

Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Meeting Minutes

Thursday, August 7th, 2025

10:00 AM to 12:00PM

[Meeting Materials](#)

Summary of Actions and Decisions

Decision: The WTWG approved the [June Meeting Minutes](#)

Action: Caroline Kleis, WTWG Staffer, will edit the [membership list](#) posted on the WTWG webpage to include the most up to date list of voting members.

Action: If you have any questions regarding the QAPP emails sent out in early June, please contact Auston Smith, WTWG Coordinator (Smith.Auston@epa.gov).

Action: Caroline Kleis, WTWG Staffer, will follow up with voting members not present to get their votes on the decisional items before the WTWG.

Post Meeting Note: Following the call, Caroline followed up with the signatory and at-large members not present. Decisions listed below in these August minutes now represent the feedback received from all voting members.

Decision: The WTWG approved the Agroforestry EPEG Technical Appendix (recommendations) to establish credit for Silvopasture and Alley Cropping practices as Chesapeake Bay Program water quality BMPs in Phase 7, as outlined in the EPEG report. If the AgWVG, later this month, has any concerns, the decision will be brought back to the WTWG for continued discussion.

Decision: The WTWG approved the following decisions related to construction acres in Phase 7:

- a. **Mapping Construction With High-Resolution LULC data:** All patches of barren land uses (except “extractive barren”) that became at least 20% developed within 3-5 years represent “Regulated Construction”. Scaled NLCD annual change in development will be used to map historic construction and the CBLCM will be used to estimate future construction.

***Post Meeting Note:** This decision was updated in October 2025 to remove “bare shore” and “” from the parentheses.

- b. **Reconciling Mapped and Reported construction:** Construction acres reported at the county scale will be allocated to LRSEGs by the relative amount of a county’s mapped construction within each LRSEG.
 - i. If reported construction exceeds mapped construction in an LRSEG, remaining reported construction acres will be subtracted from the developed sector (proportionally by developed class).
 - ii. If reported construction is less than mapped construction, remaining mapped construction will be reclassified as “compacted pervious” (loading like “mixed open” in Phase 6).

Decision: The WTWG approved the following change to the methodology for buffer upland credit for Phase 7: distribute upland benefit from non-exclusion buffers proportionally to the load sources it is applied to and to stop providing upland credit to non-exclusion buffers from pasture.

Decision: The WTWG approved the proposed methodology for handling cover crop excess in Phase 7: 1) Credit commodity cover crops first, since it is a limited area 2) Credit traditional cover crops and traditional with fall nutrients cover crops second (taking the acres already occupied by commodity cover crops into account).

Action: Please provide any comments or feedback on the draft NEIEN appendix to Jess Rigelman (jrigelman@j7llc.com) by September 1st.

Meeting Minutes

10:00 **Introductions and Announcements** – Auston Smith, EPA (5 min.)

- **Decision:** The WTWG approved the [June Meeting Minutes](#)
- Meeting Security
 - Auston Smith, WTWG Coordinator, provided the group with an update on enhanced meeting security protocols. The updated protocols are as follows:
 - Meeting participants will now join with their cameras and microphones off. If you wish to speak, use the raise hand function to be granted microphone access.
 - Votes for decisional items will be collected via chat, and anyone who wishes to ask questions or register a comment should use the raise hand feature.
 - In the event that there is an unwanted intruder on the call, we will do our best to remove the participant as quickly as possible and lock or end the meeting. The staffer and coordinator will then share a new meeting link with those on the distribution list.
 - **Discussion:**
 - Norm Goulet (in chat): Who do we talk to about these new rules?
 - Megan Thyng (in chat): Norm, I work in CBPO's Data Center. I am happy to discuss this more with you and take any feedback to CBPO management. (thyng.megan@epa.gov)
 - Norm Goulet (in chat): Thank you, Megan. I'll contact you later on. I understand the problem, but I see some issues in their current state.
 - Norm Goulet (in chat): Should at least unmute the voting members
 - Caroline Kleis (in chat): Auston and Norm, I went ahead and allowed access for members and alternates, per Norm's request. We will continue to work with the IT team to determine best steps and welcome your feedback. Thanks!
- EPA Membership Update

- o Auston Smith, WTWG Coordinator, announced that there will be a new EPA voting member going forward, Kaylyn Gootman, Integrated Analysis Coordinator at the Chesapeake Bay Program Office. Kaylyn provided a brief introduction to the group.
 - o **Action:** Caroline Kleis, WTWG Staffer, will edit the [membership list](#) posted on the WTWG webpage to include the most up to date list of voting members.
- 2025 QAPP Update Email
 - o QAPP update emails were sent out in early June. The initial revised version of QAPPs for 2025 progress is due September 1st.
 - o **Action:** If you have any questions regarding the QAPP emails sent out in early June, please contact Auston Smith, WTWG Coordinator (Smith.Auston@epa.gov).
- Land Use Submissions Ongoing
 - o Land Use submissions are ongoing from August 1st- November 1st. This includes land use construction, harvested forest, and AFO/CAFO splits as well. September 1st is when the window for BMP submissions open up along with wastewater data submitted to the Point Source Data Submission Tool.
- Doodle Poll to Verification Teams
 - o Auston Smith, WTWG, noted that he hopes to send a Doodle Poll via email to verification teams, prior to the September WTWG meeting, to schedule a verification meeting between December 8-12.

