Agriculture Workgroup

May 21, 2026
10:00AM-12:00PM
Visit the meeting webpage for meeting materials and additional information.

Purpose: To discuss the Ag E3 scenario development, explore systems thinking approaches to Bay restoration, and discuss relevant Clean Water Goal Team/ Water Quality Goal Implementation team efforts related to management strategy development and workgroup/goal team structure.

Summary of Actions & Decisions

Decision: The AgWG approved the April 2026 meeting minutes.

Action: The AgWG will continue drafting the E3 Scenario for the Ag Sector on the anticipated timeline as outlined in the following slides. Following the May meeting, the spreadsheet with draft Phase 6/Phase 7 assumptions will be distributed to AgWG Signatory and At-Large members with a requested deadline for feedback of June 5th.

Action: Caroline Kleis, AgWG Staffer, will continue to document subgroup meeting notes and additional information that may be useful for future E3 Scenario development.

Action: Eric Hughes, AgWG Coordinator, will update his slides to remove the tidal wetlands items from the E3 presentation.

Action: Jess Rigelman, J7 LLC/CBPO Contractor, will confirm whether or not the draft Phase 7 land use acres presented in the E3 spreadsheet are representative of the Chesapeake Bay watershed or full state.

- Post Meeting Note: It was confirmed by Jess that the acreage in the E3 spreadsheet represent the full state.

Action: AgWG leadership will consider revisiting the systems thinking approach at subsequent meetings. Members with questions or feedback on this approach should reach out to Caitlin Grady, AgWG Chair (caitlin.grady@gwu.edu).

Action: AgWG leadership will continue to keep the AgWG informed of any updates related to membership structure. Members are encouraged to provide feedback on the potential method for conforming to the 9 signatory/ 5 at-large member structure, as outlined on slide 25 of the following presentation.

Action: AgWG leadership will submit responses to the Clean Water Goal Team leadership regarding the Management Strategy Worksheet by June 2nd. Members interested in contributing to the Management Strategy development should reach out to Eric Hughes (Hughes.Eric@epa.gov) and Caroline Kleis (Kleis.Caroline@epa.gov).

Meeting Minutes

I. Welcome, Roll Call, Review Meeting Minutes
Lead: Caitlin Grady, AgWG Chair

Caitlin opened the meeting and requested participants share their name and affiliation using the meeting "Chat" function. Caitlin then asked workgroup members to approve the April AgWG meeting minutes.

Decisions:

1. The AgWG approved the April 2026 meeting minutes.

II. Ag E3 Scenario Development Update and Group Discussion

Lead: Eric Hughes, EPA

Eric reviewed an early draft of feedback on the ag E3 Scenario, recapped insights from the Urban Stormwater Workgroup and Forestry Workgroup, and provided an overview of Ag E3 Small Group meetings. The group was asked to share initial feedback on the draft. The in-meeting discussion was used as an opportunity to level-set and identify clear "sticking points" for the group.

Additionally, Eric presented an initial timeline for the drafting of the Ag E3 Scenario. The timeline is as follows: The spreadsheet will be shared following May meeting with signatory and at-large members with a request for feedback June 5th; Subgroup meeting will take place between June 8-12; Additional discussion at June 18th AgWG meeting; July 2nd- feedback due on next draft; July 6-10 Subgroup meeting; July 16 AgWG meeting discussion/decision; July 30th draft feedback due; August 3-14 Subgroup meeting; August 20th final decision.

Actions:

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2. Caroline Kleis, AgWG Staffer, will continue to document subgroup meeting notes and additional information that may be useful for future E3 Scenario development.
3. Eric Hughes, AgWG Coordinator, will update his slides to remove the tidal wetlands items from the E3 presentation.
4. Jess Rigelman, J7 LLC/CBPO Contractor, will confirm whether or not the draft Phase 7 land use acres presented in the E3 spreadsheet are representative of the Chesapeake Bay watershed or full state.
    a. Post Meeting Note: It was confirmed by Jess that the acreage in the E3 spreadsheet represent the full state.

Discussion Notes:

Ken Staver: Tidal wetlands are not ag land, right? I am not sure why tidal wetlands are on our docket at all unless we are talking about saltwater intrusion and loss of salinity. Why do we have tidal wetlands in our scenario at all?
Eric Hughes: That is a fantastic question, and I bet that was an oversight on my part.
Ken Staver: I know there is a lot of work going on related to saltwater intrusion and there are some people saying that the way to handle that is figuring out ways to save ag land. But, I think in some places they are talking about a managed retreat and transfer over to natural wetlands. Other than that, I can't see it being in our docket.
Jessica Rigelman: Tidal lands are not a part of CAST or the Watershed Model. So, all of those acres are removed so they are not a consideration for you.

