

**EPA’s Reviews of Delaware’s November 14, 2015
Revised Draft BMP Verification Program Plan**

Transmitted January 26, 2016

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

Overarching Comments

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:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: Delaware’s revised program plan still contains references/links to lengthy attached appendices, but does a better job retaining only the relevant information in the main document.					

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: Delaware provides more rationale for the selection of their sampling percentages—e.g., tillage practices—whereas for other practices, Delaware still just references other agency’s percentages—e.g., USFWS and stream restoration verification—without providing documentation that that Agency’s percentage is consistent with Delaware’s programmatic objectives.

- 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: Partially Addressed: Not Addressed:

Comments: Delaware provided sound documentation on the CTIC protocol and their design choices, but did not provide documentation on 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.

- 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: Partially Addressed: Not Addressed:

Comments: Delaware was very clear in documenting its choices of verification protocols and the rigor in their protocols in relationship to the BMPs and their contribution to overall nutrient and sediment reductions called for in their Phase II WIPs.

- 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: Partially Addressed: Not Addressed:

Comments: Delaware provided strong documentation address the overall percentage of the total WIP load reductions contributed by BMPs included in their BMP verification program plan.

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: Partially Addressed: Not Addressed:

Comments: Delaware clearly documented its lower priority BMPs for which verification protocols have not yet been submitted, but did not for specific timeframes 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.

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: Partially Addressed: Not Addressed:

Comments: Delaware provided verification protocols for verification of septic systems/on-site treatment systems.

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: Partially Addressed: Not Addressed:

Comments: Within each set of BMP verification protocols for a group of designated BMPs, Delaware described the training requirements for those individual involved in BMP verification, documenting whether or not a specific “certification requirement” was needed or not.

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: Partially Addressed: Not Addressed:

Comments: Delaware has factored into its BMP verification protocol the use of the independent reviewers, consistent with the Panel’s definition, where needed. An example is the use of an independent QA team in addition to the observation team in carrying out its tillage practice survey. [Note that even the Panel’s own guidance recommends against use of the term ‘third party.’]

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: Partially Addressed: Not Addressed:

Comments: Within each set of BMP verification protocols for a group of designated BMPs, Delaware described how it plans to deal with practices that have been re-inspected and found to meet standards.

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="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Within each set of BMP verification protocols for a group of designated BMPs, Delaware described how it plans to deal with practices that have been re-inspected and found to not to meet standards.		

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="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware documented verification protocols for wet ponds, wetlands, infiltration practices, filtering practices, bioretention and bioswales separate from verification protocols for erosion and sediment control.		

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 checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input 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 checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input 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 checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware's plan address BMPs installed by/under contract/cost shared by NRCS and FSA. There are no federal facilities and federal lands within Delaware's portion of the Chesapeake Bay watershed.		

Delaware

Overarching

1. Need to provide URL links to all other documents, reports, and publications referenced within the draft plan so that readers/users can easily access those references (e.g., page 11, first paragraph).

Was this comment sufficiently addressed?		
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input type="checkbox"/>
Comments: Delaware provides URL links to other documents throughout its revised program plan.		

2. Need to provide a specific schedule for developing and publishing verification protocols for the remaining BMPs with lower anticipated contributions to the overall load reductions (cited on page 55).

Was this comment sufficiently addressed?		
Addressed:	<input type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input checked="" type="checkbox"/>
Comments: Delaware did not provide to provide a specific schedule for developing and publishing verification protocols for the remaining BMPs with lower anticipated contributions to the overall load reductions which it recognized it had not yet developed verification protocols for.		

3. Recommend development of an overall summary and work to make the report more concise by reducing redundant text included in each subsection without losing any understanding of what is being proposed

Was this comment sufficiently addressed?		
Addressed:	<input type="checkbox"/>	Partially Addressed: <input type="checkbox"/> Not Addressed: <input checked="" type="checkbox"/>
Comments: Delaware did not change the overall format, structure and length from its initial draft submission. Recognizing this format results in providing redundant text, the program plan provides an excellent level of documentation using text and formats easily readable and understandable by a wide audience.		

Agriculture (Green)

It appears there is no plan to verify Resource Improvement projects or non-cost share agricultural conservation practices; only cost-shared, regulatory and permitted practices appear to be the focus of verification—please confirm that this is the case.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware confirmed that they did not have plans at this time to verify Resource Improvement projects or non-cost share agricultural conservation practices.			

Plans for follow up inspections were not clear across many of the practices, with some contradictory information in the table versus the supporting text.

Was this comment sufficiently addressed?			
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware has revised its text and supporting tables so that the information provided in both are fully consistent.			

Most practices have a 100% review on initial implementation. The Panel was not sure how the 10% of subsampled practices are selected, as no documentation is provided. The Panel assumes that since multiple agencies report the data, that there are multiple methods for selection (NRCS, SCDs). Need to provide some documentation on the selection of subsamples.

Was this comment sufficiently addressed?			
Addressed:	<input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware provides more rationale for the selection of their sampling percentages—e.g., tillage practices—whereas for other practices, Delaware still just references other agency's percentages—e.g., USFWS and stream restoration verification—without providing documentation that that Agency's percentage is consistent with Delaware's programmatic objectives.			