10:05 **Approval of Agroforestry EPEG Technical Appendix** – Eric Hughes, EPA, and Katie Brownson, USFS (15 min.)

At the June WTWG meeting, the group heard an update on the Agroforestry Expert Panel Establishment Group (EPEG) evaluation of the NRCS CPS Alleycropping 311 and Silvopasture 381 for CBP BMP status. This month, Eric Hughes, EPA, walked the group through the final recommendations and Technical Appendix put forward by the EPEG and requested WTWG approval of the Technical Appendix.

Discussion:

Robbie Coville (in chat): Here from PA, where silvopasture by planting is also spurring increased tree canopy

Norm Goulet (in chat): What is the definition of mature canopy and how will it be measured? I don't have a recognition of discussing that definition in LUWG.

Katie Brownson (in chat): We won't be measuring mature canopy, this is just a proxy for how we would model it if we picked up 25% conversion of the practice area as forest in the land use. The "mature" canopy just clarifies that it won't have 25% canopy at the time the trees are planted.

Bailey Robertory (in chat): Just a heads up, even though I am the alternate voting member for MD, Dylan Burgevin will be voting for Maryland today instead.

Kevin Du Bois (in chat): Great presentation Eric!

Norm Goulet: The mature tree thing has got me a little concerned. Eric mentioned it a couple of times, and I saw a response from Katie. It seems pretty arbitrary. Somebody could come in, in a year or two, and say it's mature, and we know it's not. I think that it has to be tightened up somehow. I understand it's kind of difficult to do that. You can't say five years, but there's got to be some way of tightening that up. Yes, I understand that is to imply that it's not when it's first planted, but at some point, it's still not a mature forest or a mature tree.

Eric Hughes: I just want to make sure I'm understanding this correctly, and maybe Katie you can speak to some of the other forestry BMPs. When we're looking at something like a riparian forest buffer, the assumption is that when those are modeled, it's a mature buffer, right? We're not considering those and saying these are young trees for now, mature trees later. The assumption is it's mature. I guess I'm not fully understanding your question.

Elizabeth Hoffman (in chat): Preemptive to discussion - the ag sector has more to do in order to achieve TMDLs and that can be challenging without more tools in the toolbox. This effort builds upon previous EPA Crediting Task Force recommendations that the partnership should explore crediting of existing NRCS practices. When those suggestions went before the PSC in March 2024, all were in support. These BMPs are funded through both federal and state cost share programs, because of the many benefits they provide, and have been implemented for some time.

Bill Keeling (in chat): Neither practice has been reported in VA by NRCS. Alley cropping seems more straight forward to me at least more easily remote sensed.

Norm Goulet: You're right there. I did forget the fact that we're assuming that pretty large assumption there in the modeling. So, I get that.

Katie Brownson: I'd just add to that slightly that I think the guidance is that trees are going to be planted at a density that we feel confident will grow to have a 25% mature tree cover at the end, to help kind of justify the modeling approach that we're taking. We're assuming that 25% of the land is going to look like a forest.

Norm Goulet: That's helpful, Katie.

Elizabeth Hoffman (in chat): Agree. Alley Cropping is the more straight forward practice to model.

Samuel Canfield: Eric, I know we sent you comments on the questions that you asked. Did you have any thoughts on that? I don't know how those played into your final decisions or the most recent decisions on this. The one that I did want to think about is what is being reported by the "non local" NRCS, the NRCS information from the Bay Program? With these types of practices, if they're ever reported through that data, it's almost impossible to confirm these additional considerations that are added. Just a recognition of that. We do try to contact local NRCS. As I mentioned in our notes, those practices haven't been a focus of West Virginia, let's say that.

Eric Hughes: Thank you, Samuel, for that. I just want to thank you and the other jurisdictions that weighed in answering some of the questions we had as these were being developed. I want you to know that, absolutely, the responses that you provided us did go into the development of these, and they were all considered. To the point of how do we deal with the additional criteria for a state that maybe can't verify those, what it came down to at the end of the day was if we didn't have those additional criteria, we can't say definitively that there's a water quality benefit

associated with these practices. It's not really ideal. We wish that we'll get to the point where maybe the NRCS definitions are actually changed to get us to that point. But, at this stage, it's either we have the practices and the additional criteria or, unfortunately, they wouldn't qualify as a BMP.

Elizabeth Hoffman (in chat): I would caution that inability to report a practice should not prevent them from being reportable. That is a jurisdictional challenge, that each can work to address if they so wish. Same as any form of verification.

Katie Brownson: From what I understand, this isn't a unique situation with these practices. There are many NRCS practices that don't perfectly crosswalk with Bay Program BMPs, because we've had to impose additional criteria to verify that they're going to generate the water quality benefit that we're modeling them to generate. So, I think maybe this is just pointing to a bigger issue that's not unique to this BMP, but something that the partnership should try to grapple with and figure out if there's an approach to better crosswalk the NRCS data with the Bay Program BMPs.

Samuel Canfield: Thank you. Having it available if it ever becomes more easily reportable, that is important. But just a thought. Thank you, guys.

Eric Hughes: We hope to be able to get there, Samuel.

Dave Montali: I recall in some previous presentations that NRCS was contemplating adding criteria to their practice definition, but that was not so much 25% tree canopy. Was it, or wasn't it?

