<div align="center">

BMP Verification Ad-Hoc Action Team
Meeting Minutes
September 10th, 2021
9:00 AM – 11:00 AM
Meeting materials: link

</div>

Summary of Actions and Decisions
Decision: The BMPVAHAT approved the August meeting minutes.
Action: Vanessa Van Note (Coordinator) will attend Ad-Hoc Meeting with the Wetlands Workgroup to discuss extending the credit durations of wetland restoration and wetland creation on Tuesday, September 28th.
Action: Vanessa Van Note (Coordinator) will work with the AgWG coordinator on options to address the recommendation from the Riparian Forest Buffer Expert Panel to convene an expert panel for the CBP Grass Buffers BMP.
Action: The Ad-Hoc Team's Leadership has discussed a solution to address the concerns raised in previous meetings. Over the next couple of weeks, the leadership will work with the CAST team on this proposal before bringing it back to the group in order to have a more productive conversation around partial credit.
Action: Elliott Kellner (Chair) and Vanessa Van Note (Coordinator) will work with Leon Tillman, NRCS, to determine next steps regarding CTA Practices in the Framework Document. Vanessa will figure out how to edit this section of the Framework Document.

Welcome, Introductions, Roll Call, *Elliott Kellner, Chair (WVU)*
- Welcome & Roll Call of participants
- **Decision:** The BMPVAHAT approved the August meeting minutes.
- **Announcement** - WQGIT August Meeting: Consensus on Forest/Tree Planting BMP Credit Durations, *Vanessa Van Note (Coordinator)*
- **Announcement** – Wetland Restoration and Creation, *Vanessa Van Note (Coordinator)*
  - **Action:** Vanessa Van Note (Coordinator) will attend Ad-Hoc Meeting with the Wetlands Workgroup to discuss extending the credit durations of wetland restoration and wetland creation on Tuesday, September 28th.
- **Announcement –** Grass Buffers, *Vanessa Van Note (Coordinator)*
  - **Action:** Vanessa Van Note (Coordinator) will work with the AgWG coordinator on options to address the recommendation from the Riparian Forest Buffer Expert Panel to convene an expert panel for the CBP Grass Buffers BMP.
- **Announcement** - Partial/Diminishing Credit, *Vanessa Van Note (Coordinator)*
  - **Action:** The Ad-Hoc Team's Leadership has discussed a solution to address the concerns raised in previous meetings. Over the next couple of weeks, the leadership will work with the CAST team on this proposal before bringing it back to the group in order to have a more productive conversation around partial credit.
- **Announcement** - CTA (Conservation Technical Assistance) Practices, *Vanessa Van Note (Coordinator)*

- ○ **Action:** Elliott Kellner (Chair) and Vanessa Van Note (Coordinator) will work with Leon Tillman, NRCS, to determine next steps regarding CTA Practices in the Framework Document. Vanessa will figure out how to edit this section of the Framework Document.
- **Next Meeting**: Friday, October 8th, 9:00 - 11:00 AM.

BMP Verification Research Projects, *Mark Dubin, UMD.*
Mark presented on several BMP Verification research projects that he is currently involved in, such as opportunities regarding data sharing, baseline agricultural production data, and specific BMP implementation.

Discussion
Dana York: Do you have results on the viability of your work so far?
Mark Dubin: Yes. The VA and PA data sharing agreements are still in process, so we don't have those yet. Results from earlier surveys are currently being used in PA and DE. The surveys from Penn State have been developed and are available. Virginia Tech survey should be available later this year. Remote sensing results from the pilot have just been released.
Sally Claggett (in chat): Mark, will CREP riparian forest buffers be equally considered in the VA project (not an NRCS practice per se)?
Mark Dubin: Typically, the CREP practices would be part of the FSA reporting, so that's why it's not part of the list.
Sally Claggett (in chat): Is there a reason for the 10% ground-truthing? It does not seem sufficient for self-surveyed/identified practices.
Mark Dubin: The AgWG developed an analysis report with Tetra Tech at the time and we looked at analytic qualifications for how to conduct those surveys. It was based on analytical research from other projects and looking at metrics at opportunities for percent of confidence.
Matt Ehrhart (in chat): Mark, could you speak to the use of transect data in addition to specific site data in the modelling work.
Mark Dubin: When we're implementing transect surveys, we are GPS-ing the location points where the observations are being made, which is done through a prescribed transcript route time after time and allows us to identify change over time by creating a data overlay.
Matt Ehrhart: When it comes time to finalize datasets from model run, is the work from transects used as site data, rather than extrapolated to a larger land data based on proportionality to those transects?
Mark Dubin: It is based on land use from a county scale.
Matt Ehrhart: For a county then, would the information supersede individual site information for BMPs? The model wouldn't be using the site data?
Mark Dubin: Yes. Typically, the data reported is not GPS specific, it is aggregated.
Dave Montali: Do you have a plan to synthesize the data?
Mark Dubin: This is the first step towards that. We want to assess the results and see where the opportunities lay. Hopefully after the PA and VA pilots we can look at developing a more comprehensive overview of the approaches and programs to see opportunities.
Teresa Koon (in chat): Do you know yet the percentage of farmers who agreed to allow access by VA to verify their practices that were past the life span?
Mark Dubin: Process has not moved to that point yet, so we don't know.
Leon Tillman (in chat): To Matt's question, could the transect data be used to provide a different baseline in the CAST Model, for example for crop residue or cover crop use?