Given Delaware's plans to review only 5% of practices every year, they need to provide more detailed documentation supporting this choice of a subsampling amount and whether/how this is related to Delaware's Watershed Implementation Plan's list of practices.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware provides more rationale for the selection of their sampling percentages—e.g., tillage practices—whereas for other practices, Delaware still just references other agency's percentages—e.g., USFWS and stream restoration verification—without providing documentation that that Agency's percentage is consistent with Delaware's programmatic objectives.

Visual inspections for nutrient management plans seem to be complaint driven rather than the systematic, random inspections that would be necessary to ensure public confidence (page 67, 68, 70).

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware's documentation of their planned verification of nutrient management plans remains largely the same as originally submitted in June 2015. The only exception is the deletion of a single paragraph on page 70 in the original June 2015 draft program plan which described the compliant driven process.

No reference to plans for independent review of any collected or reported data.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: All submitted data are reviewed and quality assured by the Quality Assurance Officer.

List Delaware's set of high priority BMPs on which the state will focus most of its verification efforts and include percent contributions to total planned WIP reductions.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware lists its high priority BMPs on which the state will focus most of its verification efforts and include percent contributions to total planned WIP reductions in each respective sector section by groups of BMPs for which BMP verification protocols are described.

Inspection practices differ from BMP to BMP and program to program. While the provided tables and narrative do a good job of explaining the programs, a justification of the differences would be useful.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware provides some level of documentation for the verification protocols presented for each respective group of BMPs by sector, but does not provide documentation explaining the differences across groups.

Does the program plan commit to conducting annual conservation tillage surveys at 90% confidence?

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Yes it does.

For agriculture, transparency is a documented issue for the public. Is there any value to a small, comparative study of CAFO performance on BMPs to inform the public, and a discussion of comparative aggregate AFO performance?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: [Reviewer does not understand the comment.]		

The Panel pointed out that Delaware did not document any verification protocols for non-cost shared practices.

- a. Sussex County and the Delaware Department of Agriculture has been actively tracking and reporting non-cost shared practice. Delaware has not had time yet to document verification protocols for non-cost shared practices but plans to do so.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware recognized it does not plan to verify and report non-cost shared practices at this time.		

The Statistical Sampling Design Review Team has expressed concerns about the 110 mile transects and 460 samples selection by Delaware and its lack of relationship to the relative acreages of cropland compared to total land areas.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: The Statistical Sampling Design Review Team has review the design of Delaware's CTIC-based sampling program for verifying tillage practices and cover crops and documented its full support for the documented methodology.		

Table D1-2 does not contain all of the highest priority BMPs from Appendix P that are detailed in the report, such as Soil and Water Conservation Plans and Nutrient Management Planning.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Both sets of practices are now included.

Does DE really inspect 100% of cover crop practices annually, including being “inspected for compliance or failure”? That was 30,921 acres in 2014, and projected to be 85,619 acres in 2025. It sounds more like they are conducting a transect survey of a small sample of cover crop acreage, then extrapolating this transect survey data to the larger dataset.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Delaware conducts 100 percent inspections for all cost shared cover crop practices and separately extrapolates results from its tillage practices/cover crop survey based on the original CTIC survey. [Reviewer’s note: Delaware needs to document how it merges the results of these two procedures—cost share acreages inspected and sampling design survey estimated acreages.—for cover crops.]

For Soil and Water Conservation Plans, on page 64, does the Initial Inspection Frequency of “1/year” mean that every soil and water conservation plan is inspected once within the first year of plan development?

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Delaware documented all plans are assessed non-visually each year as required by NRCS contracts with all practices visually inspected on-site during the lifespan of the BMP as required by USDA by NRCS or District planners.

There is some discrepancy between what is presented in this BMP verification document for nutrient management planning and what we heard about the nutrient management planning program from DDA during our animal agriculture program assessment...

1. The BMP verification document states that “Nutrient management practices are regulatory and 100% of all practices are non-visually inspected annually through agencies involved in the nutrient management process – Conservation Districts and NRCS develop the plans” (p.70). However, DDA does not have copies of all NMPs or even know everyone who has an NMP. While some NMPs are developed by the CDs and NRCS, many other NMPs are developed by private nutrient consultants. In DE, farmers are supposed to notify the DE Nutrient Management Commission (DNMC) within 60 of completing an NMP. However, farmers do not need to submit their NMPs to DDA for DDA’s files nor for review/approval.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments: Reviewer is not familiar enough EPA’s DE animal agriculture program assessment to know if this comment was partially addressed. Given there were almost no changes made to the Nutrient Management section of the program plan, it’s unlikely this comment has been addressed in the November 16 revised version.					

The BMP verification document states that “DDA inspects 60 farms annually for compliance” (p. 70). I can’t tell you what percent of the NMP universe that is exactly, because DDA does not know how many NMPs there are in Delaware. DDA’s best estimate is ~1,072 NMPs, which is based on the number of NMP annual report forms that DDA mailed out to AFOs and crop-land farmers in 2014. However, as explained above, there is a glitch in DDA’s data system that deletes any farmer from the database that does not submit an annual report. Therefore, if a farmer did not submit an annual report in 2011, that farmer would be removed from the database and would not be tracked by or receive further communication from DDA. DDA is working to fix this glitch. Based on the estimate of 1,072 NMPs, DDA conducts compliance visits at ~6% of NMP facilities annually. This is lower than DDA’s estimate of 10% in the BMP verification documentation (p.71).

