent, and how these contrasted significantly with the agricultural BMP verification approaches proposed by the other five watershed states.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
I don't know how to answer this question.					



It is unclear how Virginia's proposed low percentages will mesh with the other proposed follow-up checks of 10)% re-inspection of structural practices one year prior to end of credit duration. For example, cost-share programs often have 10-15 year contract periods, which would translate into ~7-10% annual re-inspection rate. Virginia may need to increase its proposed statistical sample sizes.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			

## Forestry (Yellow)

Virginia Department of Forestry's follow up inspections for riparian forest buffers are not documented within Virginia's draft plan.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 31.			

For Forest Buffers, there is more than a low risk of buffers not receiving the necessary management during the establishment phase, and the Forestry guidance cites circumstances when buffer performance can be undermined after establishment. In Virginia, buffer follow-up inspections are reinforced by Forestry Department to a greater degree than in any other state. This degree of scrutiny has to be taken into account if Virginia's buffer success rate is as advertised.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments:

As with the agricultural protocol, the lack of NRCS data transparency is a flaw here. The proposed procedures themselves are solid and fairly close to the sector guidance. If the NRCS data issue is resolved and some additional clarity is added to Appendix 3 on the urban sector, this protocol could be fully consistent with the Public Confidence principle.

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments:

Dependent on NRCS resolution.

There is no discussion of net gain. Urban practices are checked every five years in accordance with state and federal programs—does that same frequency apply to urban buffers and tree canopy?

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments:

Please see page 31.

Does not address verification of urban forestry practices. Virginia Department of Forestry is working on an urban forestry program and actively encourages and trains local forest partners, but this program was not included in the protocol.

Was this comment sufficiently addressed?		
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
See pages 30 – 32.		

Virginia Department of Forestry's verification of forest harvest BMPs are not documented.

Was this comment sufficiently addressed?		
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
See pages 30 – 32.		

Appendix 3 was helpful; however, this table did not document answers to all the Panel's evaluation form questions. The protocol referred to other programs where specific requirements and procedures were included. However, links to all the documents were not provided.

Was this comment sufficiently addressed?		
Addressed:	<input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
Links not addressed.		

The lack of two inspections in the first four years is common across sectors. Specific justification for inspection/follow-up frequency is included in Appendix 3 and 5 for agricultural practices, while the urban and harvesting sectors refer to existing permitting requirements. Further upfront inspection and including greater clarity on urban permitting requirements within the protocol would be useful.

Was this comment sufficiently addressed?		
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
See pages 31 – 32.		

The Panel stated that Virginia’s proposed verification protocols do not meet the Partnership’s Forestry Workgroup verification guidance. The Panel requested that Virginia organize all its protocols for forestry practices in the forestry section, even though information may be received from more than one state agency or source.

Was this comment sufficiently addressed?		
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
See pages 30 – 32.		

## Stream Restoration (Red)

Some of the Panel members are aware of strong stream restoration inspection and verification procedures and programs in place in counties, but they should be clearly articulated.

Was this comment sufficiently addressed?

Addressed:

☒

Partially Addressed:

☐

Not Addressed:

☐

Comments:

See pages 32 – 33.

Please document the verification procedures for the various stream practices mentioned (see pages 34, 38, 39, and 43).

Was this comment sufficiently addressed?

Addressed:

☐

Partially Addressed:

☐

Not Addressed:

☐

Comments:

Stream practices aren't mention on pages 34, 38, 39 and 43. They may be referring to the June document. See pages 29 and 35 for information.

The frequency of field verification is not clear and the draft protocols do not address functionality of the practices.

Was this comment sufficiently addressed?

Addressed:

☒

Partially Addressed:

☐

Not Addressed:

☐

Comments:

See page 29 in the agriculture section.  
See page 35 in the urban section.

To assist with the documentation, please use Table 8 from the Verification Framework, as well as the Panel evaluation questions.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
They reference the Verification Framework on page 8 but not the Table 8.			

