EPA's Approval of Maryland's
Revised Draft BMP Verification Program Plan

January 26, 2016

EPA has approved Maryland's November 14, 2015 revised draft BMP verification program plan. Approval means the program plan addressed all the Panel's feedback as well as workgroup coordinators and initial EPA feedback; provided plans and schedules for development of additional BMP verification protocols and procedures in those cases where protocols and procedures are not proposed; and was written and presented in a public friendly, easy to understand format/text.

Approval also means that Maryland can apply for 2016 WIP assistance funds and the state is approved to work with EPA on the award of Maryland's 2016 Chesapeake Bay Implementation Grant and Chesapeake Bay Regulatory and Accountability Grant.

Maryland provided the best program plans with the most in-depth, well formatted and structured, well referenced, with extensive URL links to more detailed documentation. The program plan contained excellent format and content, very easy to read and follow, well-structured and follows all the format and content guidance within the basinwide framework. Maryland had specific documentation for independent reviews for each BMP across all source sectors. Maryland fully addressed the vast majority of the comments provided to them. In response to the remaining major comments shared with them, Maryland responded in detail to each specific comment, providing EPA with documentation on how it addressed each comment in Maryland's revised final BMP verification program plan submitted to EPA on January 4, 2016.

Thanks for investing the time to develop responses to the major comments which EPA shared with Maryland. Given Maryland has already made the below described changes in the final revised BMP verification program plan submitted to EPA on January 4, 2016, EPA was well positioned to fully approve Maryland plan. Please turn your attention towards the two-year ramp up period and making continued refinements and enhancement to Maryland's BMP verification program.

Please email Rich Batiuk, at batiuk.richard@epa.gov, a quality assurance project plan approval page with the appropriate District signatures so that EPA can formally sign off on your excellent program plan.

Finally, for your reference and consideration as Maryland works to further enhance its BMP verification program over the coming two years, below please find EPA's responses to Maryland's responses to the remaining major comments. And attached please find a compilation of EPA's reviews of Maryland's November 14, 2015 Revised Draft BMP Verification Program Plan in the form of a series of evaluation forms.

EPA's Responses to Maryland's Response to Remaining Major Comments

Overall

• Need Maryland to provide a complete listing of those BMPs for which they have not yet developed verification protocols for yet along with a schedule for development of those protocols.

MD Response: A list of BMPs with identified protocols gaps has been identified and included in the revised document's Executive Summary. These BMPs are not big contributors to the State's overall WIP goals and therefore a schedule to develop these protocols has not yet been established.

EPA RESPONSE: Thanks for providing that level of documentation to keep the BMP verification process very transparent for our public audiences.

• There is recognition of federal facilities and federal lands in the urban stormwater and wastewater treatment sections, but no explicit references to the verification protocols employed by those facilities/land areas.

MD Response: Federal facilities and lands are covered under the same verification protocols established by COMAR for municipal and county stormwater entities along with any additional requirements of the Phase II MS4 permits, once approved by EPA. Additionally, federal point sources are subject to the same NPDES permit verification protocols as other WWTP facility owners such as counties and municipalities.

EPA RESPONSE: Thanks for providing that clear statement about BMP verification on federal facilities and lands. That's exactly the type of information that partners, stakeholders and the interested public need to fully understand how BMP verification will be carried out within Maryland.

Agriculture

• MDE CAFO program staff are not included in either the initial inspection or follow-up check for structural BMPs (Visual Multi-Year) or Agronomic BMPs (Non-Visual Single Year) such as Nutrient Management and Manure Transport, which are requirements of the CAFO GP. The BMP Verification Task Force does not currently include MDE CAFO inspectors.

MD Response: Regardless of CAFO status, initial BMP inspection and verification for structural agricultural BMPs are conducted by trained soil conservation district staff as part of the operation's Soil Conservation and Water Quality Plan (SCWQP). These BMPs are also generally associated with financial incentive programs, such as MACS or EQIP and are verified through MDA protocols for the life of the contract (Approximately 15 years). Additionally, all operations subject to MDA's Nutrient Management regulations, are eligible for annual Plan Implementation Evaluations that would verify the contents of a Comprehensive Nutrient Management Plan, including Manure Transport if existing.

As the CAFO permit authority, MDE does also inspect BMPs related to the general permit, but does not maintain an inventory of inspected BMPs from AFO inspections. Dialogue between MDE and MDA is being conducted to potentially begin collecting verification data from MDE for BMPs inspected as part of its permit compliance reviews. A framework and timeline for inclusion of this data has not been determined.

EPA RESPONSE: Thanks for providing that level of documentation to keep the BMP verification process very transparent for our federal oversight as well as public audiences. Please keep EPA in the loop on your continuing MDE/MDA dialogue on this topic.

Forestry

- Revised draft program plan still does not address urban tree canopy verification.

MD Response: *Does this comment refer to acres of existing tree canopy rather than urban tree planting? If so it is somewhat captured in the last comment for forestry verification practices. DNR does not currently report acres of existing tree canopy for credit although the state has high resolution baseline imagery from 2012. We anticipate using high resolution imagery collected by the CBP in the future to assess net losses or gains in canopy cover. However, it is still unclear how this new land use will be incorporated into the Chesapeake Bay Model.*

EPA RESPONSE: Thanks for providing the clarification and documentation. It's great to hear of Maryland's plans for using the Partnership's high resolution imagery into the future to assess net losses or gains in tree canopy cover.

