

Agriculture Workgroup (AgWG)

Meeting Minutes

August 21st, 2025

10:00 AM – 12:15 PM

Meeting Materials

Summary of Actions & Decisions

Decision: The AgWG approved the [minutes](#) from the July AgWG meeting.

Action: Caroline Kleis, AgWG Staffer, will post the updated long-term actions and decisions log on the AgWG homepage, capturing actions and decisions from 2010 onward. If there are additional ways that this document can be formatted or updated to make it most useful, please contact Caroline Kleis (Kleis.Caroline@epa.gov).

Action: AgWG staff will also work towards creating a historical projects document that highlights key projects of the AgWG throughout time. If there are any specific efforts you would like to see captured in the historical projects document and/or if you have feedback on additional documentation that would be helpful to you, please contact Caroline Kleis (Kleis.Caroline@epa.gov) and Eric Hughes (Hughes.Eric@epa.gov).

Action: Members present on the call voted to approve the recommendations in the Agroforestry EPEG report. Caroline Kleis, AgWG Staffer, will follow up with members not present to confirm consensus.

Post Meeting Decision: “The AgWG approves as proposed the recommendations specified in the Agroforestry EPEG Report.”

Action: Eric Hughes, EPA, and Olivia Devereux, Devereux Consulting/CBPO, will work to develop a user-friendly BMP crosswalk document. Olivia will return to a subsequent AgWG meeting to discuss the updated document.

Action: Please provide any additional feedback on the potential format and content of the updated BMP crosswalk to Eric Hughes (Hughes.Eric@epa.gov) and Caroline Kleis (Kleis.Caroline@epa.gov) and reach out if you or the organization you represent have priority practices to credit or reevaluate.

Action: Jeff Hill and Eric Hughes will discuss next steps for bringing water quality monitoring topics to the workgroup. Any members interested in continuing discussions offline or potentially forming a small group focused on water quality monitoring should reach out to Eric Hughes (Hughes.Eric@epa.gov).

Intro & Announcements

10:00 Overview of Updated Meeting Security Practices – 5 minutes

Eric Hughes, AgWG Coordinator

The Chesapeake Bay Program Office is strengthening its meeting security protocols in response to recent instances of malicious actors disrupting public video conference calls. We ask that meeting attendees please remain patient as staff implement the following changes:

- Meeting links will no longer be available in the "location" field on the website calendar pages; please refer to agendas and outlook calendar invitations for meeting information.

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- Meeting participants will now join with their cameras and microphones off.
 - If you wish to speak, please raise your hand, and Caroline will give you microphone access. You will then be able to mute/unmute as you normally would for the rest of the call, so please continue to be mindful of your microphone.
- Presenters/WG Leadership will be given normal microphone, camera, and screenshare access for the duration of the call.
- We will collect votes via chat for decisional items where we need to go member by member, and anyone who wishes to ask questions or register a comment should use the raise hand feature.
- If an intentionally disruptive participant joins the call, we will do our best to remove the individual as quickly as possible and lock or end the meeting. Caroline will then share a new meeting link with those on the distribution list.

10:05 Welcome, roll call, review meeting minutes – 5 minutes

Kathy Brasier, AgWG Chair

- Roll call of the governance body and meeting participants - *Please enter name and affiliation under "Participants" or in "Chat" box*
- **Decision:** The AgWG approved the [minutes](#) from the July AgWG meeting.

AgWG Planning & Documentation

10:10 Overview of Updated AgWG Actions and Decisions Log – 15 minutes (presentation and discussion)

Caroline Kleis, AgWG Staffer

The AgWG has maintained a tracking document for the group's official actions and decisions since January of 2022. The group's actions and decisions prior to 2022 are captured in meeting minutes and other materials posted on individual meeting webpages, but this means that they aren't easy to reference. To enhance AgWG transparency and allow members and interested parties to more easily see what the workgroup has done over time, Caroline has spearheaded an effort to update the tracking log with actions and decisions from *every* AgWG meeting since 2010. Our record of actions and decisions will now span approximately 15 years. Caroline shared her work with the group and solicited feedback on possible next steps to be taken.

Discussion:

Dave Graybill (in chat): Will it be searchable by the presenters? If you are looking for items by specific persons

Caroline Kleis: That's a good question. It does not list specific people. If that's something that others are interested in, we could consider doing that. But, as of right now, it just lists the specific actions and decisions as they were recorded.

Jeremy Hanson (in chat): Not every time, but a lot of the time, there are actions to "reach out to [speaker name]" with questions or feedback, so it would be helpful as a way to CTRL + F and search for a speaker name.

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Eric Hughes: Good question, Dave. That's really what I think we wanted to get at here: is the information as it's presented in the document useful to members? I would assume the answer is yes, and we might want to consider adding some additional things here to help further. For example, there's discussion about potentially changing the agenda format, making sure that all of the Bay Program groups are using an agenda that generally looks the same. If you are familiar with the Management Board's format for agendas, I think shifting to something like that. So, when we're listing actions and decisions, something that might be helpful for tracking purposes is to have the agenda item how it's listed on the agenda and then, underneath, have the specific action or decision that was made. Think about it a little bit and let us know what you think. As it said on previous slides, always just trying to continuously improve. So, we'll welcome any feedback at any point.

Kathy Brasier: I will just pause for a second and give everyone a chance to raise their hand before they move on. I just wanted to say my thanks. This is incredibly helpful, and part of this happened because of the planning process. We were trying to track things down and look historically, and realized that it was quite difficult. So, I really thank you for jumping in and providing that leadership.

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Action: AgWG staff will also work towards creating a historical projects document that highlights key projects of the AgWG throughout time. If there are any specific efforts you would like to see captured in the historical projects document and/or if you have feedback on additional documentation that would be helpful to you, please contact Caroline Kleis (Kleis.Caroline@epa.gov) and Eric Hughes (Hughes.Eric@epa.gov).

Accounting & Reporting

10:25 Review of Agroforestry EPEG Report Recommendations – 30 minutes (presentation, discussion, and vote)

Eric Hughes, AgWG Coordinator; Katie Brownson, Forestry Workgroup Coordinator (USFS)

Eric provided an overview of the recommendations in the [Agroforestry EPEG Report](#) on the crediting of alley cropping and silvopasture for Phase 7 of the watershed model, and consensus approval was sought from the AgWG on these recommendations. The recommendations have been approved by the Forestry Workgroup and Watershed Technical Workgroup (conditional on AgWG approval) and, since approved by the AgWG, will be elevated to the WQGIT for final consideration.