Mark Dubin: There is structural capability of providing point source information through NEIEN but it's typically not used in agricultural settings.

Leon Tillman: Related to the VA verification pilot, how will that consider practices that are not in release status (not captured in the modeling)?

Mark Dubin: VA DCR created that list of BMPs, so it's not written into the MOA. It will probably be adjusted accordingly after we start.

Broader Programmatic Discussion, *Vanessa Van Note, EPA/Coordinator.*

The group continued their discussion from last month focusing on the broader programmatic issues of verification. The following questions were addressed: *If all states had full access to point location data, would they then have no obstacles in the way of executing their verification plans? What would a perfect verification program look like in your state with the resources that you currently have? What is feasible with the funding you have access to?*

Link to Jamboard: https://jamboard.google.com/d/1BSSfqOH4B-EINx7WU0rdQhBdVWQlDhsGBoLur7Ipk84/edit?usp=sharing

Discussion

Obstacles Outside of Point Source Location Data

Bill Tharpe: If we had all the data point and input locations for farm BMPs, our biggest hurdle would be change in ownership - finding out who it is and how to contact them. Also, some new owners aren't familiar with NRCS folks, so they can be restrictive on access to the BMPs. So even when we know where they are, access to them can be an issue.

Vanessa Van Note: Have you had any success getting past that?

Bill Tharpe: Sometimes through education, sometimes it's getting a tenant farmer to assist in the conversation. It can be hard to have a conversation with folks if we can't even figure out how to contact them.

Kate Bresaw: Human resources is a huge problem for PA. Technical inspection staff is really important.

Cassie Davis: NY seconds that.

Jennifer Walls: DE agrees. Staffing is an issue for us as well.

Dana York: Didn't MD have inspection teams? How did they set those up and were they successful?

Bill Tharpe: We've expanded our staff from 5 to 9 over the last year and half, so we have regional staff across the state that cover 2 to 4 MD counties each. We've been providing verification since 2016 but this is the first time that we are a fully staffed verification team. Most of our funding is federally funding stipends. We are partially funded through Chesapeake Bay Trust Fund.

Teresa Koon: In West VA, we have a voluntary approach to our practice implementation, so we need the farmers to let us come on the land. We'd need them to agree to verification of their practices.

Dana York: In MD, is it just the state practices that you're verifying? Are the farmers willing to give access?

Bill Tharpe: MD has access through existing agreements with NRCS and local SWCD so we also track EQUIP, the old CWI projects, etc. For the most part, active producers understand why this is needed. Of course there is always some skepticism at first.

Emily Dekar: NY needs additional staffing too. But as far as point location data, most of our districts are aware of any NRCS projects going on, so I feel pretty good about the data we have now. I know there is some data missing but most of our offices work pretty close with NRCS.

Vanessa Van Note: Statistical sampling, remote sensing, and producer surveys - have jurisdictions instituted any of those options and how have they worked for you?

Kate Bresaw: Yes, PA instituted a remote sensing pilot, but there were substantial holes that would need to be filled to use the data generated from that project. We rely on transect surveys for cover crops and conservation tillage. We also have a chesapeake bay ag inspection program where we inspect 10% of ag operations every year for nutrient management practices and manure management plans.

Vanessa Van Note: For the producer surveys in PA, are they beneficial? How might they be improved?

Kate Bresaw: We definitely get good data out of those. One caveat is that it creates another problem with aggregate data where we don't know specific location points.

Vanessa Van Note: NY or DE - how have you addressed your human resource issues?

Cassie Davis: For the stormwater sector, we worked with Tetra Tech to verify a certain percentage of the practices and they're going to use a statistical survey to see how it would look on a larger scale. We haven't implemented it yet, we just developed the QAPP for it.

Vanessa Van Note: When do you plan to implement it?

Cassie Davis: After we finalize the database for urban construction stormwater practices.

Vanessa Van Note: As far as the verification workforce, is that mostly conservation district staff?

Cassie Davis: It will probably be regional DEC staff, but we're not sure yet.

Emily Dekar: For the ag sector in NY, it's just district staff doing the verifications. There's a lot of turnover with staff as well. It depends a lot on the year.

Kate Bresaw: Same with PA, constant turnover with district staff. Which means we also have to use current staff to train the new staff.

Vanessa Van Note: Is it DEP responsibility to train the staff?

Kate Bresaw: NRCS plays a huge role in training, but it's a shared responsibility.

Vanessa Van Note: How long does it usually take to train?

Kate Bresaw: They go out into the field pretty quickly after starting, but they're shadowing other folks. Usual goal is to get them up to speed within a year.

Vanessa Van Note: For NY, is your experience similar?

Emily Dekar: Yeah, obviously it depends on the staff coming in and their experience. Also, NY was able to help fund verification this year which was an incentive for districts to hire staff.