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

DE states that “All (100%) nutrient management plans are inspected upon implementation and recorded with DDA (via annual reports)” (p.72). As described above, this is not what DDA explained to us during the animal agriculture program assessment. In DE, farmers are supposed to notify the DE Nutrient Management Commission (DNMC) within 60 of completing an NMP. However, farmers do not need to submit their NMPs to DDA, neither to be included in DDA’s files nor for DDA to review/approve. Farmers must maintain the NMPs on site, and DDA is supposed to verify the NMP when it conducts its compliance visits. The statement that all NMPs are inspected upon implementation does not correspond to what DDA explained to us.

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

For Animal Waste Management Systems, the verification procedures focus on cost-shared systems and systems at permitted CAFOs. What procedures is Delaware going to use for non-cost-shared, non-CAFO animal waste management systems?

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware clearly states it does not have plans to verify non-cost shared practices at this time.		

Forestry [Yellow]

DE's Protocol for follow-up inspections seems to depend entirely upon current procedure (generally 5-10%), but could be more clear. In the narrative, DE points out that timing of inspections is important, but says it has no influence over timing. It should be noted that DE has reported "0" RFB for the past several years despite their high reliance in the WIP.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: In Delaware, DDA DFS installs most large scale buffer and tree planting projects. DFS inspects 100% of plantings post installation. Approximately 1 year after planting, DFS inspects the projects again (100%). One hundred percent of the buffer and tree planting projects are spot checked on average every 7.5 years by the cost sharing agency (NRCS, DFW, DFS, etc). During this time, projects are assessed for water quality impacts. NRCS verification timing will be at the organization's discretion. A final inspection is completed at contract or lifespan expiration (approximately 10-15 years).

FWG guidelines suggest 100% site inspection at planting or immediately prior; a second inspection during the period a buffer is becoming established (1-4 years) to assure that any maintenance problems are detected and corrected, and risks identified; inspections during years 5-10 based on a risk-based statistical sampling with 80% confidence; and 100% inspection near the end of contract to encourage/facilitate buffer retention. DE's Protocols do not follow this.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Delaware's protocol addresses request for 100% inspection at planting and 100% inspection near the end of contract, it still does not address the FWG guidelines for two sets of inspection during years 1-4 and then again during years 5-10.

Do proposed site inspection methods focus on common maintenance issues specifically related to water quality standards such as channelization or concentrated flows?

Not found in DE's protocol.

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

Do statistical sampling methods document how they demonstrate a clear improvement over the current sampling rate? (The recommended rate is 80% confidence in reported practices)

Not found in DE's protocol.

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

Does the program rely upon qualified local forestry partners for tracking, reporting, and maintenance for expanded tree canopy practices?

The protocol covers cost-share urban tree planting. Tree Canopy practices are represented by a new Management Strategy as well as an Expert Panel to determine efficiencies of the BMP. DE Forest Service is helping the FWG to develop improved tracking procedures accordingly. Possible areas of improvement are tracking and crediting urban tree planting performed by localities under stormwater permits or voluntary tree planting.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments: Delaware's plan is still limited to/focused on tracking and reporting by DFS foresters.					

Delaware does not explain how they are going to track practices after 15 years.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
<p>Comments: Once project lifespan or contract expires, Delaware will use high resolution imagery and Light Detection and Ranging (LiDAR) data to determine the existence of riparian forest buffer and tree planting practices. The Delaware Forest Service has quantified the spatial extent of forests and urban tree canopy coverage in the State. Periodically, DNREC and DFS will use these original datasets developed by DFS to determine if a net gain occurs over time and practices exist upon expiration. Additionally, the U&CF with DNREC will utilize Davey i-Tree software to set tree canopy goals and facilitate proper urban forest management strategies.</p>		

Need to clarify inspection timeline for some BMPs (e.g. page 94-96).

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

A follow-up inspection should added for high-risk plantings.

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

No justification for sub-sampling percentages.

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

Did not see evidence that the baseline acres for each practice is tracked in order to ensure there is a net gain of acres over time.

Was this comment sufficiently addressed?					
Addressed:	<input checked="" type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: The Delaware Forest Service has quantified the spatial extent of forests and urban tree canopy coverage in the State. Periodically, DNREC and DFS will use these original datasets developed by DFS to determine if a net gain occurs over time and practices exist upon expiration. Additionally, the U&CF with DNREC will utilize Davey i-Tree software to set tree canopy goals and facilitate proper urban forest management strategies.					

Partner with Delaware Forest Service and NGOs to augment the NRCS buffer inspections.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input checked="" type="checkbox"/>	Not Addressed:	<input type="checkbox"/>
Comments: DFS Foresters are involved, but not NGOs.					

Should add relevant portions of referenced documents into the main document so that reviewing additional materials is not required for basic comprehension of the program plan.

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

Stream Restoration [Green]

Need to provide answers to the questions in the Panel's stream restoration evaluation form in the revised verification program plan.

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

Need to clarify the inspection time frames between the text on page 108 and Table 2.3.1.1 on page 107 after three years.

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

Need to define heavy storms.