The Panel emphasized the need to measure functionality not just presence of the practice in the documentation of Virginia's stream restoration verification procedures.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
While different BMP groups have different verification procedures or frequencies, the overall framework strives to achieve equity in the measurement of functionality and effectiveness of implemented BMPs among and across the source sectors. See page 26.			

The Panel asked Virginia to provide the reader with a narrative description of, and URL links to where the reader can find Virginia's more detailed stream restoration verification protocols.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 32, verification protocols for stream restoration are included in the appropriate source sector. The section does not contain a URL link.			

The Commonwealth of Virginia Quality Assurance Project Plan for Managing and Reporting Data on Practices, Treatments and Technologies Resulting in Reductions of Nitrogen, Phosphorus and/or Sediment Pollutant Loads to the U.S. EPA - Chesapeake Bay Program Office is lacking in detail and includes few of the recommendations for stream restoration from the Verification Committee. Details for verification for stream restoration are referenced either to MS4 Permit requirement, BMP installed pursuant to Bay Act requirement or BMP installed to meet VSMP requirements under the Construction GP.

DEQ does not anticipate any specialized training and certifications requirements for Verification. Training and certification for DEQ internal data are inherent to the regulatory programs from which the data is generated.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 14, they do provide information on training and certification requirements, however that information for these programs can be found in Appendix 6. As well as, programmatic training and certification requirements for external data providers described in B10.2 are documented in their respective QAPP/SOPs. They can be accessed, where available, by following links in the table in D1.					

### Urban Stormwater (Yellow)

Need more documentation supporting the statistical-based sampling design recommendations.

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 35.					

Need more details on what exactly how the certified applicators are verified (soil samples?).

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		
More details are provided but soil samples are not referenced.		

Need more documentation of verification procedures directed towards non-regulated stormwater.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		
See page 35.		

The Panel does not see the following as a valid statement: Page 27: “Many of the BMPs implemented in the urban sector are required by permits or regulatory programs. These programs and permits include requirements for BMPs to be properly maintained. Typically, this includes a requirement that a maintenance agreement be recorded with the parcels land records. These regulatory programs also include compliance and enforcement processes that ensure the regulatory requirements are being followed. Collectively, these procedures ensure the proper initial implementation and continued operation of the BMPs installed pursuant to these programs. As such, this class of BMPs is expected to be maintained in perpetuity and no sunsets will apply.”

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		
This statement is still in the document on page 34. Why does the panel think it is not a valid statement?		



Timeframe for allowing practice owners to take corrective actions following a failed inspection was not described.

Was this comment sufficiently addressed?		
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
See pages 34 – 35.		

Federal, state and local permitting requirements are not included in the protocol, which makes it difficult to definitively assess whether the proposed protocol complies with the Verification Principles.

Was this comment sufficiently addressed?		
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
See page 34.		

Provide the requested additional documentation in the same format as Table 8 in the guidance document and at the same time provide answers to questions listed on the urban stormwater sector evaluation form (see Appendix A).

Was this comment sufficiently addressed?		
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		

What is the schedule for making the proposed network database (page 21) operational?

Was this comment sufficiently addressed?

Addressed: ☒ Partially Addressed: ☐ Not Addressed: ☐

Comments:

See pages 21 – 22.

Are all MS4 programs under up-to-date permits? If not, the assumption that the regulatory program can be relied upon for verification is not valid.

Was this comment sufficiently addressed?

Addressed: ☐ Partially Addressed: ☐ Not Addressed: ☐

Comments:

Liz will provide an up to date permit information in her review.

The Panel asked for Virginia to document their oversight of the local inspectors.

Was this comment sufficiently addressed?

Addressed: ☐ Partially Addressed: ☒ Not Addressed: ☐

Comments:

Possibly on page 42 (appendix 3 for urban).

The Panel questioned what Virginia plans to “inspect” urban nutrient management and the actual certified applicators and asked for further documentation on what was meant here.