Discussion:

Amanda Barber (in chat): What impact does or will silvopasture by subtraction have on landuse, pasture acreage reporting, etc.

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Katie Brownson (in chat): We aren't going to track/credit silvopasture by subtraction as a Chesapeake Bay BMP. Depending on how much of the forest gets thinned out, the entire area may still be getting picked up as forest in the land use, or it could be picking up a combination of forest and pasture (or potentially other low veg land uses due to challenges distinguishing between those low veg classes)

Katie Brownson: One question in the chat was about the impact that silvopasture by subtraction will have on land use, pasture acreage reporting, etc, and I clarified that we're not going to be tracking that as a BMP and kind of how it gets picked up in the imagery is going to depend on the specifics of how heavily they're thinning the forest and how accurately the land use is mapping it. So, it could be kind of still appearing as a forest if it's like a lighter thing, or it might be a combination of the trees getting mapped as forest and the pasture mapped as pasture. Or, sometimes, we're seeing that they're also getting picked up as harvested forest in the land use. So, it's a smattering, but we're not proposing to credit that practice. So, it'll just get captured in the land use.

Amanda Barber: I was just making a point more that I was concerned about the impact that it would have on just adding more discrepancy between the land use as we see it and the land use as farmers report it. So, it's really outside of the discussion about the crediting of what you're proposing here. Just a side note.

Katie Brownson: Yeah, and it is a much bigger issue than, as you say, than this particular crediting effort. Like the fact that we aren't actually able to map these accurately in the land use is an issue. So, I think that's something as part of the goal of re-evaluating this within the next 10 years is to see if we can better credit these practices and kind of address this bigger issue of incorrect mapping of ag areas.

Hunter Landis: Eric, could you go back a slide or two or three to your silvopasture reduction percentages? What is the reduction comparison to? Is silvopasture being compared to pasture or forestry? IF there's an efficiency reduction, what's that comparison to? Does that make sense?

Eric Hughes: So, you have pasture land use where silvopasture is applied. 100% of that acreage would previously be loading at the pasture land use loading rate. If you apply silvopasture, 25% of that acreage would begin loading as the forested land use load. So, it would be compared to not having any of that forested land use loading rate applied.

Elizabeth Hoffman (in chat): Part of the EPEG discussion was around capturing that "middle" land use, between the model's "true forest" and "pasture", and a need to explore that further in the future. In terms of farmers reporting on the land use, jurisdictional leads would help navigate that as well, through how we report those BMPs.

Katie Brownson (in chat): The silvopasture as subtraction areas may also get picked up as harvested forest

Jim Riddell (in chat): Would you repeat-why the 10-year credit duration was used?

Ruth Cassilly (in chat): @Jim- 10-year credit duration corresponds with 10-year credit duration for rotational grazing, which a requirement for the silvopasture BMP, and also allows for re-evaluation of land-use mapping capabilities and currently ongoing studies for silvopasture and alleycropping effects

Ken Staver (in chat): Helpful to see forest loading rate

Katie Brownson: I don't know if this was your question, Hunter, but the efficiencies on the top there, the percentages, that's a reduction from the pasture land use load, and that's what you get

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when you kind of do that sort of conversion of 25% of the land to forest because the forest has a lower loading rate.

Hunter Landis: That's the answer to the question I was trying to ask. Thank you. Maybe a separate question is if forestland is completely harvested and the potentially transitioned to a silvopasture, does that fall into that by subtraction category?

Eric Hughes: That's a really interesting question. That specific case, Katie, I don't know if that came up in our discussions. Silvopasture by subtraction was certainly something that was discussed extensively by the group. I don't know that that case in particular came up.

Katie Brownson: I think, in order for it to get credited, it would have to go from being a forest to being harvested, being fully converted to a pasture, and then have the trees added back on. So, maybe there is some kind of back door way that silvopasture by addition could be credited, even though there used to be a forest in that area. But, it would have to kind of line up in time in order for us to meet the crediting requirements that it has to be starting with pasture and what it was before pasture, we're not really able to account for in our tracking.

Elizabeth Hoffman (in chat): Can you repeat the case Hunter asked about?

Eric Hughes: So, Elizabeth, if you have a forest that is 10 acres completely forested, then it becomes converted to pasture, and then you put trees back on it. Is that silvopasture by addition or silvopasture by subtraction? It was, at one point, forest that was taken out of forest, turned into pasture, and then you put silvopasture on.

Clint Gill (in chat): I mean technically, it was all forest at some point...

Elizabeth Hoffman: I think the whole idea why silvopasture by subtraction was not considered is because of the land use to apply the BMP against. So, if we are thinking about this as what was the limiting factor, I'd have to give it a little more thought than I can do right now on the spot, but part of it was also about the footprint of animals. I'm not going to give you a good coherent thought in the moment, but I guess I would say the land use part and then the ability to report the BMP are very different. Let me think about it.

Katie Brownson: Clint made a really good point in the chat that a lot of our land used to be forest anyways, then it became pasture. So, maybe there is a little gray area if someone goes through and completely clears out the forest, converts it to a pasture, and immediately replants it to get the silvopasture by addition credit. But, I don't think that's probably going to be a very common case. If they wanted to go from a silvopasture system, they would likely just thin out the trees and go directly to that silvopasture system, and that would not be a creditable practice. But, we're not going to be able to look back in time to be like, well, that as a forest five years ago and now they're trying to get silvopasture credit. So, I think it'll just be if it's a pasture and then you're adding trees to it, then you can get credit. But, we're not really going to be looking back in time before that.

Jenna Schueler (in chat): I know it says reductions are separate from precision intensive/rotational grazing. So do these practices stack?

Ruth Cassilly (in chat): Yes, they stack

Amanda Barber (in chat): There shouldn't be a gain or improvement if we are converting forest to pasture, even if it's then converted to silvopasture.

Amanda Barber (in chat): It would be better just left as forest...