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

Relying strictly on visual inspection and not functional assessments as recommended by the Stream Health Workgroup’s guidance. If post-construction inspections are only visual, the inspection may not be able to truly address function, and stability of hydrology and vegetation.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware expanded its description of its stream restoration verification protocols to provide more detailed documentation on the actions that an inspector would carry out (see pages 108-109).

Unclear from the text on pages 108-109 exactly how Delaware plans to implement the USFWS Rapid Stream Restoration Monitoring Protocol methodology—right now that USFWS protocol is strictly referenced and briefly described in the text.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware expanded its description of its stream restoration verification protocols to provide more detailed documentation on the actions that an inspector would carry out (see pages 108-109).

There were a lot of citations to outside documents. Pull relevant details into the body of the document so it offers a complete picture of the program.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware described the elements of the USFWS’s *Rapid Stream Restoration Monitoring Protocol* within its revised program plan (see pages 108-109).

There is 100% visual inspection, but please clarify who is the non-regulatory agency performing the inspections to assess the project design and installation?

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: The evaluations will be conducted through DE DNREC's Division of Watershed.

The Panel asked Delaware to address what occurs after initial 5 years of inspections and spot checks.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware states that "following the first three years, projects will be inspected at least once every five years as well as after heavy storm events, which are defined as a 10 year storm recurrence interval." (page 108)

The Panel asked Delaware to address function, not just presence in developing and implementing its stream restoration verification protocols.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware expanded its description of its stream restoration verification protocols to provide more detailed documentation on the actions that an inspector would carry out (see pages 108-109).

Does the program require a post-construction certificate to ensure that the project was installed properly, meets its functional restoration objectives, and is hydraulically and vegetatively stable?

No, could not find any reference to post construction certification

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" 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 criteria for when a credit will be removed or specific time period given for correction.

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

Are separate procedures necessary, and if so, identified for verifying restoration projects built for the purpose of nutrient trading within a state or to offset new loads elsewhere in the watershed?

No, doesn't appear applicable.

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 to address the end of life span, re-verification, continued reporting and crediting procedures.

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

Should move the urban street sweeping practice into the stormwater verification section, and ensure appropriate consistency with the inspection approach for other urban stormwater practices.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware provided more detailed documentation on pages 125-127.		

Please ensure the tables and text are fully consistent on pages 117 and 119 in relation to timing of visual inspections and practice lifespan.

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

Includes confusing statements about inspection by the owner and then giving a report to the owner.

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

MS4 program and any other post-construction stormwater verification protocols should be cited and clearly documented. Narrative and tables seem to be limited to erosion and sediment control stormwater regulations.

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

The Panel asked that post construction inspections conducted by the owners also require an independent check on those inspections—some level of validation.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: See text added on pages 126-127.		

For stormwater, there is a large table of BMPs with their definitions and a very brief discussion of where and how data is actually generated. There is no discussion of MS4s and associated post-construction BMPs, only street sweeping and E&S practices are referenced.

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

Wastewater (Red)

Need to state that there are four significant wastewater treatment facilities which discharge to land and surface water within Delaware's Chesapeake Bay watershed and where they stand in terms of reaching their Bay TMDL permit limits.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Text added to page 135.		

Onsite systems inspections appear to be only complaint-driven rather than consistent with the recommendations from Table B-17 of the Onsite Wastewater Treatment Expert Panel report.

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

Need reference to/documentation of wastewater treatment discharge facilities and their verification procedures (e.g., DMR, annual reports, etc.).

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

No inspection of on-site treatment systems.

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

Please explicitly state that there are no CSOs in Delaware's portion of the Chesapeake Bay watershed.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware has recently identified one CSO in the Town of Laurel. The town, through inspection and testing, has identified one section of the community which has storm drains connected to the wastewater treatment plant system. During heavy rain events (greater than 2 inch event) there is a possibility for discharge to occur. The Town of Laurel has a plan in place to separate the sewer system at five locations within town to prevent untreated overflows to the local waters. Construction is expected to begin by September 2016 and completed by May 2017. (Page 137)		

The Panel asked Delaware to review and answer the applicable wastewater treatment evaluation review questions contained within Appendix A on page 51-52 in the Panel's August 7th report to the jurisdictions in their revised wastewater verification protocol documentation.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware addresses most of the original evaluation questions, but not the questions addressing non-significant wastewater treatment facilities.

What is the verification methodology and tracking for septic system pumpout?

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware addresses this comment on pages 132-134.

There could be a tracking and verification methodology for removal of any ongoing illicit discharges.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments:

Wetlands (Green)

There are a lot of details missing from this guidance that are likely included and cited in the NRCS wetland guidance. Need to extract the important procedures and concepts from the references documents add them into the main document.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware provided some additional text on pages 113-115, but still maintained their URL link to the more detailed documentation in NRCS's Wetlands Reserve Program manual as recommended by the Panel.		

Need to clearly cite the outside guidance documents and provide URL links for further information.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware provided URL links to the more detailed documentation in NRCS's Wetlands Reserve Program manual as well as the specific NRCS verification sheet.		

Make consistent the reference to 5 years in the text on page 111 vs. reference to 10 years in the Table 2.3.2.1 on page 110.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Both the table and the text reference 5 years as the period in which annual monitoring will take place over; the reference to 10 years in Table 2.3.2.1 is the overall life span for the practice.		