Was this comment sufficiently addressed?					
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 35.					

The proposed BMP verification program plan states that stormwater practices “last forever”—the Panel questioned how Virginia ensures this is the case through their re-inspection efforts.

Was this comment sufficiently addressed?					
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 34, DEQ will continue its oversight of inspection and maintenance requirements for practices in urban regulated sector to ensure practices remain in place and functioning.					

The Panel asked that Virginia document the process for removing practices where are found to not be operating or abandoned as well as the process followed for getting the practice corrected and then re-reported.

Was this comment sufficiently addressed?			
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 36, first paragraph.			

The Panel recommended Virginia add the underlying land use associated the reported BMPs as that information can be used into the future in helping refine the life span.

Was this comment sufficiently addressed?			
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
Verification procedures for BMPs in the urban sector are outlined in Appendix 3, Table 2. The BMPs are subdivided into verification groups based on the type of practice (management, structural, annual, land conversion), program type (cost-share, voluntary, regulatory, cooperative), credit duration, and the risk for failure. Details of this grouping can be found in Appendix 4, Table 2. The result is ten verification groups, each with specific procedures for initial inspection, follow-up checks and lifespan/sunset provisions.			

The VA protocol did have acceptable guidance on how to verify UNM plans and local street sweeping effort, but these BMPs produce much less nutrient reduction than the regulated BMPs that are exempted above.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
This is a statement not a question.					

Pp 17-18 lack and Appendix 3 Table 2 lack detail on some of these reporting requirements and how verified, however (eg, How does data flow from annual report to DEQ NPS Specialist to NEIEN, esp given some of these permitting programs lack reporting templates?).

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 18.					

For urban nutrient management, App 3 Table 2 seems to indicate that plans can be written for 3-5 years but I thought credit only good for 3 years w/o verification. App 3 makes no mention of add'l documentation of decrease in non-ag fertilizer sales to justify ongoing credit, which is part of BMP panel recommendations. P27 says such documentation will be done "eventually"; concerned w/ use of eventually as it needs to be done w/in 3 years of first reporting credit (which I think happened 2-3 years ago)

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

*What is the defined amount of time a locality/federal facility has to take corrective maintenance or rehabilitation to bring a sub-standard BMP back into compliance?*

No mention of this

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

Pg 24: Unclear why some BMPs have links to additional documentation and others don't. Also UNM link doesn't work

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments:					
Comment not addressed.					

P17: Urban nutrient management section lacks detail. Only says relies on cooperative agreements w/ companies to follow UNM standards for contracted acreage w/o having formal UNM plans in place. No detail on content of cooperative agreement, how DEQ verifies it, consequences for companies if not complying w/ UNM standards

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 35.					

According to App 3 Table 2, street sweeping does reporting by weight but appears new panel will require reporting by lane miles and type of sweeping/frequency/etc. DEQ will need to update street sweeping method to comply with new panel methods if panel approved

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
		Not Addressed:	<input type="checkbox"/>
Comments:			
See page 34			

App 3 Table 2: No mention BMPs on federal lands, and no mention of state agency spot checks on unregulated BMPs

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
		Not Addressed:	<input checked="" type="checkbox"/>
Comments:			



App 5 includes info on UNM spot checks. However, if “allowable error” of “assumed 50/50 pass/fail”, then shouldn’t this mean that DEQ only reports to CBP half the UNM ac that are reported to DCR/DEQ?

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
I don't know how to answer this question.					

QAPP references CGP Database, but I don’t think this is fully operational yet and therefore can’t support all aspects of verification program for all urban BMPs

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
Possibly addressed in data management section. Doesn't specifically reference CGP database.					

## Wastewater (Yellow)

Minimal narrative descriptions of wastewater treatment discharge verification protocols.

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

Minimal narrative descriptions of septic systems/on-site treatment systems verification protocols.

Was this comment sufficiently addressed?		
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		

Whether the program requires significant wastewater treatment facilities to monitor and report monthly flows and loads via DMRs was not clearly stated in the protocol.