Ken Staver: It just seems like, from a logic standpoint, if you are going to go by subtraction, you start with forest land use and 75% of it gets converted to pasture. If you want to have the

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practice identified as a land use, and that's what it actually is, then that seems to me to be the logically consistent way to handle it. But, you're going to get an increase in load going from forest to silvopasture or agroforestry, but that is sort of the reality, I think. If we believe it the other way, we should believe it in the reverse, too, I guess is all I am saying.

Katie Brownson: That will be captured in the modeling. What we're just saying is we're not going to give you an additional water quality reduction credit for doing it that way, because you are going from a more forested land use to a more pastured land use, and the crediting will align with that based on what is coming up in the imagery.

Ken Staver: That direction doesn't get you anything.

Katie Brownson: Right, exactly. So, that's not going to be a BMP, but it is something that you can do, and NRCS does help support those practices. There can be cases where, if it is a degraded forest, it could be offering some benefits, but just from a Chesapeake Bay Program water quality BMP perspective, we don't have any sort of mechanism to credit that for water quality benefits.

Eric Hughes: Looking through the chat, Jenna had a question. Jenna, does that sufficiently address your question there?

Jenna Schueler: Yes, absolutely. I just wanted to make sure we were still getting benefit from the soil and the impact of the trees, but it sounds like we are.

Jim Riddell (in chat): if the grazing exclusion credit duration was increased--this would likely increase also?

Katie Brownson: I think that's something we could look at, if the grazing exclusion credit duration was increased. I guess we didn't have any indication that it was going to be increased, but I think that could be a flag for us to revisit the credit duration if that kind of base grazing credit duration was increased. We don't need a whole new model phase to be able to extend credit durations. We can do that in the interim model updates. So, that's a good flag if that's something on the table for us to kind of track.

Elizabeth Hoffman (in chat): The land use conversion "credit" for the BMP was challenging because we don't have a "middle" land use yet to place it in. If it goes to true forest, we then can't have animals grazing -- in the model.

Elizabeth Hoffman (in chat): Same for if it always has been in "true forest" then the model assumes animals aren't present (vs. pasture) and we can't report prescribed grazing.

Amanda Barber (in chat): That may be a dangerous assumption on my part - is forest better than silvopasture with other stacked bmps?

Katie Brownson: Forest loads are better than the pasture stacked with the BMPs.

Eric Hughes: Any more questions or comments? If I don't see hands and nothing else comes through the chat, we can shift back to my coordinator updates, and we can go down to the decision. Caroline, do you want to go to a view of the vote tracker for this?

Christi Hicks (in chat): NRCS: 5 in support

Jim Riddell (in chat): 5 Endorse.

Greg Albrecht (in chat): NYS:5

Dave Graybill (in chat): 5, Dave Graybill

Brian Fox (in chat): Brian Fox, DOEE: 5 in support

RO Britt (in chat): 5

Ken Staver (in chat): 4

Cindy Shreve (in chat): WV 5

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Seth Mullins (in chat): 5

Elizabeth Hoffman (in chat): Maryland is a 5, in support.

Matt Royer (in chat): 5 from Matt Royer Penn State

Tom Butler (in chat): 3 EPA

Marel King (in chat): 5 CBC

Jeff Hill (in chat): 5

Nick Hepfl (in chat): Nick Hepfl - HRG - (5) Endorse - Silvopasture in PA is increasing, and this will benefit long term goals in meeting reductions.

Clint Gill (in chat): I'm a 4 only because this is not my area, but I'll defer to the experts

Jenna Schueler (in chat): Jenna Schueler, 5

Paul Bredwell (in chat): Paul Bredwell- 4

Emily Dekar (in chat): Emily Dekar-5

Clint Gill (in chat): I can change to a 5 if that helps

Katie Brownson (in chat): Thanks everyone for the great discussion and support!

Caroline Kleis: Looks like we are missing votes from Pennsylvania and Zach, unless I missed any, Eric.

Eric Hughes: No, I think you got it. I didn't see Zach on, and I don't think I saw Brady as an alternate here. So, looks like we will need to follow up with Pennsylvania. So, because of the tight timeline on this, we will give folks until next Thursday to register their vote. If we do not hear back from them by next Thursday, they will automatically be logged as a three with the note that they did not participate in the vote. This will be relayed to the Water Quality GIT, and then it will be their prerogative to determine whether or not they want to move forward with a vote on this despite, presumably, not having all the votes recorded yet. But, I think with the strong showing of fives here, which we really appreciate from the group, maybe they'll consider taking a vote on it anyway. So, thank you all very much. This was great to see the year long effort result in this, and really appreciate all the members of the EPEG and the various groups.

Clint Gill (in chat): I can change to a 5 if that helps

Eric Hughes: I will not argue with a 5, Clint. Fantastic. We will keep folks posted. This will come back as an update at some point to let you all know whether or not this was approved by the Water Quality GIT, but I assume it likely will go into Phase 7, and you all can start tracking. Thank you very much.

Kate Bresaw (in chat): Sorry I'm late to the party - PA Votes 4 for the Silvopasture vote.

Action: Members present on the call voted to approve the recommendations in the Agroforestry EPEG report. Caroline Kleis, AgWG Staffer, will follow up with members not present to confirm consensus.

Post Meeting Decision: "The AgWG approves as proposed the recommendations specified in the Agroforestry EPEG Report."

10:55 **Crediting New and Revisiting Existing BMPs – 20 minutes (presentation and discussion)**

Eric Hughes, AgWG Coordinator

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In an attempt to build on momentum generated by the Agroforestry EPEG, workgroup members will be asked to provide feedback on 1) other novel BMPs to be considered for credit in the Bay Program's modeling tools and 2) BMPs that are currently credited but should be updated.

Discussion:

Eric Hughes (in chat): <https://cast.chesapeakebay.net/Documentation/BMPs>

Eric Hughes: Olivia, I will call on you. I know you have this BMP crosswalk resource. Thoughts on improving it or maybe enhancing that for the use of the Ag Workgroup and others?