Unsure if onsite monitoring was required within 3 years following construction or whether aerial imagery is used for remote observation of long-term monitoring of wetland BMPs.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments: The revised plan doesn't add any further clarity about this point.		

Unclear whether a project file is maintained by the installing agency for each restoration project installed. Please clarify.

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

Need to address what happens at the end of the established life span and plans for re-inspection.

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

Do follow-up inspections stop after 15 years? What happens to the practices after that point?

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

The Delaware protocol includes many recommended elements, but would benefit from more detail. The protocol does not mention if the predominance of native vegetation, or other field indicators will be determined, but this may be covered in the habitat determination. Wetland restoration is stated to also include creation and enhancement. However, there is not yet an efficiency assigned to enhancement/rehabilitation projects, and it is not clear if these projects can be identified once submitted to NEIEN.

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

Final Recommendation

What is your recommended EPA decision on this revised program plan?		
Approval: <input type="checkbox"/>	Conditional Approval: <input checked="" type="checkbox"/>	Return w/comments: <input type="checkbox"/>
Rationale for Your Recommendation: Delaware's revised BMP verification program plans is generally consistent with the basinwide framework and its sector verification guidance. The text and tables are easy to read and understand. However, there are still a number of comments which were only partially addressed or not addressed at all.		

Delaware Agriculture

It appears there is no plan to verify Resource Improvement projects or non-cost share agricultural conservation practices; only cost-shared, regulatory and permitted practices appear to be the focus of verification—please confirm that this is the case.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
<p>Comments: Delaware acknowledged that this was the case, but did not amend plan to address resource improvement projects or non-cost share practices. “Delaware’s verification program focuses on cost shared, regulatory, and permitted practices. In the future, as Delaware implements the verification program, resource improvements will be incorporated.” (p.59)</p>		

Plans for follow up inspections were not clear across many of the practices, with some contradictory information in the table versus the supporting text.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
<p>Comments: I am not sure what practices the expert panel was specifically referencing. However, Delaware did not appear to add any additional language clarifying the frequency of follow-up inspections for any of the agricultural BMPs.</p>		

Most practices have a 100% review on initial implementation. The Panel was not sure how the 10% of subsampled practices are selected, as no documentation is provided. The Panel assumes that since multiple agencies report the data, that there are multiple methods for selection (NRCS, SCDs). Need to provide some documentation on the selection of subsamples.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input checked="" type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Delaware explains that 10% sub-sample will be “randomly chosen” for these sub-sampled practices.		
For nutrient management planning: “DDA reviews 60 plans per year or approximately 10% annually. Most plans are randomly chosen for review; few are complaint driven. Additional checks are conducted by NRCS during farm record review for Conservation Security Program.” (p.70)		
For conservation tillage transect surveys: “In addition to the original survey team, a Quality Assurance and Quality Control team retraces the original routes after the initial survey is conducted to ensure the data captured is consistent. The QA/QC team consists of members that did not participate in initial survey, but from the same organizations. Using the same GPS coordinates as marked in the initial survey run-through, the team checks and confirms or rejects the initial observations on at least 10% of the observations. Members on the QA/QC team have access to the original observations and are able to compare them with their own judgments. The QA/QC team begins immediately after the initial observations are made. The team is able to verify a random sample of the initial observations; at most, two days after the initial observations are made. This ensures that the conditions originally observed are as close as possible to what was viewed in the QA/QC runs.” (p.80) “Additionally, a 10% sub-sample is made by the Quality Assurance and Quality Control Team also described above.” (p.82)		
For livestock waste management systems, animal waste management systems, and poultry waste management systems, and mortality composters: “Follow-up inspections (10%) will be randomly chosen, while ensuring no successive duplication, by the Quality Assurance Officer from practices entered into the NPS BMP database. Additionally, inspections may be conducted by the implementing agency for contract requirements; those inspections will be reported to the Quality Assurance Officer.” (p.85)		
For grass buffers, land retirement, and water control structures: “Follow-up inspections (10%) will be randomly chosen, while ensuring no successive duplication by the Quality Assurance Officer from practices entered		

into the NPS BMP database. Additionally, inspections may be conducted by the implementing agency for contract requirements; those inspections will be reported to the Quality Assurance Officer.” (p.90)

For stream restoration:

“Following the first three years, projects will be inspected at least once every five years as well as after heavy storm events, which are defined as a 10 year storm recurrence interval. This will entail verifying at least 10 percent of reported practices every year.” (p.108)

For wetland restoration:

“Once restoration has been implemented all monitoring will occur at least once every 5 years through an onsite visit. The site may be monitored through offsite or remote sensing methods the other four years. This will entail verifying at least 10 percent of reported practices every year.” (p.112)

Given Delaware’s plans to review only 5% of practices every year, they need to provide more detailed documentation supporting this choice of a subsampling amount and whether/how this is related to Delaware’s Watershed Implementation Plan’s list of practices.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: This 5% subsampling applies to forest buffers, tree planting, and urban tree planting. Delaware does not explain how the 5% sub-sample is selected.
“5% annually or 100% by end of contract lifespan ” (p.94)

Visual inspections for nutrient management plans seem to be complaint driven rather than the systematic, random inspections that would be necessary to ensure public confidence (page 67, 68, 70).