Was this comment sufficiently addressed?		
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		

Lacks documentation on verification of CSOs.

Was this comment sufficiently addressed?		
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		
See page 37.		

The Panel asked that Virginia provide answers to the series of wastewater evaluation review questions found on pages 51-52 of the Panel's August 7th report to the Partnership in their revised wastewater verification protocol documentation.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
I suggest that Brian Trulear or the VA NPDES permit reviewer address these questions.					

It would be good public information for VA to say whether the nutrient limits for its significant WWTWs are not being met, or provide information on when they will be met.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
I suggest that Brian Trulear or the VA NPDES permit reviewer address this question. From past discussion they are being met but not statement in the QAPP,					

They discuss point sources from treatment plants and tracking DMRs in databases such as ICIS, but how are other wastewater pollutant sources generally identified, tacked, and monitored for pollution reduction?

Was this comment sufficiently addressed?					
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

## Wetlands [Red]

Minimal to no documentation of the wetland verification protocols.

Was this comment sufficiently addressed?					
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 32, it refers to source sector discussion.					

The Panel emphasized the need to verify continued functionality, not strictly presence of restored wetlands.

Was this comment sufficiently addressed?					
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
See page 33.					

The Panel recommended Virginia work with a number of non-governmental organizations who are actively restoring wetlands.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

The Panel asked Virginia to review and answer the applicable wetland restoration evaluation review questions contained within Appendix A on page 52 in the Panel's August 7th report to the Partnership in their revised wetlands restoration verification protocol documentation.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		
I suggest you talk to the wetland contact for this question.		

The Panel asked that rather than just listing wetland restoration as a practice in the agricultural and urban tables, Virginia provide a narrative description of how they plan to carry out verification and, where appropriate, provide links to more detailed documentation.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

## Format

### Wastewater, Urban Stormwater, Erosion & Sediment Control QAPP

One QAPP for practices implemented under VDEQ regulatory and §319 grant programs. The QAPP format follows the Appendix Q Guidance. The document titled *QAPP for Managing and Reporting Data on Practices, Treatments and Technologies* is particularly strong in elements under *Group A. Project Management*, and *Group D. Validation and Usability*. *Group B. Data Management*, Section B10.1, fails to describe internal databases and data management procedures for wastewater data (DMRs, ICIS, etc.), urban stormwater and manure transport. DEQ needs add much more detail regarding data entry, QC checks and software, hardware and backup systems, similar to other jurisdiction's QAPPs. Describe and reference Appendix 2, Internal and External Data Flow.

Was this comment sufficiently addressed?					
Addressed:	<input checked="checked" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

### Agricultural BMP QAPP

The Agriculture BMP Verification Protocols from DEQ's *QAPP for Managing and Reporting Data on Practices, Treatments and Technologies* need to be added to the DCR QAPP for Agriculture BMPs. For the 2015 QAPP, DCR should copy: a) The text from *Section D.2 Validation and Verification Methods*, under the heading "Agriculture", and b) Table 1 (Ag BMPs) within Appendix 3 - Verification Protocol Design.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
The agriculture section was updated, as well as D.2.					

Need a comprehensive, stand-alone QAPP for forestry BMPs.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					
There is a new section in the QAPP for forestry BMPs,					

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## Virginia Agriculture

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Want to see more underlying statistical sampling design documentation and clearer explanations that help the public understand how it will be implemented.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise. Virginia did add additional description of its statistical sampling approach on page 25-27 and 28-30.

Very concerned about the implications of going 10 percent to 1 percent sub-sampling in terms of: loss of confidence, reduce rigor, lost opportunities for interactions with farmers and working to correct practices found to be substandard, loss of 'incentive' on the part of the farmers to do the right thing given a one in ten chance of being inspected each year.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise. Virginia did add additional description of its statistical sampling approach on page 25-27 and 28-30.