Olivia Devereux: I'd like to take a minute to explain what the history of this resource is and then tell you all what I think might be more helpful. So, because I am a contractor to USGS, and I work on getting all the NRCS data and removing all the PII's, so that states can use that as a reference or to submit directly, whichever they want to do, I've worked on this crosswalk over the years. It originally started off just being the NRCS practice code, a list of all the NRCS practices that are implemented in the Chesapeake Bay Watershed. The NEIEN name, and I use the term NEIEN, but we are moving away from NEIEN as an application, but nothing will really change for the states. They can still submit the schema but to CAST directly. Then there's a post processing step that the Bay Program does that converts those to Bay Program names. So, originally this was just a list of the NRCS practice codes, all the NRCS practice names, and then the name that states can submit under, and then the crosswalk to the CAST name. I got asked to add units. I got asked to add all kinds of other stuff to it and I think, at this point, it's become not as useful because it has gotten more constrained. The green, yellow, and pink are the colors I put on there just to show the three different sources and how they all crosswalk. The problem is, and I'll use tillage as an example, there are probably 15 different tillage practices that NRCS has implemented in the Chesapeake Bay Watershed since 2006, which is when their data that they provide begins. They will frequently say something like some kind of tillage, and it's for soil health or it could be for carbon sequestration, but it's got all of that. The Bay Program is definitely crediting tillage in three different ways, but none of them are direct matches to the name that NRCS uses. The states, and this is the process part, can always add to the NEIEN appendix crosswalk, the yellow to the pink. However, they typically don't unless it's a new BMP like the Agroforestry BMPs. That was the only new thing this year if those got approved which, so far, is looking good for that. But, the states, instead, put in their QAPPs that they are submitting tillage, they get it from this NRCS data or they get it from a state cost share tracking program, and then they submit it under the Bay Program BMP names. So, that's in their QAPP. That's not actually in data that the Bay Program has in a crosswalk. So, we don't know that. I think Eric is going to talk a little bit about that, but I think this spreadsheet has gotten so constrained to exactly what matches the exact text that it's become less useful. I think it would be more useful to just have practice code, practice name, no units in there. We can do unit conversions, and then the CAST name. I think that would be more useful but, again, that's what we started with. But, I'm wondering if a spreadsheet with a different level of detail might be more readable, more useful, and easier to understand. We still have to handle that states are doing the name conversion on their end before they submit, and I can't know that without reading sometimes an 80-page narrative document.

Eric Hughes: Thank you for that, Olivia. Again, I know this is sort of coming to everybody cold, but I'd like to start there. This would be for the benefit of our jurisdictional partners but also for the general public, if they are saying you don't adequately credit X, this is missing or this needs to be changed. I'd like to turn to our members first. Does anybody have any insight into what might be most useful to include on such a public facing document?

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Jim Riddell: I know you know I bring up the stream exclusion off and on. The goal numbers we have, here in Virginia we've gone through that over the last couple of years, and we know that the numbers we're providing aren't necessarily accurate. Whatever way you want to share it, that needs to be reevaluated. Unless there are maintenance projects under our program, the 10 years is where it stops. We had a governor candidate speak about it the other day, saying that we have fences that are disappearing in 10 years. So, what we are saying is the maintenance programs are not carried out uniformly across the 43 soil and water districts level of reporting. I think what Olivia hit on a little bit is that the NRCS practices are not yet being accurately reported that we do, as well as voluntary non cost share, so there could be as much as 20% inaccuracy in what we have. That's been brought out several time through some of our folks. So, we'd recommend we take a good look at the credit assigned. The big thing is the duration of the fencing that is allowed. 10 years is not accurate, and it's not what it should be. So, I think Virginia would encourage to take a hard look and a serious look at the stream exclusion credit and the credit duration that we have. So, glad to answer any questions. I've got a lot of data on it. The last couple of years I have been working on it and taking a look at it. So, thank you.

Eric Hughes: Thank you for that, Jim. You're one slide ahead of me. So, on the next slide it says does the organization you represent have priority practices to credit or re-evaluate? So, we will go to that. We will make that down as yours and Virginia's practice of interest.

Elizabeth Hoffman (in chat): MDA has a crosswalk we share with our stakeholders, when we speak to the WIP, and across jurisdictions there may be some subtle differences. Is the question - how to make this cleaner for the public?

Clint Gill (in chat): DDA only reports Nutrient Management and Manure Transport practices currently. All our other reporting comes from DE's environmental agency DNREC and from NRCS. I submit data to DNREC and they submit to CBPO so I'd have to defer to my DNREC colleagues for submission questions

Christi Hicks: You provided that spreadsheet and crosswalk. One concern I have from the NRCS perspective, which Olivia and I kind of chatted via email about, was our Conservation Stewardship Program practices. I can share my screen. If there's nothing in Column I or H, that indicates that it is not given credit in the model. Is that correct?

Olivia Devereux: Christi, it doesn't mean it's not necessarily given credit, it means that it's not given credit under the name that's listed there, and the states typically switch the name when they submit. I think Elizabeth Hoffman has in the chat that she has a crosswalk that they use, and I know it's in their QAPP, too. So, it doesn't mean it's not given credit, it's just given credit under a name that's not NRCS' name, and that's up to the state's prerogative to do that.

Christi Hicks: So, why do some have something indicated in Column H or I versus blank?

Olivia Devereux: Those are the ones where it is not an exact match for the name.

Christi Hicks: Ok. So then to your point, Olivia, the concern of maybe some states weren't crediting practices, I guess that would be the conversation, and I think that needs to happen. How would we verify that? If it's not matching exactly to a name indicated in column H or I, are states getting credit? If you scroll down to all the NRCS practice codes that start with an E, that stands for enhancement through our CSP program. So, 328, 391 (riparian forest buffer), it doesn't have anything in those two columns. So, I'm relieved to hear that states can still get credit in the model through their own internal states process, but it just concerned me when I didn't see anything in columns H or I. That should correlate pretty directly with our 391 riparian forest buffer standard.

Olivia Devereux: Does Elizabeth have that crosswalk? I haven't looked ahead to see the other slides Eric has, but it's possible he has a slide on that.