Katie Brownson: I think the big change NRCS was considering was kind of requiring that precision grazing, prescribed grazing, I forget what the NRCS term is. That would be kind of baked into the silvopasture practice going forward, but that hasn't been implemented yet. For silvopasture in particular, I know one big challenge is being able to disentangle the silvopasture by addition from the silvopasture by subtraction. I feel like that alone is really strong justification for needing additional verification on our side before crediting.

Dave Montali: Fair enough. I've boiled this down to we need a champion in West Virginia to be able to document that we're doing this practice, and we can't rely on NRCS in any way.

Elizabeth Hoffman (in chat): I will also echo Eric's sentiment. Some folks have not reported these because they were not "credited". Hopefully starting to get data on these will help the partnership understand more about their benefits and implementation levels across the watershed. We can always revisit as needed.

Olivia Devereux: That is well said. I'll just remind you the same is true for nutrient management, for tillage, and dozens of other BMPs I could name, like cover crops, but I'm not going to name them. NRCS does not work for the Bay Program, so the Bay Program does its thing and NRCS does its thing.

Auston Smith: Elizabeth, I know you were instrumental in this effort, and I know you had a hand raised. If you need to say anything before we move to a vote, by all means.

Elizabeth Hoffman: Maryland has a robust healthy soils program led by Nick Miller who was also in the EPEG. So, we do have access to this data. So, obviously, we are very much in a different position than others, but I guess I would caution, like others have said, that this is a larger theme of if ag is going to be doing more and asked to do more, they're going to need additional tools

in the toolbox. I think this is part of that effort. I think these are thoughtfully crosswalked to currently modeled practices, and I just think we should maybe even go into this with the best faith effort of the ability to start capturing this information and reporting it, and modeling it will help us understand it better. We can always revisit later. So, I just would not want this to not move ahead because of very local challenges in terms of data or verification, which we've been having for years now. So, I just want to make sure, like others have said, we keep those two distinct. Other than that, Maryland is fully in support of this and would appreciate either talking to others if they have questions or also just maybe kind of sharing what we've learned along the way from our program.

Auston Smith: Thank you so much, Elizabeth. Caroline, I think we can take votes verbally or via the chat, but I will turn to you to go through our list.

Caroline Kleis: Sure. We have a note from Bailey that Dylan will be voting from Maryland. Everyone should have the ability to unmute, but I will fill in the ones I do have.

Kevin Du Bois (in chat): 4

Samuel Canfield (in chat): 4

Dylan Burgevin (in chat): Maryland votes: 5

Bill Keeling (in chat): VA stands aside.

Norm Goulet (in chat): Standaside

Kaylyn Gootman (in chat): EPA is a 3.

Scott Heidel (in chat): PA is a 4

Matt Kofroth (in chat): 4

Cassie Davis: This is Cassie from New York State DEC. We're going to be a 4.

Auston Smith: As these are coming in, I'll just remind the group that the Ag Workgroup is in two weeks. So, please encourage your relevant member or colleagues to attend. They'll have final comments, but generally unless there's a showstopper or game changer on anything, we'd consider this vote to be reflective of what the Ag Workgroup determines as well.

Alicia Ritzenthaler (in chat): Can you give us those #s again (I can't recall the 3 vs. 4 vs 5, etc).

Caroline Kleis: Yes, and sorry, Alicia. Thank you for that comment. The numbers are 1-5, one is a stop, two is a hold, three is a stand aside, four is agreement with reservations, and five is endorse.

Alicia Ritzenthaler (in chat): 3

Auston Smith: Reminder that three and up would move forward. One or two, as Elizabeth mentioned, we'd encourage you to provide comments on why this needs to have a pause while more thought is provided.

Caroline Kleis: Looks like we are missing Delaware and Josh. If I missed anyone's vote, please let me know. Otherwise, I'll follow up offline to get everyone's votes, but it looks like this one is approved.

Auston Smith: Thank you, Caroline. Eric, Katie, Elizabeth, really appreciate all your efforts.

Katie Brownson: Thanks so much everyone. I appreciate the support for moving this forward.

Eric Hughes: Thanks, all.

Eric Hughes (in chat): I need to jump, feel free to follow up with me via email with any EPEG-related questions! hughes.eric@epa.gov. Thanks, all!

Action: Caroline Kleis, WTWG Staffer, will follow up with voting members not present to get their votes on the decisional items before the WTWG.

Post Meeting Note: Following the call, Caroline followed up with the signatory and at-large members not present. Decisions listed below in these August minutes now represent the feedback received from all voting members.

Decision: The WTWG approved the Agroforestry EPEG Technical Appendix (recommendations) to establish credit for Silvopasture and Alley Cropping practices as Chesapeake Bay Program water quality BMPs in Phase 7, as outlined in the EPEG report. If the AgWG, later this month, has any concerns, the decision will be brought back to the WTWG for continued discussion.

10:20 **Construction** – Peter Claggett, USGS (45 min.)

The WTWG last heard from Peter Claggett, USGS, in March 2025 to discuss methods for updating construction acres for Phase 7. Peter returned to the WTWG this month to provide an overview of the data received and walked the group through the decisional items related to construction acres for Phase 7.

Discussion:

Cassie Davis: I just want to confirm, at least for New York, that what you outlined with the permits, sometimes they will be open for five or six years, and they will slowly do the construction project over that entire time. So, when I review the acres distributed, it will be for the entire site, but it doesn't specify on this year we are going to disturb this area. and this year we are going to disturb this area. So, it just looks like a large number. So, I like that method, too, because it can kind of account for when that's occurring because we just get a lump sum of, for the lifetime of the permit, this is what's going to be disturbed.