Have to go out to a host of other documents cited in draft document to really understand what is being recommended within Virginia's draft verification plan. It would be better to pull relevant parts and include in the program plan.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise, and I'm not sure what the panel was looking for.

The Panel believes the assignment of low risk is crucial. The Panel questions who made the assessment and whether there was any independent review of such a crucial determination.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise.

Initial on-site inspections are conducted on 100% of practices for all but three of the agricultural verification groups; tillage practices will use a transect survey, manure transport will be based on hauler records, and feed additives will come from sampling by integrators and growers. The frequency of grower sampling is unclear. Rather than a standard on-site visit frequency of 10% per year, stratified random sampling will be conducted that results in follow-up checks of 1-10% of practices each year. All structural practices are re-inspected one year prior to the end of the credit duration and all NMPs and RMPs re-checked roughly every three years. Given the state is going below the recommended 10% threshold, the underlying statistical approach needs more explanation and to be reviewed by the statistical design review team.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise, and I'm not sure what the panel was looking for. Virginia did add additional description of its statistical sampling approach on page 25-27 and 28-30.

Further clarity on feed additive sampling is needed.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise. Virginia did add language to address this comment on pages 27-28.

"The manure samples are typically taken at time of clean-out, permit renewal and annually for permitted operations. The manure sample phosphorus concentrations are compared to historical data preceding the addition of phytase to the feed." (p.27-28)



No specifics on farmer interviews and record evaluations are provided to explain how each component or standard will be reviewed for compliance.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: This is beyond my expertise, and I'm not sure what the panel was looking for.		

Virginia was unable to reach a 1619 agreement with USDA; therefore, NRCS data will be delivered to the state in aggregate. Unless Option 1 (1619 signed) or Option 2 (a third party is engaged to disaggregate the data before inclusion in Virginia's data) on page 20 are implemented, USDA/NRCS practices must not be counted toward Virginia's pollution reduction goals. Aggregated data that is not verified by a third party falls far short of the Public Confidence verification principle.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: This is beyond my expertise.		

No proposal provided for third party verification with exception of the Resource Management Plan process.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments: This is beyond my expertise. However, Virginia did not appear to add any language to address this comment.		

There is no documentation on verification of CAFOs. The Panel assumes that verification would be conducted in accordance with the NPDES permit, but this needs to be clearly documented.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments: Virginia added language to address this comment. However, the language is limited to BMP that are required in the CAFO/AFO permits (such as nutrient management planning) but does not extend to additional BMPs not required by the permits that may be present on the CAFO/AFO (such as livestock stream exclusion).

“Additionally, any agricultural BMPs required in CAFO/AFO permits are subject to compliance inspections associated with those programs. These regulatory compliance inspections are independent of and in addition to this verification protocol and will serve to add additional confidence in the BMPs installed on CAFO/AFO sites.” (p.27)

As far as the Panel can tell, site-specific USDA/NRCS data will not be available to the public. Also, it is unclear whether RMP-related data will be public. The absence of transparency for these practices is currently a flaw for this protocol.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise.

Need to adopt a more conservation pass/fail ratio at the beginning, something on the order of 50/50 or 60/40 and not 90/10 or 97/3 given the underlying data are not publically accessible.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise, and I’m not sure what the panel was looking for.

Provide documentation on how Virginia plans to take the result of its statistical-based subsampling verification protocols and convert the resultant findings into numbers of BMPs spread over what geographical areas for reporting on its progress every year.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise. Virginia did add additional description of its statistical sampling approach on page 25-27 and 28-30.

Virginia has documented a failure rate of up to 0.2-3 percent for their cost share practices.

- a. The Panel stated that the data supporting such extremely low failure rates need to be clearly documented and confirmed given these rates are well below rates reported by any of the other six watershed jurisdictions.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise.

The Panel is asking Virginia to more clearly document their rationale for the selection of their return spot checks percentages.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments: This is beyond my expertise.