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Elizabeth Hoffman: So, I think in this example, part of the challenge is that we wouldn't report both. We are only going to report the 391 to speak to that conversion. So, sometimes it's just the state's choice of there are multiple codes that are maybe identified on a certain footprint of a practice, but in order to crosswalk to the model of what it's crediting from the land conversion or change, we're going to use just the 391 code. So, that's an example, I think. Another example of some of the mismatch is NRCS only reports fencing as a 382, but in order to credit in the model, you're reporting it with an associated buffer type and width. So, there's a classification that comes. So, for Maryland, we track that additional classification and report it as such. I don't know how other states do that or if they just get all 382, which could include interior pasture fencing. I'll say this, it's hard to talk about this watershed wide because every jurisdiction does it so differently, which is, I think, where the detail came from with what Olivia has spoken to. The spreadsheet is needed to cover the many ways. I don't know if that was helpful or not, but those are my thoughts.

Christi Hicks: I get the 382. As far as I know in West Virginia, they wouldn't credit the 382, I don't believe. They would just, to your point, credit the associated practice. So, that should be captured in maybe the 391 riparian buffer or prescribed grazing for instance. I'm a career NRCS employee, so I can talk all day about our practice standards. But, my knowledge of how states and jurisdictions have to put information into CAST is certainly limited, which is why we have these calls to try and get on the same page. But, anyways, that was my concern. I think there's room for additional conversation just to make sure we're all on the same page and to discuss how some of those enhancement practices could be credited in the model by the states.

Eric Hughes: Thank you very much for that, Christi, and I know we were talking about this offline. But, any resources from the past that you have, any crosswalks you have done previously, I would certainly like to speak with you more about that. Maybe we can follow up separately on that.

Christi Hicks: That information is kind of no longer needed, most likely. So, that was when our CSP program would use these distinct practice codes like these ANM 13/14's that didn't correlate to our regular conservation practice standards. Now our CSP practice standards do correlate directly to our regular codes, so it just has that E in front of it for enhancement. So, I don't think that's relevant anymore. I don't think we use these older codes.

Olivia Devereux: Christi, I need to add to that. I know the older codes aren't used, and I think there was like a 600 series where they were under consideration. I can't remember the first number. Is that 600 or 700 for the ones that are being proposed but are not permanent yet? Sometimes the name changes when they move it into some other hundred series for it to be permanent. The codes and the names change over the years. Since we are looking at data between 1985 and the present, we still have all those old codes, not just the E ones, and we do credit those. The code does not indicate whether or not we credit it. Even though the CSP has changed so now they are consistent with the E, then the middle three digits are the base practice, it's not the code itself we look at. We really look at the name of the practice to crosswalk it.

Elizabeth Hoffman (in chat): Agree, we could certainly discuss how we credit the enhancement practices -- but that would be under the question of "new" BMPs or additional benefits for currently credited BMPs then, not that we aren't reporting the 391 portion. But I may be mixing up the questions.

Christi Hicks: You're not pulling practice codes, you're only pulling the names?

Olivia Devereux: That's correct. The practice code that sometimes change over years.

Christi Hicks: I understand the practice codes change. Maybe we should meet sometime about that. So, there shouldn't be any of those old codes because they've kind of been phased out and CSP is a different animal. We could chat sometime but, really, when you get into CSP because

there are so many practice names, the codes may be a better way to provide information to states when you get practice data from NRCS.

Olivia Devereux: Ok. It's just that NRCS doesn't update the old records. Something that was installed in 2008 under some old practice code, NRCS doesn't go back into the record and change the code. I get the old codes in the data set because that's what NRCS provides. They didn't do just like a bulk update when they updated the code.

Elizabeth Hoffman (in chat): I think an example we have in Maryland is - a field border could re-enroll as a habitat practice (different code) and we don't credit that in the model. The field border crosswalks to NEIEN "Grass Buffers", but the habitat practice does not, per guidance. So that would be a question of - can we now add that as a "new" BMP.

Eric Hughes: Christi, I like your idea of following up offline. I think it might be helpful for us to meet separately and chat about this some more. I'm noting in the chat that there might be some confusion around the original ask. So, Elizabeth, to your first comment about how to make it cleaner for the public, I think clearly demonstrating producers know that a certain set of practices exist. If they're saying that what they're doing isn't being accurately represented, how do we outline for them what practices exist and what of those are credited in the model? That was the foundation of the question here.

Ken Staver: If you are going to talk to producers and really anybody other than people who are really into all the numbers and code names and everything else, you have to come up with a mechanistic narrative for people that starts with this is how nutrients are lost from agricultural systems, and this is where different practices intervene, and this is what you can do on your farm to change that. If you do this, it goes down this much and if you go to this, it goes down this much. This sort of just throws a bunch of numbers and codes at it for folks out on the land who aren't speaking this language, this doesn't help them very much. Somewhere there's got to be a mechanistic explanation of how this actually works out in the world for it to be communicated better to everybody.

Elizabeth Hoffman (in chat): Ok, so I think that's confusing. The SCD speaks to the needed BMPs per their SCWQP. We don't speak model to them, we translate that work back into the model.

Christi Hicks (in chat): agree 100% - less is more for the public.

Dave Graybill (in chat): Good comment Ken

Eric Hughes: That's very helpful, and I see some agreement there in the chat. That was the feedback that was really being solicited here.

Amanda Barber (in chat): Are practices not being credited because there isn't a place or way to credit, or is it because they aren't being evaluated and credited within an existing definition?

Olivia Devereux: Amanda, I am actually not aware of water quality practices that are not being credited. It's just that when people say is practice X being credited, it's being credited under a CAST BMP name. So, it's hard for anybody to understand what is or is not being credited because the names aren't matching. There are a lot of NRCS practices that are not credited. Those would be the air ones, integrated pest management plans, land clearing. None of those are water quality practices, and this is a water quality tracking system, so those are definitely not credited. But, I think the ones that have been identified as having water quality impacts are definitely credited. It's just hard to know because the names are different. So, I can work with others to make sure that we have a crosswalk that maybe doesn't work for a data person, but does work for understanding purposes, and I will go back to that original format and share it with you all maybe next month or the month after.

Amanda Barber: I think we do need to know if there are practices not getting credited. The inference from Ag Advisory Committee was that there are practices that farmers are using that they can't get credit for in the model. I haven't heard the names or them or had them described

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yet, but I think we need to make sure that we have that dialogue about that and are there things we need to be looking at more closely and giving credit for.