Eric Hughes: So, this slide can be deleted then, Jess? Is that what you are saying?
Jess Rigelman: You have non tidal, but tidal acres are gone, yes.
Eric Hughes: We will add another strikethrough to these slides. So, there are 3,000 acres for wetland creation. Thank you, Ken, for flagging that, and thank you Jess as well.
Suzanne Shea (in chat): Is it because some farmland is considered wetland.
Mark Dubin (in chat): In follow up to Ken's comment, I would also note that buffers and non-tidal wetland can also be implemented on non-agricultural land uses, such as urban. Should we be assuming that all conversations need to be applied to ag land uses? Thanks!
Ken Staver: Can I ask a question about your last forestry slide? This is about trying to decide what the E3 scenario looks like. That's what we are talking about here, right?
Eric Hughes: Yes, that's correct.
Ken Staver: So, [we were asked to] "increase cropland pasture within 300 feet of streams", but we are saying keep it at 100 feet. Is that what you are saying the recommendation was for Phase 6?
Eric Hughes: In Phase 6, we were looking at 30 meters or 100 feet. You will see that in the spreadsheet. This will tee us up for when we go BMP by BMP. So, yes, you will see what the Phase 6 assumption was. I guess the moral of the story is Forestry had asked us to consider if ag would be open to expanding the bufferable area based on what the BMP prescribes. Maximum implementation in theory would be crediting out to 300 feet from the streams. Already we have heard, no, that's not something we would be interested in. It is not a path that we'd be interested in going down. This is not something that the Forestry Workgroup is necessarily interested in pursuing – just something that was floated for consideration.
Ken Staver: A lot of our buffers on cropland are CREP buffers. Forest is an option, but by far the most implemented is grass, grass or shrubs, but mostly not forests. What's the interplay between E3 being 100% buffers of some type versus just forest or just grass? Is that discussion going to come up later? No one really advocates for grass buffers. There's not a grass buffer workgroup. Grass buffers are just kind of like the plan b. People feel like it is the fallback position from the ultimate buffer. I am wondering about E3 and if it would just be all buffers?
Eric Hughes: That's a great question, Ken, and I think it's a good sign that you are on the same page as many of the folks who are in the small group because this was something that we discussed at length. Bill Keeling was very vocal about this- is it appropriate to have 100% of riparian forest buffers? Should we have a lower percentage of forest buffers and a higher percentage of grass buffers than we put forward for Phase 7? A sticking point is going to be whether or not this is intended to be realistic. So, that was something that came up a lot in the two discussions that we've had so far. We have heard from members that they feel E3 should be more realistic. It's not realistic to say that we have 100% riparian forest buffers. However, the E3 Scenario is not intended to be "realistic". Certainly, we are not expecting to have 100% implementation of forest buffers in 100% of the riparian area out to 300 ft. For example, the point that Bill (VA) and Maryland is making that I can relay here is if we were to say every acre in the watershed is just going to forest, we aren't going to plant trees on every single acre because, realistically, you need to have food production. So, what's the threshold? What's realistic? What's not realistic? What should we have for E3? I think that's why they kick it to the partnership and let the partnership work through all these things. For Phase 6, I think it was very robust. It seems like folks [were interested in] saying 100% riparian forest buffer because there's more credit associated with riparian forest buffers than grass buffers, even though what's "realistic" is probably a split where there's a balance between those. So, it's going to be whatever we decide through this process. I think the purpose is really to try to maximize to the greatest degree that this is the most we can do. So, it's theoretical, not realistic. All that to say folks have already raised this as something to consider. We had previously done 100% forest, 0% grass, but it is certainly up for the workgroup to discuss whether or not you want to increase that grass percentage.

Ken Staver: If we aren't being practical, then we don't have to be constrained by anything. A lot of the grass buffers already have contracts that might be 10 or 15 years. So, at the programmatic level, you can say what's theoretically possible, but those aren't available actually to be a forested buffer because they're committed to being something else. I guess you could talk about your 20, 30, and 40 year scenarios but, near term, they're not available. I am good with it being what you could absolutely do. I guess you could just throw in re-forest everything and import all your food. If you just want to call it all theoretical, you can do almost anything I guess.
Clint Gill (in chat): Moving every human out of the watershed and returning everything to forest is technically full E3. We have to decisions about what is feasible
Jess Rigelman (in chat): That is the All Forest scenario that we will be running.
Eric Hughes: Jess says that's all forest. I know that Urban Stormwater is looking at physical constraints which is a sort of "feasibility". What specifically those physical constraints are, I don't know off the top of my head, but that's something that they've mentioned. So, I think everybody's doing this to some extent. The thought is just that we will try to be as ambitious as possible.
Ken Staver: I have one more technical thing. I haven't looked at it for a long time, but I am not certain that the sediment reduction isn't actually higher with grass buffers than forest buffers. I have some vague memory of that being the case. So that may not be for sediment that that's actually the max benefit.
Elizabeth Hoffman (in chat): Just a note to Ken, while GB are often the back up plan to priority of forest buffer, we're seeing more GB for wildlife (in MD) so that can be considered. To your CREP note and program influence.