- MD's Protocol is clear about the first visit, at inception, but it is not clear about a second visit that is needed during the establishment period (1-4 years) to assure that any maintenance problems are detected and corrected, and risks identified. Re-visits happen on 10% of the practice sites, presumably for the life of the contract (15 yrs), but there is no mention of a risk-based statistical sampling with 80% confidence, nor is there mention of 100% inspection near the end of contract to encourage/facilitate buffer re-enrollment or retention.

MD Response: *It is true that MD can improve upon verification of non-federal riparian forest buffer BMPs. As indicated in our verification narrative (Table 3-2), 100% of non- federal RFB's are visited between years 1-2 for tree survival and are replanted if stocking falls below an acceptable level. DNR is evaluating its capacity to perform statistical- based sampling along with aerial imagery for verification in the future, although there is no obligation in the funding programs to do so.*

In contrast to the comment, federal cost-share programs do include annual inspections and 100% of practices are evaluated prior to the end of the contract (see

Frequency section in Table 3-2 and "Documentation of Forest Riparian Buffers" on page 17 for additional details).

EPA RESPONSE: Thanks for providing insights into how Maryland is considering changes to how it verifies non-federal riparian forest buffers. Please continue to work with your partners on the Partnership's Forestry Workgroup as you consider how to improve verification of non-federal riparian forest buffers so other partners can learn from your experiences.

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

MD Response: *Forestry data generated through the Forest Conservation Act almost exclusively relies upon local planning agencies for tracking, reporting, and maintenance of expanded tree canopy practices.*

For all other programs reported by DNR, data are generated primarily by local MD DNR staff. This structure reduces the risk of double county forest BMPs with counties, local jurisdictions, NGOs, and community groups, although there may be efforts within MD that do not get captured.

EPA RESPONSE: Thanks for providing this additional documentation to address this question.

- Overall, there is a lack of verification for urban forestry practices, especially considering the reliance on urban RFB.

MD Response: *Verification for practices other than forest conservation easements and federal co-cost share practices is a current gap in our BMP reporting. The lack of funding for monitoring in many grant programs and staff capacity remains a significant barrier to expanding upon verification efforts in these areas.*

Of our urban forestry programs, urban RFBs represent an important component of the state WIP, yet we anticipate the reliance of urban RFBs to decrease in the 2017 state
WIP. This decrease is due in part to advances in our understanding of other urban BMPs, better estimates of the current forest cover of urban streams in MD, and limitations (i.e., impervious surfaces) to urban RFB expansion. DNR is evaluating its capacity to perform statistical-based sampling along with aerial imagery for verification in the future.

EPA RESPONSE: Thanks for recognizing this current gap in Maryland's BMP verification program and for your work over the coming 2-year ramp up period to refine and enhance your planned approach to verification of urban RFBs.

Stormwater

• Need to define the amount of time a locality/federal facility has to take corrective maintenance or rehabilitation to bring a sub-standard BMP back into compliance

MD Response: There are no set time frames in COMAR, but every jurisdiction needs to provide an effective enforcement program. Typically, this information would be found in local SOPs. Most jurisdictions provide follow-up inspections for BMPs with maintenance items or violations that are more frequent than the routine 3 year required inspection interval. Additionally, any violations are susceptible to penalties of up to $10,000 per day. MDE would review these protocols during a stormwater triennial review to ensure that a jurisdiction has appropriate enforcement procedures.

For model crediting purposes, this point is moot in that Maryland will only report individual BMPs for stormwater that were either constructed or inspected within the timeframe of credit valuation assigned by the Urban Stormwater Workgroup.

EPA RESPONSE: Thanks for providing these additional insights and documentation.

Stream Restoration

• Table 4-2 mentions visual inspections. A more robust process beyond visual inspection should conducted to ensure the BMP is meeting designed load reduction. More detail on is needed in verifying functionality which should include methods.

MD Response: MDE does not have a generic protocol, or a standard checklist, for verifying functionality of this BMP, it is known that local partners are providing additional post-construction inspection and assessments for projects, but each project is treated differently. Depending on the impacts and types of approaches for restoration, MDE and the US Army Corp of Engineers (USACE) both include additional project specific post-construction monitoring or assessment requirements in their permits.

Currently the department is gathering Standard Operating Procedures from the counties as well as some typical permit monitoring requirements from MDE and the USACE to properly document the level of verification that is actually occurring.

EPA RESPONSE: Thanks for providing your commitment to continue to further flesh out Maryland's stream restoration verification protocols. Over the coming two-year ramp up period, please continue to build this level of additional documentation into your annual updates of your quality assurance project plan.

Wetlands

· Verification plan provided for agricultural wetlands but not for urban wetlands.

MD Response: *In Maryland, the vast majority of wetland practices implemented in the urban sector are associated with the treatment of stormwater controls or stream restoration. The urban wetlands credits for these are accounted through the stormwater sector procedures. Therefore, Maryland does not have a current protocol for verification of urban wetlands, but may develop one in the future if practices as defined by the Chesapeake Bay Program Wetlands Workgroup become a more significant contributor to Maryland's WIP.*

EPA RESPONSE: Thanks for providing this additional documentation and clarification.