The Panel expressed concern that the 1 percent sub-sampling is based on a population of all BMPs, some of which may be more at risk for failure compared with others—the 1 percent design does not consider these different BMP risk rates.

Was this comment sufficiently addressed?

Addressed:

☐

Partially Addressed:

☐

Not Addressed:

☐

Comments: This is beyond my expertise, and I'm not sure what the panel was looking for. Virginia did add additional description of its statistical sampling approach on page 25-27 and 28-30.

In summary, the Panel was reacting to Virginia's proposal to pool all of its agricultural practices, without regard to their individual risks for failure, dropping their sub-sampling rate from 5 percent to 1 percent, and how these contrasted significantly with the agricultural BMP verification approaches proposed by the other five watershed states.

Was this comment sufficiently addressed?

Addressed:

☐

Partially Addressed:

☐

Not Addressed:

☐

Comments: This is beyond my expertise. Virginia did add additional description of its statistical sampling approach on page 25-27 and 28-30.

It is unclear how Virginia's proposed low percentages will mesh with the other proposed follow-up checks of 10)% re-inspection of structural practices one year prior to end of credit duration. For example, cost-share programs often have 10-15 year contract periods, which would translate into ~7-10% annual re-inspection rate. Virginia may need to increase its proposed statistical sample sizes.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: This is beyond my expertise.					

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## *Virginia Stormwater*

---

1. Is the existing MS4 permit inspection and maintenance framework the foundation of the jurisdiction's program? **Not entirely**

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

2. Is field performance verification scheduled for every other MS4 permit cycle? How often?

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

3. Does the program link the timing of visual inspections to the length of credit durations for urban stormwater practices?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: <b>In MS4 areas most are inspected annually.</b>		

4. Will MS4 communities be assessing their entire BMP populations within two permit cycles? If so, will they address pre-2000 BMPs prior to pre-1990 BMPs?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

5. What is the defined amount of time a locality/federal facility has to take corrective maintenance or rehabilitation to bring a sub-standard BMP back into compliance?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: <b>90 days (see p 34)</b>		

6. Does the program address proper installation, whether or not the practice meets the design standards, and whether it functions in the hydrologic manner in which it was designed prior to submitting the BMP for credit?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: <b>Addressed in state regulatory program.</b>		

7. Is the program consistent with the Bay Program-approved reporting standards? Do they allow appropriate flexibility for practices that don't lend themselves to the NEIEN geographic reporting requirements? **Yes**

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: <b>See p 34 + 35</b>		

8. Are verification efforts prioritized according to a practice's contribution to the overall TMDL pollutant reduction in a state's urban source sector? **No**

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: <b>No prioritization mentioned in the document</b>		

9. Will the jurisdiction provide spot checks on a subset of local and federal facility BMP project files to validate the reported BMP data? **Yes**

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: <b>Statistical sampling process described on p 35.</b>		

10. Does the program address semi-regulated communities by following one of the three options provided in the sector guidance?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		

11. Are the fastest-growing semi-regulated communities prioritized?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments:		



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## Virginia Stream Restoration

---

Some of the Panel members are aware of strong stream restoration inspection and verification procedures and programs in place in counties, but they should be clearly articulated.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☒

Not Addressed: ☐

Comments: It is difficult to know what examples the Panel members had in mind. There were verification procedures and programs in the appendix of the document.

Please document the verification procedures for the various stream practices mentioned (see pages 34, 38, 39, and 43).

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☐

Comments:

The frequency of field verification is not clear and the draft protocols do not address functionality of the practices.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments: Field verification seems to be every 5 years of 100% according to Appendix 3 (Tables 1 – 3). The use of “100%” is unclear and should be further described.

To assist with the documentation, please use Table 8 from the Verification Framework, as well as the Panel evaluation questions.

Was this comment sufficiently addressed?		
Addressed:	<input type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments:		

The Panel emphasized the need to measure functionality not just presence of the practice in the documentation of Virginia's stream restoration verification procedures.