Dave Montali: Same issues in West Virginia, but I just need to understand how much dominance you are going to give reported data in this overall approach. So, I've got three questions. First question- there's probably a history of reported construction data by year by county for 10-12+ years. In CAST, is that going to hold constant or, I think in West Virginia, reduce that?

Peter Claggett: Somebody else would have to propose this, but I'm not proposing that we change what you report as construction. You report what you're going to report, unless you want us to do that. So, whatever you report is going to be in CAST. How we spatially allocate that from the county to the land river segment, the proportions of what goes where, that will be impacted by what we map. As you see here on the decision, if we under map or over map compared to what you report, we have ways of dealing with that as described on the next slide. So, Jess will handle that on her end. So, pretty much this whole presentation is not going to really impact you guys that much, except for Maryland.

Alicia Ritzenthaler (in chat): That's similar in DC too

Bill Keeling (in chat): If VA is reporting at HUC12 why do we need to have that apportioned to finer scale?

Olivia Devereux (in chat): I have seen situations where a poultry house was built, and the area in the permit was the entire farm, not just the portion where the house is located.

Dave Montali: Ok, I just want to understand this, though. Is it true that reported construction for West Virginia always exceeds mapped construction by county?

Peter Claggett: Definitely in Berkeley, and Jefferson it's like four times what we map. For the other counties, it's actually not bad in the sense that we do a pretty good job capturing what is reported. Berkeley and Jefferson are just kind of off the charts.

Dave Montali: I get that, and that probably has to do with timing and all that other stuff. But, this is a difficult thing. If we are generally always reporting more than is mapped, then your approach is going to use up all of what you have mapped plus then take from the developed class?

Peter Claggett: Right. So, we'll spatially allocate it to where we saw construction and where we saw development, because that's likely where your reported construction is at the land river segment scale. Then we'll take it out of whatever you report. It's like 4,000 acres a year practically in Berkeley. So, that'll be spatially allocated, and then those acres will be taken out of the developed sector, but the entire developed sector, so you're unlikely to run out of acres because we're taking from impervious, turf grass, and all that.

Dave Montali: Alright. With respect to the period you don't have reported data, you came up with a factor of two times or something like that, maybe 1.9. So, there are some other nuances like what we report is technically the disturbed portion of a parcel. Now, the 163 acre example you gave kind of looked like at some point in time the whole thing was cleared, but that's not always the case. So, is there a consideration that you need to do to say, ok, looking back, there was a change to developed for this parcel. I think I heard you say we'd take the whole parcel and say that was barren, is there some factor you need to apply to that?

Peter Claggett: If any of the states don't report for those years from 1985 to 2012, we will be using our mapped data to fill those gaps. So, for that period of time, we just had the Landsat. So, Landsat is going to capture X amount of development per year, per county. When we compare that to what we map with our high res, it's not enough. There's actually more land disturbed than just what Landsat captures. So, we'd be inflating that Landsat number by a factor of two. The analysis I did to come up with that 1.95 was comparing our 2021-2022 data to Landsat. Now, we're also going to do comparisons with the 2017/18 and then 2013/14 we'll come up with some average scaling factor by looking at a larger data set. But, it's going to be inflated. We're going to inflate the Landsat numbers regardless, because that's the way it is most likely going to pan out.

Dave Montali: It's a big question mark, but you would think that somehow the ratio of what you map to what we report should be represented back in those years where there are question marks. Are you saying your 1.95 number is intended to do that?

Peter Claggett: It is intended to do that, yeah. Let me back up. The 1.95 number is intended to scale what we observe in Landsat to what we map at high res, not to scale it directly per county to what you report. That would be a separate thing that we would have to do. That's not what is proposed.

Dave Montali: Alright. I'm just thinking of apples to apples over time. With all the imperfections of how we report our permitted data, that was probably still in place back before 2012.

Peter Claggett: Yeah, and that is one thing I promise you all that we will look at the temporal data strung out from '85 to in the future. We don't want to introduce inconsistencies just because there's differences in data availability for three time periods. So, we will take a look at that and see if it warrants some additional adjustments. We'll look at that in the next couple of months.

Auston Smith: I had one point, like a clerical detail, but any other questions or comments for Peter before we move to voting? Peter, can you current me if I'm wrong on this. I think that this is a clerical error on my part. On the agenda, we'd put 10% developed within three to five years, but on your slide here it is 20. The actual figure is 20, right?

Peter Claggett: Yeah.

Auston Smith: Ok, we'll fix our agenda and repost it. I just wanted to clarify that in case folks were confused. Alright, Caroline, go ahead.

Caroline Kleis: Ok, great. I will pull up those charts. So, we'll start with the first decision, and I am just going to go ahead and change this to be 20%. You can put your votes in the chat, or you should all still have microphone access.

Auston Smith: Just a reminder you're voting on how patches of barren land are classified as regulated construction.