**Eric continued to walk the group through the slides and associated spreadsheet summarizing P6 and P7 Ag E3 assumptions, draft P7 land use acres, the ag land use change BMP crediting order, and additional calculations.*

Elizabeth Hoffman (in chat): Maryland has this same spreadsheet with a column for Maryland notes. We can send for incorporation before this goes out to the larger group, if helpful to have those additional data points.
Clint Gill (in chat): Is [the draft phase 7 land use acres] CB watershed or full state?
Jess Rigelman: I believe it was full state. I will have to double check that and get back to you. So, if it is just the watershed version, I will have Eric follow up with you, but assume they are full state at this time.
Jess Rigelman (in chat): Please keep in mind that this is very, very draft P7 land use.
Ken Staver: Can you go back to that slide you were just showing up about the buffers? The first column on the cropland one, that's the area that's available? Say for Maryland, 70,000 acres is bufferable. Is that what this table is?
Eric Hughes: The streams that Peter's team is looking at, this is taking a look at where that intersects the different land uses. What is the acreage within 100 feet of that stream layer in these various land uses? So, based on 2021/2022 acres, 70,000 would be available in cropland within 100 feet of the streams to buffer in the state of Maryland.
Ken Staver: Obviously those areas that are already buffered are a part of that 70,000 acres. Is that right? Did they come up with that number as well or not? I am wondering how you have 300,00 acres of forest land that's bufferable. If it's forest land, it's already forest. So, I am not sure what's eligible within forest unless I'm not reading the headings right.
Eric Hughes: That's my mistake. It's riparian land area. So, this would be the acres within 100 feet of stream for each of these. I shouldn't have said realm of bufferability. For cropland and pasture, if there are this number of acres within 100 feet of a stream, then the thought would be that those acres are bufferable. Does that make more sense? I don't know if I am making that any clearer.

Ken Staver: Some of that already is and, presumably in Maryland, we've got 20 some thousand acres of some kind of buffer that is already there. So, what is left would be some subset of that, I guess.
Carlington Wallace: When we talk about bufferability, are we looking at forest buffers and grass buffers together? For example, if there's 100 feet available for buffering between a cropland and the streams, are we considering an integrated approach where there's a percentage that is grass buffers specifically and a portion that is forest buffer? Are we looking at that?
Eric Hughes: That's a great question. The answer to that would be yes. So, if there are 70,000 crop acres available to be buffered, then the partnership would be setting that percentage for what would be forest and what percentage would be grass. So, this is not to say one or the other. This is just what is available. Does that answer your question?
Carlington Wallace: Yes. That's good because I heard you mention Maryland was suggesting 15 meter buffers. So, the size of the buffer would heavily influence what type of buffer it is or how you proportion that forest to grass buffer, especially around the cropland areas. So, when you are modeling scenarios, it's something to consider whether you are doing a 15 meter buffer or 30 meter buffer, the intensity of one type of buffer versus the other. So, that's something Maryland would have to take into consideration if they're making a recommendation to go with a 15 meter buffer.
Eric Hughes: Thank you for the input. All feedback is certainly welcome, and all considerations are open. We certainly want to make sure we aren't missing anything, so I appreciate you weighing in with that.
Elizabeth Hoffman (in chat): Jess/Eric, It would also be helpful to have "batting order" (in Bill's words) or how BMPs on feed acres interact - BRC, LLM, Ag Stormwater Management is also applicable.
Jess Rigelman (in chat): Elizabeth, BRC and LL are mutually exclusive. Ag SWM can be placed on top of them.
Mark Dubin (in chat): Buffers could already be present but less than 30 meters wide.
Elizabeth Hoffman (in chat): The recommendation to halve the P6 width (30m) to 15m in P7 - for RFB - was based on both VA and MD concerns over smaller field sizes. And that was specifically in response to the FWG E3 note, in the spirit of E3 being a stretch goal but based in reality for the ag industry and landscape pressures. Just adding that note as to what was discussed and considered.