Jennifer Walls: In DE, we work with our partners, but the challenge has been the lack of data, turnover in staffing, and lack of funding to develop a long-term program. It's all a challenge - being able to access properties, having point sources, having staff. And we don't have a 1619 agreement. Successes have been our partnerships and our ability to get data from them. For example, partnerships between NRCS, SWCD, Dept of Ag.

Clare Sevcik: Also, at DNREC we get aggregated data from our partners and we have very little point source data. We're not the ones going out and doing the verifications most of the time. We take our ag BMP inspections to our conversation districts and other partners so having a way to determine which BMPs need verification is huge for us.

Feasibility with Current Funding and Resources

Vanessa Van Note: What would a perfect verification program look like in your state with the resources that you currently have? What is feasible with the funding you have access to?

Jennifer Wells: I need to think that through to answer best. DE has grant funding available, but the challenge is prioritization of what's most important. We have to balance implementation as well, being able to meet the permitting goals and requirements and having the staff to support that, etc.

Cassie Davis: Also a consideration of time resources.

Dana York: Does MD have procedures for their teams that may be helpful to other states? I know NRCS went to some specialty teams like that.

Leon Tillman: Some are done with remote sensing; some are done in teams with monitoring. It differs from state to state based on remote sensing pilots as well. They have rolled out nationally, trying to do remote sensing for compliance, making that easier and streamlining the process.

Dana York: Maybe there are learning possibilities there or training for other states.

Jason Keppler: We established some protocols early on in MD when we established the verification team. As far as what the verifiers do on a daily basis and how they use the forms, data collections tools, etc. is all documented. As far as the funding goes, we were looking at a budget of $100 to $120,000 for each FTE which includes salary, fringe, vehicles, and all the tools they would need to do their job.

Leon Tillman: To circle back to remote sensing, that may get into a significant financial expense depending on how often they're going to need that data and at what scale.

Dana York: Maybe also just training people. NRCS might be able to train people.

Leon Tillman: I think folks would have to check with their state resource conservationists.

Meeting Adjourned

Participants
Jackie Pickford, CRC
Vanessa Van Note, EPA/CBPO
Elliott Kellner, WVU
Jason Keppler, MDA
Mark Dubin, UMD
Emily Dekar, Upper Susquehanna Coalition
Teresa Koon, WV DEP
Dave Montali, Tetra Tech
Kate Bresaw, PA DEP
Suzanne Trevena, EPA
Clare Sevcik, DE DNREC
Bill Tharpe, MDA
Cassie Davis, NYS DEC
John Maleri, DC DOEE
Dana York, Green Earth Connection
Jennifer Walls, DNREC
Jennifer Starr, LGAC
Matt Ehrhart, CAC
Leon Tillman, USDA-NRCS
Karl Blankenship, Bay Journal
Jack Murphy, USDA-NRCS
Jess Rigelman, J7
Loretta Collins, UMD/CBPO
Curtis Dell, USDA-ARS
Elizabeth Hoffman, MDA
Ruth Cassilly, UMD/CBPO

Jessica Rodriguez, DoD/CBPO
Normand Goulet, NVRC/USWG
Sally Claggett, USFS
Jeff Sweeney, EPA
KC Filippino, HRPDC/LUWG Co-Chair
Rebecca Hanmer

Meeting Chat
From Leon Tillman to Everyone:
Thank you Vanessa
From VANESSA VANNOTE to Everyone:
Thank YOU, Leon!
From sally claggett, usfs to Everyone:
Mark, will CREP riparian forest buffers be equally considered in the VA project (not an NRCS practice per se)?
From sally claggett, usfs to Everyone:
OK see the list-- but seems like a missed opportunity not to get more data on RFB since its such an important practice to CBP
rom sally claggett, usfs to Everyone:
Is there a reason for the 10% ground-truthing? does not seem sufficient for self-surveyed/identified practices
From Matt Ehrhart - Stroud to Everyone:
Mark, could you speak to the use of transect data in addition to specific site data in the modelling work
10:05:05 From Teresa Koon WV DEP to Everyone:
Do you know yet the percentage of farmers who agreed to allow access by VA to verify their practices that were past the life span?
From Leon Tillman to Everyone:
To Matt's question, so could the transect data be used to provide a different baseline in the CAST Model, for example for crop residue or cover crop use?
From Jackie Pickford (she/her) to Everyone:
Link to document:
https://www.chesapeakebay.net/channel_files/41821/development_and_approval_process_for_alternative_verification_protocols.pdf
From Jackie Pickford (she/her) to Everyone:
Link to JamBoard: https://jamboard.google.com/d/1BSSfqOH4B-EINx7WU0rdQhBdVWQlDhsGBoLur7Ipk84/edit?usp=sharing
From Kate Bresaw PA DEP to Everyone:
Can you please post the links to the Jurisdictional BMP Verification Program Development Decision Steps for Implementation and State Verification Protocol Components Checklist and State Verification Protocol Components Checklist?
From Jackie Pickford (she/her) to Everyone:
Yes Kate, I can make sure they're posted and distributed to the group.
From Kate Bresaw PA DEP to Everyone:
Thank you!