Cassie Davis (in chat): 5

Dylan Burgevin (in chat): Maryland votes: 5

Kaylyn Gootman (in chat): EPA: 3

Kevin Du Bois (in chat): Voting for Ashley Kelly- 4

Alicia Ritzenthaler (in chat): 4

Scott Heidel (in chat): PA 4

Matt Kofroth (in chat): 4

Normand Goulet (in chat): 4

Samuel Canfield (in chat): WV 5

Bill Keeling (in chat): VA 3

Auston Smith: Thank you all for voting in the chat. Looking like Caroline will follow up with the same folks but approved while we wait for other votes. I'll go over the second decision. So, again, the second item that Peter was going over was if there is a difference in reported versus mapped construction, where does it go? So, if it exceeds it, it is subtracted from the developed sector, and if it is mapped as more than on the ground, it's reclassified as compacted pervious.

Norm Goulet (in chat): 4

Alicia Ritzenthaler (in chat): 4

Dylan Burgevin (in chat): Maryland Votes: 5

Kaylyn Gootman (in chat): EPA: 3

Scott Heidel (in chat): PA 4

Cassie Davis (in chat): 5

Bill Keeling (in chat): VA 3

Kevin Du Bois (in chat): Voting for Ashley Kelly- 3

Matt Kofroth (in chat): 4

Samuel Canfield (in chat): WV 4

Auston Smith: Thank you for your votes. I think the outcome is the same here. We will do a couple of follow-ups, but tentatively approved for now.

Samuel Canfield: This was a last-minute question. Was there other jurisdictional data provided, Peter?

Peter Claggett: I did get some. What I really need is point data. So, I did start looking at some of the point data for Virginia, but it may not be the exact point data that Bill uses to report. But, I saw some kind of similar issues to what we were looking at in West Virginia with that, and I know that Delaware has some data. I haven't looked at that directly yet for comparison.

Samuel Canfield: Awesome. I just wondered how it compared. Dave mentioned question marks with Berkeley and Jefferson in particular. One would, in part, expect all the counties to have a similar issue, because most construction activities do report that total acreage of the site rather than the individual parts as we've been discussing. But, the disproportionate amount of activity happening in Berkeley and Jefferson compared to the other six counties of West Virginia may be conflating that in part in my mind. That's neither here nor there right now, but just a thought on that.

Peter Claggett: Right. A lot of the differences also depend on the physiography and whether it's like rugged terrain or flat terrain and how developers in particular decide to proceed with a particular project. There are some in Delaware that I'm personally familiar with where there's an entire site with dirt and then they built it all up over a year, but the entire site was cleared in West Virginia. From what I've been looking at, that tends to be more of the exception than the rule, and the development tends to be much more phased in sections, and it might be that the land is less prone to erosion in Delaware because it's flat and so people are more protective of runoff and stuff in the hill country. I'm not exactly sure why, but there are some physiographic differences by jurisdiction that may impact how the permitted data relates to what we map.

Auston Smith: Thank you, Peter. Thank you all for your votes. Again, we'll do a follow up, but tentatively approved.

Samuel Canfield (in chat): I agree with that phasing thought!

Decision: The WTWG approved the following decisions related to construction acres in Phase 7:

- a. **Mapping Construction:** All patches of barren land uses (except "extractive barren") that became at least 20% developed within 3-5 years represent "Regulated Construction". Scaled NLCD annual change in development will be used to map historic construction and the CBLCM will be used to estimate future construction.
***Post Meeting Note:** This decision was updated in October 2025 to remove ""bare shore" and" from the parentheses.
- b. **Reconciling Mapped and Reported Construction:** Construction acres reported at the county scale will be allocated to LRSEGs by the relative amount of a county's mapped construction within each LRSEG.
 - i. If reported construction exceeds mapped construction in an LRSEG, remaining reported construction acres will be subtracted from the developed sector (proportionally by developed class).

- ii. If reported construction is less than mapped construction, remaining mapped construction will be reclassified as “compacted pervious” (loading like “mixed open” in Phase 6).

11:05 Approval of Proposed Methodology for Buffer Upland Credit in Phase 7- Bill Keeling, VADEQ (10 min.)

Over the last few months, Bill Keeling, VA DEQ, has been presenting on a proposed change to the methodology for buffer upland credit in Phase 7 at the AgWG and WTWG. The proposal is to distribute upland benefit from non-exclusion buffers proportionally to the load sources it is applied to and to stop providing upland credit to non-exclusion buffers from pasture. Given that the AgWG did not have substantial concerns with the proposed change, Bill returned to the WTWG and requested formal approval of the change to the methodology.

Discussion:

Auston Smith: Thanks, Bill. Any other need for refreshers, questions, or comments? If so, Bill can go over the Ag Workgroup presentation. But, if I don't hear anything, maybe we can move immediately to a vote if members are feeling like they're already updated on this topic. Not seeing any hands or questions in the chat. Caroline, thanks for going ahead and pulling up the voting tracker. So, same as last time, thanks for your votes in the chat or verbal. Let us know if you do have any final questions or comments, thoughts for Bill. This has gone through a back and forth review. So, really appreciate you carrying this torch for so long, Bill.

Dylan Burgevin (in chat): Maryland: 5

Bill Keeling (in chat): VA 5

Kevin Du Bois (in chat): Voting for Ashley Kelly- 3

Norm Goulet (in chat): Stand aside

Kaylyn Gootman (in chat): EPA: 3

Alicia Ritzenthaler (in chat): 3

Cassie Davis (in chat): 5

Scott Heidel (in chat): 4

Matt Kofroth (in chat): 4

Samuel Canfield (in chat): WV 5

Auston Smith: Thank you, everyone. We'll do the same follow up, but generally tentatively approved. Thank you so much, Bill.