Eric Hughes (in chat): I appreciate that. That was really the impetus for this is trying to be proactive and get ahead of some of those questions, not just now, but into the future, too. I think the pitch maybe got a little confused. So, I'm going to go back and kind of reassess how we approach this. We can reevaluate how we go about doing this moving forward.

Jim Riddell (in chat): Good discussion.

Elizabeth Hoffman (in chat): Agree with Ken.

Amanda Barber (in chat): I'm glad NY doesn't have that issue!

Elizabeth Hoffman (in chat): Agree with Olivia. If it's possible to report them, we will. If it's new, it has to work through this process to credit in the model. There are not so many practices out there that we're not reporting, sometimes having access to the data is an issue but that's more of a verification challenge.

Kathy Boomer (chat): Agree with Ken about the need for *everyone* to focus discussion on BMP mechanisms and feasibility (including researchers) Also, lots to be gained from producer/land manager knowledge and perspective, especially in terms of understanding where and when a practice can provide targeted benefits (i.e., more information than an average annual value).

Auston Smith (in chat): Thanks a lot everyone for the overview of positions, happy to be a part of any follow up conversations on the crosswalk and BMP crediting.

Christi Hicks (in chat): Back to the topic of practices NOT currently credited....From BMP Guide: "The project MAY NOT be primarily designed to protect public infrastructure. Bank armoring and rip rap are not eligible for stream restoration credit." I recognize the habitat value of Natural Stream Restoration techniques. However, riprap/gabion baskets DO stop accelerated streambank erosion (reducing sedimentation, P transport). Just curious why streambank stabilization using any method is not credited from the erosion standpoint (similar to gully erosion that isn't tied to habitat, etc.). For another day of course!

Eric Hughes (in chat): Thank you for this, Christi - happy to have these conversations and very much appreciate your participation!

Elizabeth Hoffman (in chat): In MD, we report 580 and it crosswalks to "Stream Restoration Ag" (or NonUrban Stream Restoration) in NEIEN, is credited as a load reduction BMP.

Action: Eric Hughes, EPA, and Olivia Devereux, Devereux Consulting/CBPO, will work to develop a user-friendly BMP crosswalk document. Olivia will return to a subsequent AgWG meeting to discuss the updated document.

Action: Please provide any additional feedback on the potential format and content of the updated BMP crosswalk to Eric Hughes (Hughes.Eric@epa.gov) and Caroline Kleis (Kleis.Caroline@epa.gov) and reach out if you or the organization you represent have priority practices to credit or reevaluate.

Data

11:15 **Following up on Monitoring – 15 minutes (discussion)**

Eric Hughes, AgWG Coordinator; Jeff Hill, York County Conservation District

At last month's AgWG meeting, the group heard from a team of CBPO-based and external partners involved in water quality monitoring. The discussion will be continued briefly this month with

interested workgroup members sharing ideas for next steps in AgWG engagement with the monitoring side of water quality.

Discussion:

Jeff Hill: York County has had a fairly robust water quality monitoring setup here for the past couple of years with collaboration with USGS. Essentially, the information received here back in early spring is that the data shows that York County's water quality is above what we expected from that standpoint. So, we've certainly been engaging in asking some questions with some different groups as we move forward here over the past couple of months. Kind of what we're bumping up against, and we're finding more and more often, is that everyone loves the data and everyone has high marks for it, but no one can really assist us in getting to that next level. As it came up here through the AgWG, it's something a lot of us feel is something to focus on as we move forward. Eric and I have been talking back and forth about bringing this up and kind of throwing it out there to gauge some interest and see if there's any input from your viewpoints as to what the next steps are. Most everyone wants to use it for a targeting approach and to go back in and continue to work with small watersheds. Things like that where we could focus in and target some of those smaller entities to try and make some bigger improvement. That is perfectly fine, no issues. But, we as the county are looking to try and move that forward. I think there's a bigger narrative here that we should be utilizing this data for and whether that's to help center the model or continue those conversations at a higher level at the Bay program office, it just seems like there are other groups out there that are doing this, but it doesn't seem like there's any kind of real good path forward from anybody that has an idea of how to use this data at the next level. So, that's where Eric and I have been, and it lines up pretty well here with some of the things and the questions we've had before you. I would certainly be interested in potentially trying to have the USGS come on and showcase what's been done in York already, so you can see the level of work that's already been put forth over the past five to six years and how beneficial that's been not only to York, but also to DEP. So, more of a commercial break and just kind of a heads up and to throw it out there for everyone to see that this is what's moving forward. We do, for the most part, believe this is a good path forward. Anybody that has data on what their local water quality would be that can help move resources around and to have funding targeted to certain areas, is great. So, it's more information that's becoming available. We all talk about it, but there's not a whole lot to back it up at this point from the standpoint of being assistance to some of us.

Ken Staver (in chat): Is there a report about the York County work?

Alex Soroka (in chat): Not yet, at least not an interpretive report.

Zach Easton (in chat): It might be valuable to couple the monitoring data with some modeling (not CAST) to parse out nutrient sources and processes effecting loads, particularly at a finer (farm/field) scale.

Clint Gill (in chat): This is DE and eastern shore of MD specific, but we have longer groundwater lag times over here. USGS has a publication that estimates 10-40 year groundwater travel time from field to stream. So practices we put out are not showing up in monitoring data, and that's creating a bit of a messaging problem

Eric Hughes: I appreciate that, Jeff, and I appreciate your interest in this topic. I'm sort of hoping for all the things we have in our planning document we have some champions to help lead the way, so I don't want to assign that to you, but appreciate the leadership you demonstrated already in bringing this to us. Again, if there are concerns, questions, things that need to be addressed, this group is the platform to address those. So, I like your idea of bringing USGS to

Speak specifically to what's going on in your county, and then we can have the conversation about if it can't be integrated into what we use, why, and to get everybody on the same page. Is there something more we can do with this? That's the conversation that we can have. Neutral from my standpoint, but certainly happy to have this to be the platform if that's the will of the group. Absolutely happy to have those conversations here and to potentially have a subgroup of very interested folks to have conversations offline to take a deeper dive. Rather than spending month after month talking about it here, we can address it with the people who are particularly engaged. I really like all your ideas, and appreciate your leadership

Jeff Hill: Thank you very much. We would certainly entertain the interest, we're kind of just trying to circle up all those interested parties here at both the local level, state, and then at the federal level. So, being a part of the AgWG, I thought I'd reach out to Eric and some of the Bay Program office folks to try and touch base with some of the knowledgeable people here. So, we're looking for any and all input on some ideas and things as we move forward. I think, at the end of the day, it will be beneficial for everybody. We're just probably maybe a couple of years ahead of where this will really start to take off. We have the dashboard for the county, which I can get to Eric and we can send a link out to everybody. I don't have it up in front of me. But, yeah, there's a public facing dashboard that shows all of the information and all the compiled data that's been worked with by USGS for the past five years.