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: This was addressed.
“One hundred percent of all nutrient management plans are inspected at initial implementation or plan conception. Several agencies conduct follow-up inspections; however, DDA follows compliance requirements per nutrient management regulations. DDA reviews 60 plans per year or approximately 10% annually. Most plans are randomly chosen for review; few are complaint driven. Additional checks are conducted by NRCS during farm record review for Conservation Security Program. All plans comply with Delaware’s Nutrient

Management Law and P Site Index and are inspected or renewed after plan lifespan.” (p.70)

No reference to plans for independent review of any collected or reported data.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: I am not sure what data the expert panel was specifically referencing, but Delaware does not appear to address independent review of collected/reported data for any of the agricultural BMPs.

List Delaware’s set of high priority BMPs on which the state will focus most of its verification efforts and include percent contributions to total planned WIP reductions.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Delaware addressed this comment.

“The list below contains the high priority Agriculture BMPs in which Delaware will focus most of its verification efforts and includes percent contributions to total planned WIP nutrient reductions.

Agriculture Best Management Practice	Relative contribution to WIP-planned load reduction		
	Nitrogen	Phosphorus	Sediment
Cover Crops (traditional and commodity)	22.1%	*	*
Conservation Plans	3.9%	4.0%	6.9%
Nutrient Management	5.0%	6.8%	7.6%
Manure Relocation	9.0%	8%	*
Conservation Tillage	11.2%	7.3%	55.8%
Animal Waste Management Systems	10.2%	23.7%	*
Mortality Composters	*	1.7%	*
Grass Buffers	10.3%	6.7%	6.5%
Land Retirement	1.0%	*	*
Water Control Structures	1.8%	*	*

*denotes no significant relative reduction in nutrients or no efficiency reduction credited

” (p.59)

Inspection practices differ from BMP to BMP and program to program. While the provided tables and narrative do a good job of explaining the programs, a justification of the differences would be useful.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: I’m not sure what the panel was looking for, but Delaware did not appear to respond to this comment.

[Empty box]

Does the program plan commit to conducting annual conservation tillage surveys at 90% confidence?

Was this comment sufficiently addressed?
 Addressed: Partially Addressed: Not Addressed:

Comments: This is beyond my expertise. Delaware does state that EPA already approved its methodology as accurately estimating tillage.
 “In October 2015, EPA’s statistical team reviewed Delaware’s approach for generating and verifying BMP data for both conservation tillage and cover crops. The team verified that Delaware’s survey will accurately estimate tillage and cover crop BMPs with the proposed 100% verification protocol and 100% statistical sampling.” (p.78)

For agriculture, transparency is a documented issue for the public. Is there any value to a small, comparative study of CAFO performance on BMPs to inform the public, and a discussion of comparative aggregate AFO performance?

Was this comment sufficiently addressed?
 Addressed: Partially Addressed: Not Addressed:

Comments: I’m not sure what the panel was looking for, but Delaware did not respond to this comment.

The Panel pointed out that Delaware did not document any verification protocols for non-cost shared practices.

- a. Sussex County and the Delaware Department of Agriculture has been actively tracking and reporting non-cost shared practice. Delaware has not had time yet to document verification protocols for non-cost shared practices but plans to do so.

Was this comment sufficiently addressed?
 Addressed: Partially Addressed: Not Addressed:

Comments:
 “Sussex County and the Delaware Department of Agriculture has been actively tracking and reporting non-cost shared practice. Delaware has not had time yet

to document verification protocols for non-cost shared practices but plans to do so.”

The Statistical Sampling Design Review Team has expressed concerns about the 110 mile transects and 460 samples selection by Delaware and its lack of relationship to the relative acreages of cropland compared to total land areas.

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. Delaware did not provide any further explanation/justification about the 110 mile transects and 460 samples selected.

“The driving route is required to be at least 110 miles long in each of Delaware’s three counties.” (p.80)
“The direction of the route was not important, however, the route was required to be at least 110 miles long in each county.” (p.244)

“To obtain a statistically reliable data set, **approximately 460 cropland sites will need** to be observed along the route.” (p.80 and p.246)

Table D1-2 does not contain all of the highest priority BMPs from Appendix P that are detailed in the report, such as Soil and Water Conservation Plans and Nutrient Management Planning.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware did not make any changes to Table D1-2.

Does DE really inspect 100% of cover crop practices annually, including being “inspected for compliance or failure”? That was 30,921 acres in 2014, and projected to be 85,619 acres in 2025. It sounds more like they are conducting a transect survey of a small sample of cover crop acreage, then extrapolating this transect survey data to the larger dataset.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
<p>Comments: Delaware did not add additional language to address this comment. However, the report originally stated and still states that 100% of cover crop practices are inspected annually.</p> <p>“100% of all practices are inspected after planting and destruction of crop.” (p.61)</p> <p>“After certification, District planners map the acres and physically inspect each field for program compliance. In the spring, a destruction form is mailed to the farmer and they must certify in writing each field as destroyed. The destruction certification form captures acres destroyed, acres harvested, destruction method, and destruction date. The planners go out again to inspect each field to ensure the cover crop has been destroyed.” (p.61)</p> <p>“All (100%) cover crop practices are inspected annually. Inspections are made after implementation and after destruction/harvest.” (p.62)</p>		

For Soil and Water Conservation Plans, on page 64, does the Initial Inspection Frequency of “1/year” mean that every soil and water conservation plan is inspected once within the first year of plan development?