Elizabeth Hoffman (in chat): Thanks for your work with this, Bill!

Decision: The WTWG approved the following change to the methodology for buffer upland credit for Phase 7: distribute upland benefit from non-exclusion buffers proportionally to the load sources it is applied to and to stop providing upland credit to non-exclusion buffers from pasture.

11:15 Cover Crop Excess Model Process Update— Jess Rigelman, J7 Consulting/CBPO (30 min.)

Following requests from partners to evaluate excess on cover crops and possible redistribution, Jess Rigelman, J7 Consulting/CBPO, presented on a proposed methodology for handling cover crop excess in Phase 7.

Discussion:

Bill Keeling: Earlier, Jess, you sent that this pretty much fixed the issue for Maryland, but Virginia still had some excess even though you tried this new distribution method. What I was proposing initially was if there is leftover that we redistribute any excess. In other words, if we do this and there's still excess, is there an option to redistribute?

Jess Rigelman: I don't really know how to redistribute because, in those cases, there aren't acres of cropland and these acres left.

Bill Keeling: Right, but you are doing this at a county scale?

Jess Rigelman: All BMPs are submitted at whatever scale they are, and then they are proportioned down to LRSEG, and then it is determined how much gets credited. All of these BMPs are reported at various scales whether it be state, county, HUC 12. In general, there's about 40 different geographies in CAST. I realize not everybody uses all of them, and I realize that only a few of them are available for progress. But, this is a process for all BMPs. So, they could be at state basin.

Bill Keeling: The big issue in Virginia is that what we're reporting at HUC 12, that is getting 100% verified. So, my proposal was if it's reported at a HUC 12 and there's not enough land, that you go up to the HUC 10 that HUC 12 is a part of. Then if that's not sufficient, to the HUC 8. That way it stays hydrologically connected to the original reporting. That was my proposal.

Jess Rigelman: Sure. But, in general, we're talking about CAST, not a progress scenario. I say that because we can run a scenario on a land river segment or, if I upgrade it to a HUC 12 and I'm only running a scenario for a county, then we're still going to take the stuff within that county for that. Or, we put it in the HUC 12, and then it's going to end up outside of your scenario. So, you're not really going to get credit for it anyway. So, I'm trying to balance here between the fact that I realize we're talking about progress and 100% verification, but the process needs to work for all scenarios. This gets very messy when we talk about the fact that there are, like I said, 40 different geographies in CAST, and I don't know what to roll it up to in every situation and the fact that scenarios can be wrong at as small as the land river segment scale. I will also say that HUC 12's don't work very well in Phase 6, because they don't match up with our land river segments. I can't promise this, but I'm hoping a lot of these issues will be solved and at least minimized in Phase 7 once land river segments are tied to HUC 12's. So, I guess what I am saying is we can talk through that methodology if you want further, Bill, and we can try it out. But, I have given a lot of thought to this, but I'm more than willing to give it another shot.

Bill Keeling: Well, you're not asking for a vote today, right? This is just brand new being dumped on us. Is that right?

Jess Rigelman: Also, it's been discussed, and I'm not sure you were part of that discussion, but somebody from Virginia did write and ask if you could submit your cover crops at the HUC 10 scale in general. So, that is always something that is available and can be discussed as part of the

verification process and put in your QAPP if you wanted to submit your cover crops and commodity cover crops at the county or HUC 10 or HUC 8 scale.

Auston Smith: Yeah, it might have been Hunter who has that. Thanks so much for your questions, Bill. Dave, I see a hand.

Dave Montali: I've talked with Jess about this. This doesn't work for West Virginia although, just like Virginia, this is a cost shared program we have. We know exactly where they are, and they've been verified to the nth degree. But, it's a perpetual problem in a county or two because, for whatever reasons, the farmers don't report the SGG. It's complicated, but it's Ag Census related. There's not enough SGG or double cropped land in those counties to accommodate, whether you credit traditional first or not. This has been recognized for a long time, and the Band-Aid proposed to us was simply to back out and report these practices inaccurately, but at the West Virginia Potomac scale. That way we get the credit. Question #1: Is that ok to continue? #2: A better approach to me would seem to be to allow the practice to go on a broader group of land uses, but I understand the Expert Panel says no to that. It can only go on double cropped and small grain. So, I guess what we are doing is what you want, Bill. Maybe a little bit broader, but we were told to pursue that approach, and I guess at least we get credit for the practices we are cost sharing.

Auston Smith: I can respond to that first portion really quickly. Dave, I think that for future progress years, the approach that West Virginia has taken is good to go.

Bill Keeling: Part of the issue is our grant guidance says report at the finest scale we have. So, if the data is at HUC 12, without some flexibility, I am kind of stuck with trying to comply with grant guidance. So, I believe EPA needs to, in terms of the whole excess issue, allow some flexibility on reporting. In that case, we could explore reporting at different scales. But, I agree. I think the issue really revolves around this concept that the commodity is only eligible on two flavors of cropland. I don't believe the Expert Panel understood at the time what that meant. So, I'm not opposed to asking the AMT to look at that specific item and ask for some relief. The fact is we are 100% verified on what we're reporting at HUC 12, and it is on some form of cropland. It just shows year after year the algorithm used to define acreage from the Ag Census is chronically wrong. So, something has to give some way.