Eric Hughes: Another interesting conversation in the chat is about lag times. I think Olivia addressed this a little bit in her presentation last month. But, yeah, certainly want to make sure that if there are these sort of questions or misinterpretations or opportunities for doing things differently, that all can come here. So, I want to give folks a minute to weigh in on that.

Clint Gill (in chat): I know we're a small part of the watershed, just wanted to raise that issue

Matt Kowalski (in chat): Hi Clint. We have some significant lag times in the Shenandoah Valley as well, So I hear you!

Alex Soroka (in chat): True but GW lag is watershed wide. Sure it depends on the geology and is variable, but it exists across the watershed. Also we are trying to get age dating at the Bucks site before our FY ends.

Alex Soroka (in chat): Here's the York county dashboard [York County Water Quality Dashboard | U.S. Geological Survey](#)

Marel King (in chat): Thanks for bringing this up, Jeff. I have been excited about what York and USGS are doing but I have been struggling with how to describe or make the case for expansion, so I would welcome further discussions.

Action: Jeff Hill and Eric Hughes will discuss next steps for bringing water quality monitoring topics to the workgroup. Any members interested in continuing discussions offline or potentially forming a small group focused on water quality monitoring should reach out to Eric Hughes (Hughes.Eric@epa.gov).

Modeling

11:30 Agriculture Land Use Loading Rate Ratios – 30 minutes

Hunter Landis, VA DCR; Scott Heidel, PA DEP; Tom Butler, AMT Coordinator (EPA)

This meeting will be recorded. Sharing of recordings is not permitted due to current EPA policy.

In February, the Agricultural Modeling Team (AMT) voted to implement two new agricultural land uses: managed pasture and managed hay. The AMT later established a subgroup to determine how these new land classes load nitrogen relative to their unmanaged classes. Proposed loading rate ratios for these land classes have not received consensus approval at the AMT; however, another attempt at a vote will be made at their September meeting (following further discussion). As this item may be elevated to the AgWG, representatives of the AMT proactively presented background on the topic to support a vote from the AgWG in September, if needed.

Discussion:

Amanda Barber (in chat): Who are Subgroup reps?

Caroline Kleis (in chat): Hunter Landis, Zach Easton, Scott Heidel, Ken Staver, Jess Rigelman, Joseph Delesantro, Seth Mullins, Nicholas Moody, Candiss Williams, Tamie Veith, Curt Dell, Lisa Duriancik, Cassie Davis. (Note this includes people who have been added since the initial meeting).

Eric Hughes: To clarify for everybody, the folks who were just named belong to the subgroup subgroup handling this issue in particular. Thank you, Tom, for the clear explanation. It will potentially come back in September, so keep this in the back of your mind, and we will discuss it as needed then.

Wrap-up

12:00 New Business, Announcements & Updates

- **AMT Updates – Tom Butler, AMT Coordinator**

- Tom Butler, AAC Coordinator, provided the group with an update on the work of the AMT. In particular, Tom noted that the group is working on loading rate ratios and fertilizer. The group has made a motion to shift from watershed wide stocks towards state scale fertilizer stocks. The group has also changed how they calculate grains with and without manures. The AMT is working on broiler information, with the help of Delaware, and will also be looking at Hillandale and layer populations in future months. The AMT is also exploring animal BMP excess and will be having an interim meeting to discuss exclusion fencing.

- **Discussion:**

Eric Hughes (in chat): For more on what's to come at the AMT, keep an eye out for their agendas, posted on meeting pages (listed here:

<https://www.chesapeakebay.net/who/group/agricultural-modeling-team>)

Greg Albrecht (in chat): Tom, did the test run result in more N fertilizer applied when totaled across all crops than the current condition?

Tom Butler: That stock is kind of constrained by the yields, and it didn't necessarily change too much. It kind of shifted it around. Jess can probably give us a better answer on the total amount, but my recognition is it was not anything substantial.

Greg Albrecht (in chat): That's right.... forgotten exactly about our fertilizer caps.

Ken Staver: Isn't the total fixed by the fertilizer bucket.

Tom Butler: It's fixed through 2020. I don't know the years I had shown there.

Jess Rigelman (in chat): The total is fixed

Ken Staver: So, there's places where it goes up and goes down, and it varied in the states. So, the states with more grassland would have bigger shifts off of their crops

than in the states without grass land uses. Although, we haven't moved to the state bucket for this test, so that change will be different after we shift to the state bucket. **Tom Butler**: Yeah, and we did initially look at doing this kind of changing application rates when we worked on the state scale. Obviously, this test was at the watershed scale. When you change things at the state scale with the watershed amount, you pull from the watershed, and it adjusts it across the states. So, the state scale will have an impact on this. I don't know what it will be, and I certainly don't know what it will be for loads. This was applications which, again, are fixed, and that's based off sales information and percentages of need based on crop yield.

Greg Albrecht (in chat): Thanks, Ken, Jess, Tom.

Greg Albrecht (in chat): Thanks. If that could be presented as it's developed, that'd be great.

Eric Hughes: Thank you very much, and Greg would like to see it presented as it's developed.

Tom Butler: Yeah, we will certainly keep people in the loop. Again, these ratios are a big part of this right now. So, we will figure that out and try to get back to people.