III. Thinking in Systems – Agriculture and the Chesapeake Bay

Lead: Caitlin Grady, GWU

As the Chesapeake Bay Program Partnership begins the post-2025 period of the Bay restoration effort, there is an opportunity to explore novel approaches to addressing nutrient and sediment pollution in addition to those that already work well. Caitlin introduced work that she and colleagues have led focused on systems thinking – and opportunities to bring systems thinking to the Bay restoration effort, specifically in the agriculture space.

Actions:

1. AgWG leadership will consider revisiting the systems thinking approach at subsequent meetings. Members with questions or feedback on this approach should reach out to Caitlin Grady, AgWG Chair (caitlin.grady@gwu.edu).

Discussion Notes:

Suzanne Shea (in chat): When we improve soil biology, we are not just changing one variable. We are influencing water movement, nutrient cycling, resilience, profitability, biodiversity, and long-term land stewardship simultaneously. That is why biological systems thinking matters.
Jim Riddell (in chat): Great work by your group Caitlin -matches with a lot we hear and experience - budgets, costs, etc. many variables to consider
Eric Hughes: This is interesting, Caitlin. With the mapping concept, I just want to confirm that is not something we have for the Chesapeake Bay Watershed, or is it something that exists?
Caitlin Grady: I don't think I have seen anyone do that yet. But, I could be wrong. There could be something I am unaware of in terms of the history of conversations, etc.
Eric Hughes: This, in my mind, ties into the Clean Water Goal Team discussions and how we are looking ahead to the years leading up to 2030 and 2030 and beyond. We're going to need to have a look at what our next set of targets are. What is our roadmap going to look like for how we're going to get there? Do you think it would be a "missed opportunity" if we don't consider some of these broader external forces as we go down that path? Is that something that you think could inform those discussions/decisions?
Caitlin Grady: I hedge against calling things missed opportunities. I do think discussions like this or mapping like this can be useful in helping consider not necessarily the externalities or the external forces, but rather I think the most use is that you name those externalities and external forces and then you name the ones that are internal. Then you try and look at the entire picture of the system and narrow down what you have control over, what you have the power to influence, and what decisions are in your power/state's power/or in local government's powers. Then you can feel confident as a group, network, and community that the decisions you are making going forward are the ones that everyone is prioritizing and everyone thinks can influence the system in the way that they seek to. There are no doubt things that are outside of the influence control, but it helps to put everything on the table to decide that. At least that's the thinking.
Ken Staver: I am just pondering this after 30-40 years at this, trying to make progress, and thinking about what we've learned, I've been sort of trying to push this in the other direction. Every field is management by a farmer that is making decisions at their level. You mentioned things they don't have control over. They don't have control over global grain markets. The don't have control over nitrogen fertilizer prices. They don't have control over the weather. Everything you say is true about how systems are and all those factors involved, but we're sort of already left with the reality of dealing with things that are within our control and the resources that are available to us. For example, we were just talking about buffers a lot. That's mostly federal money. We have state cost share money that goes into it, but the big chunk of our buffers and our wetland restoration on cropland comes from Federal programs that are USDA/NRCS programs. They have multiple objectives in their programs. There are national standards. They aren't just state standards. So, they aren't looking for pounds of N and pounds of P. They are looking for habitat for wildlife and all these other things that are not just our Chesapeake Bay dead zone goals. But, we take advantage of our programs that are there and we encourage our legislators to advocate for us at the Federal level. So, we are sort of already dealing with what you formalized here. It's already our reality in terms of how we are operating. We draw these big boundaries around and can be fairly close on the big numbers. Fertilizer N right now is our "800-pound gorilla" that we are dealing with. We aren't even sure if it is an 800-pound gorilla or a two-ton gorilla or a 400-pound gorilla. We don't even know what it is. But, we know it's this big number and the way that we have our model structured, it's given us a hard time. Then every state has their own program. So, what Maryland does and what Pennsylvania does are their state policies. We don't have a Chesapeake Bay-wide policy. We are trying to work together for a common goal, but the reality is the states allocate funds and resources. Agriculture is a different part of the economies in the different states. They have different types of agriculture. I appreciate what you are doing, but they're already the reality for us down at the level that we have to try and get things on the ground. So, I like going down to the field level and saying what do we need on this