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
<p>Comments: Delaware did not address this comment. The report states that plans are checked within the practice lifespan, which is not consistent with being checked once per year.</p> <p>“All plans are inspected within the practice lifespan by NRCS or Conservation Districts. Additionally, checks are made upon implementation and before contract end dates by the funding agency; hence, BMPs are verified for functionality.” (p.66)</p>		

There is some discrepancy between what is presented in this BMP verification document for nutrient management planning and what we heard about the nutrient management planning program from DDA during our animal agriculture program assessment...

1. The BMP verification document states that “Nutrient management practices are regulatory and 100% of all practices are non-visually inspected annually through agencies involved in the nutrient management process – Conservation Districts and NRCS develop the plans” (p.70). However, DDA does not have copies of all NMPs or even know everyone who has an NMP. While some NMPs are developed by the CDs and NRCS, many other NMPs are developed by private nutrient consultants. In DE, farmers are supposed to notify the DE Nutrient Management Commission (DNMC) within 60 of completing an NMP. However, farmers do not need to submit their NMPs to DDA for DDA’s files nor for review/approval.

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments: Delaware did not address this comment. As the comment notes, the ag program assessment determined that DE does not receive all annual reports and does not track everyone who has an NMP. Therefore, DE is not inspecting or reviewing 100% of all nutrient management practices annually.		
Delaware also indicates in their verification plan that “Nutrient management planning acres are calculated using the total number of acres from the DDA annual reports database with a 5% adjustment.” I am unsure what the 5% adjustment refers to, since it is not explained in the report and the CBPO is unaware of this adjustment. Is Delaware assuming that the sum of the annual reports underestimate the total acreage under nutrient management planning and wants to receive credit for additional acreage? Adding 5% arbitrarily seems to be the opposite of the goal of the BMP verification plan.		

The BMP verification document states that “DDA inspects 60 farms annually for compliance” (p. 70). I can’t tell you what percent of the NMP universe that is exactly, because DDA does not know how many NMPs there are in Delaware. DDA’s best estimate is ~1,072 NMPs, which is based on the number of NMP annual report forms that DDA mailed out to AFOs and crop-land farmers in 2014. However, as explained above, there is a glitch in DDA’s data system that deletes any farmer from the database that does not submit an annual report. Therefore, if a farmer did not submit an annual report in 2011, that farmer would be removed from the database and would not be tracked by or receive further communication from DDA. DDA is working to fix this glitch. Based on the estimate of 1,072 NMPs, DDA conducts compliance visits at ~6% of NMP facilities annually. This is lower than DDA’s estimate of 10% in the BMP verification documentation (p.71).

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

Comments: Delaware did not address this comment.

DE states that “All (100%) nutrient management plans are inspected upon implementation and recorded with DDA (via annual reports)” (p.72). As described above, this is not what DDA explained to us during the animal agriculture program assessment. In DE, farmers are supposed to notify the DE Nutrient Management Commission (DNMC) within 60 of completing an NMP. However, farmers do not need to submit their NMPs to DDA, neither to be included in DDA’s files nor for DDA to review/approve. Farmers must maintain the NMPs on site, and DDA is supposed to verify the NMP when it conducts its compliance visits. The statement that all NMPs are inspected upon implementation does not correspond to what DDA explained to us.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Delaware did not address this comment. The ag program assessment determined that DE does not inspect or review all NMPs upon development or initial implementation and that DE does not receive all annual reports.

For Animal Waste Management Systems, the verification procedures focus on cost-shared systems and systems at permitted CAFOs. What procedures is Delaware going to use for non-cost-shared, non-CAFO animal waste management systems?

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Delaware added language that Delaware’s verification procedures do not currently address non-cost shared, non-CAFO practices.

“Delaware’s verification program focuses on cost shared, regulatory, and permitted practices. In the future, as Delaware implements the verification program, resource improvements will be incorporated.” (p.59)

Delaware Stormwater

1. Is the existing MS4 permit inspection and maintenance framework the foundation of the jurisdiction's program? **No.**

Was this comment sufficiently addressed?		
Addressed: <input type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
 Comments: DE is relying mostly on their construction program and new development and redevelopment regulations to achieve reductions in the urban sector.		

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: Verification not linked to MS4 program. See below answer.		

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: DNREC performs triennial review of delegated agencies (NCCCD, KCCD, SCCD, DelDOT) for E&S BMPs. Structural BMPs are scheduled to be inspected every 3-5 yrs. (p 122 Sec 2.4.1.2)		

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: Partially Addressed: Not Addressed:

Comments: **Currently no MS4s within the CB watershed. Designation expected to change due to the 2010 census, but still a very small source. As a result, DNREC is not relying on the MS4 program to achieve urban reductions.**

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: Partially Addressed: Not Addressed:

Comments:

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: Partially Addressed: Not Addressed:

Comments: **Part of DNREC triennial review**

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?