- **WTWG Updates – Auston Smith, WTWG Coordinator**
 - Auston Smith, WTWG Coordinator, provided the group with an update from the August WTWG meeting. Auston noted that the group approved the Agroforestry EPEG Technical appendix, two different construction decisions were reached, and the methodology for upland buffer crediting for non exclusion buffers was also passed. Auston noted that the group moved towards making a decision on a revised cover crop methodology to handle excess for Phase 7 and the decision was passed by those on the call. However, following the call, one of the members not presented voted a 1. If consensus is not reached, this might come to the AgWG for discussion.
 - Post Meeting Note: This vote on revised cover crop excess methodology has since been changed to a 4, the methodology was approved, and this will not need to be discussed at the AgWG.
- **AAC Updates**
 - Eric Hughes, AgWG Coordinator, noted recent and upcoming Ag Advisory Committee events. In particular, the AAC hosted two webinars before their in-person meeting on August 28th. The first webinar was about the expert panel process, and the second was about verification of BMPs for annual progress. Tom Butler and Eric Hughes will be attending the in-person meeting, and Tom will present on ag model inputs. Other topics of discussion for the in-person meeting include shaping Chesapeake Bay Policy and discussing comments on the draft Bay Agreement.
 - The Ag Advisory Committee will meet on [August 28th from 9:00AM-4:00PM](#) at the Adams County Soil Conservation District Office in Gettysburg.
 - For more information, or if you'd like to be added to the interested parties list for the AAC, contact Jen Nelson (jen.nelson@resourcesmartllc.com).
- **Water Quality Goal Implementation Team (WQGIT) Informational Phase 7 Office Hours Sessions**

This meeting will be recorded. Sharing of recordings is not permitted due to current EPA policy.

- The WQGIT will be hosting a variety of informational office hours sessions focused on key Phase 7 topics. Remaining session dates and topics are below:
 - **Mon 9/15 1:00-2:30pm** - Wastewater Topics: Exfiltration method, CSO Loads, Septic/Sewer Model, SSO Loads, Boat Pump-Outs
 - **Thu 9/18 2:00-3:30pm** – Held for remaining or parking lot topics, if needed.
- Please note office hour topics and schedules are subject to change as these items are discussed at their respective workgroups. All office hour sessions will be posted to the Chesapeake Bay Program [Meetings Calendar page](#).
- **Bay in the Balance 2025 Conference**
 - This event will take place December 8-10 at the Wyndham Conference Center and Hotel in Gettysburg. For more information on the event and to register, please visit the following [site](#).
 - Please note: Given that many AgWG members will be participating in this conference, AgWG leadership intends to schedule an in-person AgWG meeting on the afternoon of December 10th after the end of Bay in the Balance, in lieu of the workgroup's December meeting currently scheduled for 12/18.
- **2025 NFWF Chesapeake Agricultural Networking Forum**
 - This conference will take place November 12-14 at the Hershey Lodge in Hershey, PA. For more information, and to register for this event, visit the following event [website](#).
 - For additional details, feel free to reach out to Kristen Saacke Blunk: kristen@headwaters-llc.org, Kristen Hughes Evans kristen@susches.org, or Natasha Rathlev natasha@susches.org.

12:00 Adjourn

Next Meeting: Thursday, September 18th, 10:00AM-12:00PM

Participants:

Kathy Brasier, PSU
Caitlin Grady, GWU
Eric Hughes, EPA
Caroline Kleis, CRC
Emily Dekar, USC
Auston Smith, EPA
Tom Butler, EPA
Dave Graybill, Farm Bureau
Tammy Swihart, USDA NRCS
Greg Albrech, NY Dept of Ag & Markets
Cindy Shreve, WVCA

Christi Hicks, USDA NRCS
Clint Gill, DDA
Matt Monroe, WVDA
Denis Uzupis, PDA
RO Britt, Smithfield Foods
Jim Riddell, VA Cattlemen Association
Paul Bredwell, US Poultry and Egg Association
Caroline Harper, Campbell Foundation
Karl Blankenship, Bay Journal
Matt Royer, PSU
Scott Heidel, PA DEP

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Nicholas Moody, VA DCR
Jeff Hill, YCCD
Hunter Landis, VA DCR
Olivia Devereux, Devereux Consulting/ CBPO
Emily Heller, EPA
Helen Smith, Devereux Consulting/CBPO
Jenna Schueler, CBF
Nick Hepfl, HRG Inc
Alex Soroka, USGS
Marel King, CBC
Ken Staver, UMD/Wye
Jen Nelson, AAC Coordinator
Brian Fox, DOE
Matt Kowalski, CBF
Amanda Barber, NY Cortland County SWCD
Nathan Radabaugh, PA DEP
Cassie Davis, NYSDEC

Seth Mullins, VA DCR
Jess Rigelman, J7 Consulting/CBPO
Elizabeth Hoffman, MDA
Anne Coates, TJSWCD
Scott Raubenstine, Perdue
Jeremy Hanson, CRC
Grant Gulibon, PA Farm Bureau
Katie Brownson, USFS
Jackie Pickford, USGS
Ruth Cassilly, Harford Soil Conservation District
Samantha Cotten, DNREC
Joseph Schell, DNREC
Mark Rohrbach, Rohrbach's Farm; AAC
Zach Easton, VT
Matthew Robinson, EPA
Kate Bresaw, PA DEP

Acronym List

AAC- Agricultural Advisory Committee
AgWG- [Agriculture Workgroup](#)
AMT- [Agricultural Modeling Team](#) (Phase 7)
BMP – Best Management Practice
CAST- [Chesapeake Assessment Scenario Tool](#) (user interface for the CBP Watershed Model)
CBP- [Chesapeake Bay Program](#)
CBPO- Chesapeake Bay Program Office
CBW- Chesapeake Bay Watershed
CTIC – Conservation Technology Information Center
CVN – Conservation Validation Network
EPA - [United States] Environmental Protection Agency
FSA – Farm Service Agency
MLRI – Modeled Load Reduction Indicator
NRCS – Natural Resources Conservation Service
NFWF – National Fish and Wildlife Foundation
ORISE – Oak Ridge Institute for Science and Education
PADEP – Pennsylvania Department of Environmental Protection
PSC – [Principals' Advisory Committee](#) (CBP)
PSU- Penn State University
SWCD – Soil and Water Conservation Districts
WQGIT- [Water Quality Goal Implementation Team](#)
UMD - University of Maryland
USDA – United States Department of Agriculture
USGS – United States Geological Survey
USFS – United States Forestry Service