field? Then you work backwards from there and say what levels do we have available to us to influence this?
Suzanne Shea (in chat): I was going to say exactly that. Farmers have to make a profit to keep farming. They can't keep operating at a loss and this affects the environment. I agree about the model also. It's time that we actually verify in real time.
Caitlin Grady: I agree. I think that's why our Illinois work was directly with farmers, asking them how they manage their land on their properties. You are right, and I agree with the comments in the chat. Farmers have to make a profit. I think our goal is not to necessarily change the farmers' behaviors. They have to make a profit. They have to make choices. They have uncertainty. But, it is to see if we can understand ways to make their lives easier. That might be advocating for changes to the federal policies. That might be advocating for changes to the state policies.
Suzanne Shea (in chat): One of the most unused levers are native living microbes. Can we advocate for those changes?
Ken Staver: We just talked about buffers a lot this morning. Now we have these windows opening and closing on CRP signups. So, it used to be for years it was a rolling sign up. You could go in and talk to NRCS about putting in a buffer. You had time; there wasn't a rush. You could work through the process. Now we have these windows that pop open and you have to run in there and there are all these decisions to make. People say, look, "this is too fast. I don't have time for this right now." Then the window closes. It's all decided at the national level and, right now, it's tough to get farmers to do it unless they are all in on it. Which, at this point, most of the people who want to really be in are in. So, I am feeling like we really have to get down to the level of the farm operations that we have in our jurisdictions. Everybody knows their jurisdictions the best, what's driving them, and what the bottom line is. In the end, it's economic. We have a small subset that is out on the fringes of the bell curve. But, with the mainstream farming on most of the acres, they are just making economic choices to try and survive. Who would have ever thought a dairy farm would be above the fold on the Sunday New York Times about how small dairy farms are going out of business? How many times has that story been repeated in the Chesapeake Bay Watershed in the last 50 years? So, that's sort of the reality that is out there.
Mark Dubin (in chat): Do the models allow predictive future outcomes by modifying the levers? If so, that may be an area to assist the CBP partners focused on outcomes to meet the TMDL goals. Thanks!
Suzanne Shea (in chat): And the farmers choices are based on university direction. Farmers ask the experts and they tell farmers what to apply, then the farmer is reprimanded for applying it. Which may be why we are losing farms at the rate equivalent to 77 farms a day for the 5 years prior to last year. Thank you for your comments Ken.
Caitlin Grady: Ken, you're right. They are making decisions. You also said we have most of the people who want to elect into these programs in them. So, what does that mean for the partnership? Can we just keep doing what we're doing to move forward? Is that our goal? That's ok if the partnership answer is yes. I'm not here to tell you one way or the other. I'm just here to present some questions to help us think through the fact that ag is going to be another heavy part of the conversation going forward. Is it business as usual or do we want to make some recommendations?
Ken Staver: My view of it, as someone who has been involved for 40 years and is about ready to sign off, is that we've overestimated. I consider myself a relentless incrementalist. The first 10-20 years was mostly an argument about whether or not ag was even a problem other than soil erosion. We bought into soil erosion being a problem for a long time. But, I am talking about the dissolved nutrients, the nitrate and the dissolved phosphorous. Even in Maryland, we're right in the heart of the Chesapeake Bay. It is part of our culture. I grew up in Pennsylvania. I didn't even know where the Chesapeake Bay was. Then you go up to upstate New York and, crabs and oysters, they don't eat that stuff. So, this is an incredibly difficult thing to get people throughout this whole watershed to buy in. Even in Maryland, with the history of the land grant systems and