Auston Smith: I can respond to the first part of that. Bill, I know we had a brief email exchange on how this reporting might go. I'd love to hear more from you offline on maybe what the proposed alternation might be so we can work on that specific for Virginia. I don't know if I saw Tom online for the AMT part.

Bill Keeling: I'm just saying it's similar to the excess in animal waste because we have HUC 12, and that's all being processed at a county scale period because manures are dealt with that way in the model. So, flexibility on certain BMPs where we have high levels of verification needs to be a concept in the guidance that it's not so hard and fast that you shall report at the smallest scale available.

Jess Rigelman: I have a couple of comments here. I haven't done all the math and all the programming yet, but in most cases where there is excess, there really isn't enough cropland based on our current method. Even if cropland were available to small grains and grains to accommodate it, there would still be excess. So, I'm not saying we can't go that route, but

obviously that is a more arduous route being we have to go through various workgroups and undo the decisions of an Expert Panel. I have my doubts as to whether that will actually solve the problem. But, again, that's up to this workgroup to decide if they want to move forward on that. As far as reporting at a large scale, I guess EPA and Auston can speak to that, but we have made exceptions for states in the past and, if grant guidance needs to be changed, I guess that can be looked into. In general, it's just a general request to the Bay Program verification team and, as long as it's documented in your QAPP, those are usually approved.

Auston Smith: Thank you, Jess. I echo that second half of the statement.

Bill Keeling: I'll just reiterate that maybe we don't need to go to the AMT, but we need to talk to how the land use is derived and look at those algorithms, because obviously something is chronically wrong there, or at least there's a big discrepancy between the algorithm derived land use acreage and what we are actually seeing. These are real crops on real cropland and we are, year after year, not having cropland evidently properly characterized.

Dave Montali: For what it's worth, I asked the Department of Ag local people why the Ag Census doesn't have the small grain grain that's produced and was told that farmers, for the most part, where they use the commodity cover crops, not to sell the grain itself, they don't have the equipment to go that route, but they use what they harvest to feed cattle, and they just don't conceptually think that they are producing a small grain crop. So, that's the inherent problem. I don't know if you said cropland would be ok to apply this on, I think that would solve our limited problem, I don't know what it would do for other states or other areas but, conceptually, we don't have the problem where the grains are sold. There is an adequate amount of SGG and double cropped land. It's only in the areas where what they harvest from the commodity cover crops is used to feed the cows. So, they have the corn. They do the commodity cover crop, but then they don't report that SGG in the Ag Census.

Auston Smith: Because of how they were using it. Ok.

Bill Keeling: That goes to prove that this isn't just small grain, it's also silage, so it should be eligible on other land uses.

Elizabeth Hoffman (in chat): Clarifying question for Jess -- If they are getting credit for all the CCC acres first, isn't the "excess" that remains then the traditional CC acres that have been verified differently? Just trying to understand.

Auston Smith: I think a portion of this conversation Jess and I will need to talk to Tom about, but I do just want to flag the question Elizabeth put in the chat. Jess, is that understanding correct? I think that in the current method bubble here, it would be 50 acres of cover crop that would be the excess, not commodity, in this example, right?

Jess Rigelman: No, it's going to be commodity cover crop. I guess I'm not really understanding Elizabeth's question, and this is just me. I think of verification as a human process, and you verified it. Therefore, you've reported it and then verification, as far as what EPA does at the end of progress, this is just a CAST algorithm for crediting, and it's neutral to verification because we don't take that into account. We talk about this in the context of progress, but this has nothing to do with progress BMPs. This is just how CAST processes BMPs, and verification is a part of a progress scenario. It's a people process, not an algorithm. Or am I misunderstanding your question?

Elizabeth Hoffman: I guess what I was saying is I thought that the changing of the order of operations, what it did was it put commodity first and then it stacked any traditional cover crop to fill the full extent of cropland. So, I guess my point is, if there's excess even then, isn't that going to usually be traditional cover crop acres for a state?

Jess Rigelman: It will be the traditional cover crops, but we have to do the one that's in the smaller group first. Otherwise, if we do the bigger one, we're going to end up with the same situation as the current method.

Elizabeth Hoffman: I understand that. I guess my point is for states where they feel like commodity cover crop acres are, in their words not mine, the "most verified", those should be credited in the model. Those are not the ones seeing the excess. The traditional cover crop acres, which are verified through a different mechanism, are the ones that are seeing excess. I guess that's all I am trying to clarify. Am I understanding that correctly?

Jess Rigelman: Yes, with the new proposed methodology, that would be the case.

Bill Keeling: Except in Virginia there's no difference. All cover crops are verified three times- commodity and traditional, at least those done in the VACS, not USDA data.

Elizabeth Hoffman (in chat): Got it. Just wasn't sure if this was a case of different sources and one having less confidence.

Auston Smith: Thank you, Bill. Do we have other questions or comments for Jess? I'm encouraged by the conversation, but maybe we should plan to have you come back in September to maybe expand. Are there any stops or holds or serious concerns on this proposal? Or is it largely a request for better understanding? If there's not heartburn, I know it wasn't on the agenda, but I'm comfortable kind of making a move with the members here saying we can take this to a vote if everyone's comfortable, but I am not trying to force that. So, I'm just trying to gather some feedback here. This is all just in an effort to use our time efficiently.

Dylan Burgevin (in chat): Maryland is comfortable voting

Kevin Du Bois (in chat): I'm ready to vote.