Was this comment sufficiently addressed?		
Addressed:	<input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments: The document states that follow up inspections will consider both continued presence of the system and their functions but it does not state how it will review/measure for functions.		

The Panel asked Virginia to provide the reader with a narrative description of, and URL links to where the reader can find Virginia's more detailed stream restoration verification protocols.

Was this comment sufficiently addressed?		
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments: Virginia created links to the appendixes. The appendixes had the tables of the different stream restoration verification protocols.		

The Commonwealth of Virginia Quality Assurance Project Plan for Managing and Reporting Data on Practices, Treatments and Technologies Resulting in Reductions of Nitrogen, Phosphorus and/or Sediment Pollutant Loads to the U.S. EPA - Chesapeake Bay Program Office is lacking in detail and includes few of the recommendations for stream restoration from the Verification Committee. Details for verification for stream restoration are referenced either to MS4 Permit requirement, BMP installed pursuant to Bay Act requirement or BMP installed to meet VSMP requirements under the Construction GP.

DEQ does not anticipate any specialized training and certifications requirements for Verification. Training and certification for DEQ internal data are inherent to the regulatory programs from which the data is generated.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments:					

---

## *Virginia Wastewater*

---

Minimal narrative descriptions of wastewater treatment discharge verification protocols.

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: I am assuming that this would be monthly DMRs?					

Minimal narrative descriptions of septic systems/on-site treatment systems verification protocols.

Was this comment sufficiently addressed?

Addressed: ☒

Partially Addressed: ☐

Not Addressed: ☐

Comments: I believe this is covered by general permits and the trading policy.

Whether the program requires significant wastewater treatment facilities to monitor and report monthly flows and loads via DMRs was not clearly stated in the protocol.

Was this comment sufficiently addressed?

Addressed: ☒

Partially Addressed: ☐

Not Addressed: ☐

Comments: Again, I am assuming this is DMRs and they overlooked mentioning that.

Lacks documentation on verification of CSOs.

Was this comment sufficiently addressed?

Addressed: ☒

Partially Addressed: ☐

Not Addressed: ☐

Comments: CSOs are discussed.

The Panel asked that Virginia provide answers to the series of wastewater evaluation review questions found on pages 51-52 of the Panel's August 7th report to the Partnership in their revised wastewater verification protocol documentation.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: I cannot evaluate this comment.					

It would be good public information for VA to say whether the nutrient limits for its significant WWTWs are not being met, or provide information on when they will be met.

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: I think overall program success is coneved.					

They discuss point sources from treatment plants and tracking DMRs in databases such as ICIS, but how are other wastewater pollutant sources generally identified, tacked, and monitored for pollution reduction?

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: A discharger who gets included in the Bay GP is tracked.					

---

## *Virginia Wetlands Restoration*

---

Minimal to no documentation of the wetland verification protocols.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments: There is no documentation of the wetland verification protocols.

The Panel emphasized the need to verify continued functionality, not strictly presence of restored wetlands.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments: The BMP did not emphasize the need to verify continued functionality.

The Panel recommended Virginia work with a number of non-governmental organizations who are actively restoring wetlands.

Was this comment sufficiently addressed?

Addressed: ☐

Partially Addressed: ☐

Not Addressed: ☒

Comments: No non-governmental organizations are mentioned.

The Panel asked Virginia to review and answer the applicable wetland restoration evaluation review questions contained within Appendix A on page 52 in the Panel's August 7th report to the Partnership in their revised wetlands restoration verification protocol documentation.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>
Not Addressed:	<input checked="" type="checkbox"/>		
Comments:			

The Panel asked that rather than just listing wetland restoration as a practice in the agricultural and urban tables, Virginia provide a narrative description of how they plan to carry out verification and, where appropriate, provide links to more detailed documentation.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>
Not Addressed:	<input type="checkbox"/>		
Comments: Page 32-33: More detailed information should be included. The document is limited to the VA cost share manual. It should be expanded beyond VA cost share manual.			