defending ag, we started in the 80s but we didn't have full on institutional buy-in. I would argue we still don't have full on institutional buy in dealing with this problem. So, I would say not to be too disheartened by the lack of progress over 40 years but to look at how far we've come just in terms of dealing with the issue and getting it to be a mainstream issue. Penn State is all in right now working on these issues, and they weren't all in in the 90s. It just wasn't part of what land grants and extension did. I want to argue that we always need to be making changes and looking closer to make sure we're not missing things or doing the wrong thing. But we need to look at why we're coming up short. I agree with you. But stuff comes out and says "nothing's working", "it's hopeless", "we'll never get there", and I think that's not a very well informed approach. But, you do have to be realistic about what's going to constrain behavior of farmers in terms of surviving economically.
Caitlin Grady: I appreciate that, Ken. I agree we've made tremendous progress in the last 40 years. I agree completely with that. A lot has been done, and its been tremendous. Nick, did you want to add to the discussion?
Nick Hepfl: I will offer that I like Ken's explanation of where he has been working on this in the last 40 years. With my perspective, too, I am lucky in my job; I get to see so many diversities. I work in Pennsylvania, and you all have your own perspectives on your different states and regions. But, I can definitely understand how this systems thinking approach could be refined and thought about at more of a micro level for us. We spend a lot of time in the high-level stuff, which is great, and it's a great expectation for this workgroup. But I kind of thought about your presentation in our work. As I travel from the very northern regions of the Watershed, to Lancaster, to Center, to Union and Snyder counties, each one of those counties has different farmer expectations and goals, just like Ken was getting to at the field level. For example, understanding the conservation program structure within those regions and how to effectively to deliver those BMPs for those unique in and out challenges of what you are talking about with the systems level approach. I think that approach could offer a lot of benefits to thinking about our micro regions within our own regions and how we can better tailor funding and policies to ensure that we are being encompassing of everybody and those individual unique challenges. Some of the things that we've seen with tillage it's like, wow, why isn't everybody no-tilling? Then you think about how we are feeding an organic market that is forcing a lot of tillage in certain regions, whereas certain regions are really moving in a direction towards grazing. Others are dairy. It's so micro specific county to county. Even within counties, there are micro regions. I had a little bit of hope in your presentation, and I thought this approach could really benefit all of us by thinking about how we could deliver those beneficial BMPs and policies within a smaller scale and figuring out what levers at micro scales would be good to pull on. I appreciate it, thank you.
Suzanne Shea (in chat): We can get there. We haven't even touched native soil microbiology. Except for the "I" states which have been listening and making native biological changes.
Caitlin Grady: I am now also reflecting on some of the comments in the chat about losing farms and echoing Ken's point. The other thing I think about a lot with the systems thinking is actually not asking farmers to do more. We've asked them to do so much, and they're barely getting by in this economy, particularly in our region where it's hard to be efficient and hard to make money on small farms and all of these things. I often wonder if in mapping things out like nitrogen and phosphorous interaction and effects and influences, we can find other actors in this system that are worthy of pressure and influence so that we can stop burdening farmers. That's the other thing I think about when we are talking about supply chains. There's a lot of other actors in the system so that we don't have to burden farmers with more things when they are just trying to get by. Jim, do you want to add more on the farmer's perspective?
Suzanne Shea (in chat): Caitlin! That is so refreshing to hear, as a farmer!
Jim Riddell: Thank you. I appreciate your work and your study. We heard earlier that if we could turn the whole world back to forestry, everything would be perfect. At the same time, we're

losing farm and forest land at massive rates across the northeast and southeast. So, that's a big area, and it's a big important thing in Virginia. I think we heard it at the Bay in the Balance conference multiple times that economics and budgets and the costs/returns of these basics operations, whether it's crop or livestock, and then what the cost and returns of the BMPs are with these enterprises is quite important. I really think we are on the right track to tie that to our conservation programs as much as possible. I know here in Virginia that's a priority for us- making sure we know exactly what that means to the individual and someone down at the micro scale/farmer level. So, I applaud your work. Keep going. I think it adds a lot to the conversation. We've got to protect our water and we've also, as someone said, got to eat and produce and all those other things. So, thank you for what you are doing.

Caitlin Grady: Thanks, Jim, and thanks for your participation as always. I didn't get into the details of our modeling work, but one of the biggest influences we found in these set of articles was if we wanted to reduce nitrogen, it had nothing to do with what farmers apply on fields. One of the biggest levers we found in this work was actually the feed conversion ratio in poultry. That is something that is an industry technology advancement that we could be using to drive nitrogen reductions that has nothing to do with fertilizer application rates, for example. The poultry industry has already advanced with more efficient feed conversion ratios. If you look at their trajectory over the last 20-30 years, it's been incredible. If we keep pushing that, you would save a lot. That has nothing to do with asking people to do more buffers on their land.

Marel King (in chat): The "levers" are important from a policy standpoint, because it could open up new options beyond BMP-focused solutions, like market development, business planning, input costs, etc.

Elizabeth Hoffman (in chat): Thanks, Dr. Grady. I appreciate that we work at the field level but the value in this kind of system thinking seems relevant to large scale planning questions (efficiency of programming, delivery of programming) - the many asks of working lands, solar, consideration of SWISLR, speaking to the economic value of nutrient management for an operation - influencing that change in adoption outside of programs/regs/payments, diversity of operations and the need for that to feed our growing population. And tools made widely available to farmers - increasingly the industry is having to consider more than just the practices we can implement to address WQ.