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: **Credit duration/lifespan based on CBPO spreadsheet for BMPs (p. 125)**

8. Are verification efforts prioritized according to a practice's contribution to the overall TMDL pollutant reduction in a state's urban source sector? **Yes**

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: **See p 55 Table D1-2**

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: Partially Addressed: Not Addressed:

Comments: **See p 119 Table 2.4.1.1**

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: Partially Addressed: Not Addressed:
Comments:

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

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:
Comments:

Delaware Stream Restoration

Need to provide answers to the questions in the Panel's stream restoration evaluation form in the revised verification program plan.

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

Need to clarify the inspection time frames between the text on page 108 and Table 2.3.1.1 on page 107 after three years.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input checked="" type="checkbox"/>
Comments: Wording on page 108 is consistent with Table 2.3.1.1.		

Need to define heavy storms.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: A heavy storm is a ten year storm recurrence.		

Relying strictly on visual inspection and not functional assessments as recommended by the Stream Health Workgroup’s guidance. If post-construction inspections are only visual, the inspection may not be able to truly address function, and stability of hydrology and vegetation.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Delaware plans to develop a function based assessment. It should describe a timeline or possibly cite current models for functional assessment as models.

Unclear from the text on pages 108-109 exactly how Delaware plans to implement the USFWS Rapid Stream Restoration Monitoring Protocol methodology—right now that USFWS protocol is strictly referenced and briefly described in the text.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Page 109 explains in more detail how the Protocol will be implemented.

There were a lot of citations to outside documents. Pull relevant details into the body of the document so it offers a complete picture of the program.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments:

There is 100% visual inspection, but please clarify who is the non-regulatory agency performing the inspections to assess the project design and installation?

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: This does not seem to be addressed and should list the non-regulatory agency performing the inspections in the next version of the BMP.

The Panel asked Delaware to address what occurs after initial 5 years of inspections and spot checks.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: This does not seem like it was addressed in the BMP and should be addressed in the next version of the BMP.

The Panel asked Delaware to address function, not just presence in developing and implementing its stream restoration verification protocols.

Was this comment sufficiently addressed?
Addressed: Partially Addressed: Not Addressed:

Comments: Page 108 – Delaware should include function as a method of assessment, adding it to it to Table 2.3.1.1 under the Method column.

Does the program require a post-construction certificate to ensure that the project was installed properly, meets its functional restoration objectives, and is hydraulically and vegetatively stable?

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments: This does not seem like it was addressed.					

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 criteria for when a credit will be removed or specific time period given for correction.

Was this comment sufficiently addressed?					
Addressed:	<input type="checkbox"/>	Partially Addressed:	<input type="checkbox"/>	Not Addressed:	<input checked="" type="checkbox"/>
Comments: Time criteria should be added to the BMP to give better guidelines.					

Are separate procedures necessary, and if so, identified for verifying restoration projects built for the purpose of nutrient trading within a state or to offset new loads elsewhere in the watershed?

No, doesn't appear applicable.

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

Delaware Wetlands

There are a lot of details missing from this guidance that are likely included and cited in the NRCS wetland guidance. Need to extract the important procedures and concepts from the references documents add them into the main document.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Page 70 to 92 – The Delaware draft plan provides BMP's from the National Conservation Practice Standards list that is tailored to the Delaware.		

Need to clearly cite the outside guidance documents and provide URL links for further information.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: The URL was placed in the document.		

Make consistent the reference to 5 years in the text on page 111 vs. reference to 10 years in the Table 2.3.2.1 on page 110.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Page 112 – The reference on page 112 discusses the table above.		

Unsure if onsite monitoring was required within 3 years following construction or whether aerial imagery is used for remote observation of long-term monitoring of wetland BMPs.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Page 112 – Discusses the timeline when on-site visits will occur		

Unclear whether a project file is maintained by the installing agency for each restoration project installed. Please clarify.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Page 114 – “Each Agency has separate verification databases and maintains files for implemented projects. These data are provided to the Quality Assurance Officer annually for Chesapeake Bay progress submissions. An outline of practice data submissions can be found in section B10 of Delaware’s QAPP.”		

Need to address what happens at the end of the established life span and plans for re-inspection.

Was this comment sufficiently addressed?		
Addressed: <input checked="" type="checkbox"/>	Partially Addressed: <input type="checkbox"/>	Not Addressed: <input type="checkbox"/>
Comments: Page 114 – “Once the practice is no longer in its lifespan, the state will inspect the possibility of hiring a seasonal employee through DNREC’s Wetland Assessment and Monitoring Program to inspect existing practices and update the inspection dates in the database upon successful functional verification.”		

Do follow-up inspections stop after 15 years? What happens to the practices after that point?

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: Page 116 “The lifespan of wetland restoration is 15 years. The code in the DE NPS BMP Database has been modified so that the lifespan/credit duration is added to the implementation date of a particular BMP to calculate the Lifespan End Date. Once the Lifespan End Date has been passed, that BMP will be tagged as “retired”.”

The Delaware protocol includes many recommended elements, but would benefit from more detail. The protocol does not mention if the predominance of native vegetation, or other field indicators will be determined, but this may be covered in the habitat determination. Wetland restoration is stated to also include creation and enhancement. However, there is not yet an efficiency assigned to enhancement/rehabilitation projects, and it is not clear if these projects can be identified once submitted to NEIEN.

Was this comment sufficiently addressed?

Addressed: Partially Addressed: Not Addressed:

Comments: It is unclear of the question or the request.