Jess Rigelman (in chat): I am not here in September

Auston Smith: Thank you, Jess, for that reminder. It would need to be October then.

Jess Rigelman: It actually would still need to be September because all decisions need to be made by September 30th for Phase 7 of the model. I'm just saying I won't be here to present on it, but I can do the work before.

Auston Smith: Thank you. I will present in September.

Jess Rigelman: But, again, if it is changing small commodity cover crops, it would need to go through various channels before we'd even come to the Watershed Technical Workgroup because that's a change in the Expert Panel. So, I'm not discouraging anyone, I'm just saying that there are hurdles.

Bill Keeling: Well, I will put it this way. This appears to be an improvement over the status quo. So, I guess I would be a 4.

Scott Heidel (in chat): PA would be a 3 since it is moving in the right direction, but we really need to be moving toward remote sensing.

Elizabeth Hoffman (in chat): Could we support this improvement here and still explore next steps? Same thinking as Bill, from MDA.

Auston Smith: I'm seeing a similar sentiment from PA in the chat. This is the right direction, but more improvement will be needed and from Elizabeth as well. So, I'm starting to see some movement that folks are comfortable with making a vote right now. Please speak up or say so in the chat if you are not comfortable doing that. Otherwise, Caroline, thanks for pulling up the voting sheet. Hearing no signs of heartburn, would love to hear folks' feelings and votes on this proposed methodology. Thanks everyone for being flexible. We're just trying to keep the agenda a little open to accommodate for pressed time.

Kevin Du Bois (in chat): Voting for Ashley Kelly- 3

Bill Keeling (in chat): VA 4

Matt Kofroth (in chat): 3

Kaylyn Gootman (in chat): 3

Norm Goulet (in chat): 3

Samuel Canfield (in chat): 4

Dylan Burgevin (in chat): MD: 4

Cassie Davis (in chat): 4

Alicia Ritzenthaler (in chat): 4

Auston Smith: I think we've reached capacity for the voting members on the call. Jess, thank you so much for walking the group through this proposal, and we will follow up with the outstanding voting members. But, again, 5th tentative approval.

Decision: The WTWG approved the proposed methodology for handling cover crop excess in Phase 7: 1) Credit commodity cover crops first, since it is a limited area 2) Credit traditional cover crops and traditional with fall nutrients cover crops second (taking the acres already occupied by commodity cover crops into account).

11:45 **Review of the Draft 2025 NEIEN Appendix** – Jess Rigelman, J7 Consulting/CBPO (10 min.)

Jess Rigelman, J7 Consulting/CBPO, reviewed the draft 2025 NEIEN Appendix with the group. Time was made for partners to ask any questions and provide feedback. Final feedback will be solicited by email, prior to August 25, 2025. Feedback is due by August 25th, to allow for one week to finalize this product internally and integrate it into CAST.

Discussion:

Caroline Kleis (in chat): Draft appendix is available for download on today's meeting page: <https://www.chesapeakebay.net/what/event/watershed-technical-workgroup-meeting-august-2025>

Kevin Du Bois (in chat): Jessica, not for this year, but maybe next. DoD has just authorized the use of nutrient credit purchases.

Jess Rigelman (in chat): Please reach out to Auston and we can set up a meeting to discuss what this means for reporting in future years.

Dylan Burgevin (in chat): We will review and let you know if we have any additional comments after the meeting.

Action: Please provide any comments or feedback on the draft NEIEN appendix to Jess Rigelman (jrigelman@j7llc.com) by September 1st.

11:55 **Recap of Actions and Decisions** (5 min.)

12:00 **Adjourn**

Next Meeting: Thursday, September 4th, 10:00 AM – 12:00 PM.

Participants

Auston Smith, EPA	Robbie Coville, PA DCNR
Caroline Kleis, CRC	Sabine Miller, MDE
Petra Baldwin, CRC	Eugenia Hart, Tetra Tech
Bill Keeling, VA DEQ	Helen Golimowski, Devereux Consulting/CBPO
Dave Montali, Tetra Tech	Norm Goulet, NVRC
Emily Dekar, USC	Katie Brownson, USFS
Arianna Johns, VA DEQ	Alicia Ritzenthaler, DOEE
Megan Thyng, EPA	Elizabeth Hoffman, MDA
Elaine Webb, DNREC	Peter Claggett, USGS
George Doumit, DNREC	Kaylyn Gootman, EPA
Jess Rigelman, J7 LLC/CBPO	Matt Kofroth, LCCD
Bailey Robertory, MD DNR	Scott Heidel, PA DEP
Eric Hughes, EPA	Ruth Cassilly
Samuel Canfield, WV DEP	Ashley Hullinger, PA DEP
Cassie Davis, NYSDCE	Jackie Pickford, USGS
Kevin Du Bois, DoD	Joseph Schell, DNREC
Olivia Devereux, Devereux Consulting/CBPO	Jeremy Hanson, CRC

Acronym List

AgWG: Agriculture Workgroup
CBPO: Chesapeake Bay Program Office
EPA: Environmental Protection Agency
EPEG: Expert Panel Establishment Group
NEIEN: National Environmental Information Exchange Network
QAPP: Quality Assurance Project Plan
USFS: United States Forest Service
USGS: United States Geological Survey
VADEQ: Virginia Department of Environmental Quality
WTWG: Watershed Technical Workgroup
WQGIT: Water Quality Goal Implementation Team