Ken Staver (in chat): Can you post those publications please. Thanks

Suzanne Shea (in chat): Start with this publication:https://www.nrcs.usda.gov/resources/education-and-teaching-materials/soil-biology-primer

Caitlin Grady (in chat): here are the modeling publications (from newest to oldest): https://doi.org/10.1002/jeq2.70142; https://iopscience.iop.org/article/10.1088/1748-9326/ad5d0b/meta; https://pubs.acs.org/doi/full/10.1021/acs.est.2c07391

Suzanne Shea (in chat): This approach has been working worldwide for over 40 years and successfully on over 6 million acres to date.

Eric Hughes: Marel, I know we've had discussions about this in the past. Do you want to come on and elaborate at all on what you have in the chat here?

Marel King: Sure. I am not sure I have any concrete ideas, but we heard at Bay in the Balance that the economics of farming, business planning, and farm management is so crucial to getting a farmer in a position to implement conservation. So, that's just one example of where we can pull a string that is not directly tied to a BMP but, down the line through the system it can have an influence on conservation. That's just one example. Obviously, there are potentially many more if we get into this analysis.

Eric Hughes: One of the things I wanted to make sure I mentioned is the question of what would this look like if it were something that the partnership through the AgWG were to explore further? I think it would probably be challenging to do this work, split up two hours once a month, and it would probably dominate a lot of our time. But, [maybe we could] reconvene in person and really

dive in on this. I wouldn't want to do this if this is not something where there's interest from members. Generally it sounds like this is of interest to some folks. So, nothing concrete at this stage, but I want to get a very early pulse check. Is this something that we feel might be worthwhile exploring? Say we meet in the fall or winter over several hours and try to dive in on something like this. Is that something that would potentially be of interest?
Nick Hepfl: I do think it could be valuable if framed into a specific issue and with guidance. None of us are professionals at this type of thinking structure. We all have our unique expertise and understanding, but I think if it were framed as a specific issue we had to tackle and look at from this approach, I think it could be beneficial. You can't just look at it at the scale Caitlin and the team looked at it. I just don't think that we would be equipped to do that, but if you had a specific issue or a problem, I think that could be really beneficial.
Elizabeth Hoffman (in chat): Agree with Nick. Would help to frame the question(s) we are answering as a group through that discussion.
Ken Staver: Your earlier conversation about E3 Scenarios, let's say we aren't doing enough. I think if you put the cost part comes in and the federal/state funding and you look at the E3 scenarios and say, well, this is what we need to do to get to our goals. Some of these levers is money. That's what everybody was saying at Bay in the Balance- it's about economics. So, a lot of this is not the farmers that you need to get buy in from. It's the public that needs to put in tax dollars to support these programs that are putting a lot of these BMPs on the ground. So, in Maryland, it's our Cover Crop Program, which some people like and some people don't like just because of the subsidies. But with the CREP program and all the investment we have in technical support, we are always hearing we need more technical support. So, I think this kind of analysis is good. But, I have a feeling part of the outcome is going to be that to get to be where we need to be we have to get more buy-in from the general public to support these programs that aren't necessarily cost effective for farmers. So, I think it's a good idea as long as it's broad enough to look at the economics and the general public being involved in the solutions. I don't see how it's going to land anywhere else because that's where we're getting our heavy lifting from is a lot of public investment in either supporting practices on the ground or tax subsidies for no-till equipment or whatever. The public investment- making that bigger right now seems hard and like a heavy lift, but maybe through the current process you can articulate it a little bit more and isolate it a little bit more. I am overall supportive of it I guess is the long/short answer.
Suzanne Shea (in chat): Amen!!!! Public support. We all eat and need to help the farmers!
Eric Hughes: Ok, that's helpful. So, what I am thinking we do, Caitlin, Jenn, and Caroline, is that maybe the four of us can put our heads together and try to develop this idea a little bit further, see what the framing could be, and how that might look for a deep dive from the Workgroup.
Caitlin Grady: That sounds good. We can also revisit this because we have a lot on our plate in the next few months, so we can see how it evolves. Feel free to share thoughts with me later. If you want to email me, feel free to email me any time or reach out to Eric or Caroline if you didn't get a chance to weigh in today.

IV. Clean Water Goal Team Updates – Impact to AgWG

Lead: Eric Hughes, EPA

At the April 27th and May 18th Clean Water Goal Team meetings, Goal Team leadership shared updates on governance, structure, and management strategy development relevant to the Clean Water Goal and associated outcomes. Several discussion points have implications for the Agriculture Workgroup. Eric walked the group through what was discussed and the work that will be required of the AgWG to address forthcoming requests from the CWGT. In particular, Eric informed the group of the updates Clean Water Goal Team structure strawman, and discussed workgroup membership and management strategy development. Eric noted that it was requested for workgroups not currently following a 15-member (9 signatory, 6 at-large) model to

provide steps you would take to conform to the 15-member model. AgWG leadership proposed the following process to conform to this model structure:

- Candidates for 6 open positions would be current at-large members and those nominated during most recent call for nominations
- Signatory members would vote to fill 6 spots from the pool of nominees
- Others would be welcome to continue to participate as interested parties
- One at-large member from: academia, agribusiness/industry, conservation districts/TA providers, conservation/environmental NGOs, and USDA

Additionally, Eric noted that the CWGT asked source sector workgroups and Watershed Technical Workgroup to complete a worksheet answering key questions related to the Management Strategy for the Reducing Excess Nitrogen, Phosphorous, and Sediment outcome.

Actions:

1. AgWG leadership will continue to keep the AgWG informed of any updates related to membership structure. Members are encouraged to provide feedback on the potential method for conforming to the 9 signatory/ 6 at-large member structure, as outlined on slide 25 of the following presentation.
2. AgWG leadership will submit responses to the Clean Water Goal Team leadership regarding the Management Strategy Worksheet by June 2nd. Members interested in contributing to the Management Strategy development should reach out to Eric Hughes (Hughes.Eric@epa.gov) and Caroline Kleis (Kleis.Caroline@epa.gov).

V. Wrap-Up

Lead: Eric Hughes, EPA

Eric provided final updates before the meeting adjourned.

VI. Adjourn

Announcements

- **Agricultural Advisory Committee Meetings 2026**
  - The Agricultural Advisory Committee (AAC) has set their dates for quarterly meetings in 2026 (see below). Information will be posted on the AAC page as it becomes available: https://www.chesapeakebay.net/who/group/agricultural-advisory-committee
    - Last Meeting: 5/6 Virtual Meeting. Materials are available here.
    - 8/5 In-Person Meeting (location TBD)
    - 11/4 Virtual Meeting
- **Upcoming Conference Proposal Deadlines**
  - 2026 Potomac Conference: The Future of Water Supply – Speaker Submissions due Friday, May 15th
  - Chesapeake Watershed Forum - Session Proposals due Friday, May 29th
  - Capital Area Natural Resource Management Symposium – Abstract Submissions due Sunday, May 31st
- **Chesapeake Community Modeling Program: Chesapeake Community Research Symposium 2026**
  - The 2026 Chesapeake Community Research Symposium will take place from June 1st-3rd in Annapolis, Maryland at the Crowne Plaza Hotel. The theme of this year's symposium is "Chesapeake Bay Research and Restoration: Next Generation Tools for a Dynamic Future".
  - Our very own Caitlin Grady will be presenting! View the full agenda and register here.

- **2026 Mid-Atlantic Agroforestry Conference- Registration Open**
  - The 2026 Mid-Atlantic Agroforestry Conference will take place on June 4-5, 2026, in Pennsylvania Furnace, PA. The agenda will include farm/site tours, panel discussion, and resource guidance and statuses. Learn more and register for the conference here!

Next Meeting: Thursday, June 18th, 2026 from 10:00AM-12:00 PM

Attendees:
Caitlin Grady, GWU
Jenn Fetter, PSU
Eric Hughes, EPA
Caroline Kleis, CRC
Denise Uzupis, PDA
Jim Riddell, VA Cattlemen's Association
Tom Butler, EPA
Mark Dubin, VA Cooperative Extension
Emily Dekar, USC
Nick Hepfl, HRG
Ashley Lenig, USDA NRCS
Paul Bredwell, US Poultry & Egg Association
Jennifer Bratthaur, Team Ag
Grant Gulibon, PA Farm Bureau
Matt Monroe, WVDA
Tyler Trostle, PA DEP
Karl Blankenship, Bay Journal
Elizabeth Hoffman, MDA
Kendra Nicole Allison, PSU
Krista Crone, PA DEP
Seth Mullins, VA DCR
Greg Albrecht, NY Dept of Ag and Markets
Matt Royer, PSU
Patrick Thompson, Energy Works
Arianna Johns, VA DEQ
Jess Rigelman, J7 Consulting LLC/CBPO Contractor
Ashley Hullinger, PA DEP
Hunter Landis, VA DCR
Ken Staver, UMD Wye
Cassie Davis, NYS DEC
Clint Gill, DDA
Kate Bresaw, PA DEP
Carlington Wallace, ICPRB
Jenna Schueler, CBF
Marel King, CBC
Suzanne Shea, Old Sword Farm
Vivian Dickson, USDA NRCS
Adam Willis, The Banner
Leah Martino, EPA
Scott Heidel, PA DEP
Suzanne Trevena, EPA