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Agriculture Workgroup (AgWG)
Meeting Minutes
October 17th, 2024
10:00 AM – 12:00 PM
Meeting Materials

Summary of Actions and Decisions

Decision: The AgWG approved the minutes from the September AgWG meeting.

Action: Continue to fill out the Menti survey questions, including those we did not get to during the meeting. Please send any additional feedback on the proposed plan for future AgWG meetings to Eric Hughes (hughes.eric@epa.gov) and Caroline Kleis (kleis.caroline@epa.gov).

Action: Please read through the call for nominations distributed via email and submit all nominations to Caroline Kleis (kleis.caroline@epa.gov) and Eric Hughes (hughes.eric@epa.gov).

Intro & Announcements

10:00 **Welcome, roll call, review meeting minutes – 5 minutes**
Kathy Brasier, AgWG Chair

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

Innovation

10:05 **Improving nutrient management recommendations: the "Zero N" Project – 40 minutes (presentation and discussion)**
Hunter Frame, Virginia Tech; Kristen Hughes Evans, Sustainable Chesapeake

Building on progress farmers and conservation partners have made in expanding the adoption of cover crops and no-till, practices that improve soil health and soil organic matter, Chesapeake Bay area land grant university nutrient management specialists are launching a regional effort to incorporate nutrient contributions from cover cropping systems and soil organic matter into nutrient recommendations, especially for corn. This effort builds on work led by Charlie White (Penn State University) with the goal of improving nutrient management recommendations. If successful this project will increase farm profits, improve water quality, and reduce greenhouse gas emissions from cropping systems throughout the Chesapeake Bay region.

Discussion
Ruth Cassilly (in chat): Please explain what the different colored bars represent.

Hunter Frame: I think the gray bar is non-irrigated, the blue bar is full irrigation, and the pink bar is environmentally forecasted irrigation. We had soil moisture sensors, and we irrigated based off of soil volumetric moisture content.

Olivia Devereux: I have a couple of questions. The first is you had mentioned there were unintended consequences related to the DCR cover crop program, and I am wondering what those were.

Hunter Frame: When I said unintended consequences, I was referring to, because it's lucrative for rye, they are paying $90 an acre, and it has substantially decreased the amount of wheat acres we have in the state. It has hurt the wheat acres, and I think we aren't getting the biomass production. In Virginia, the cutoff for spraying is March 15th. So, a lot are planting rye, March 16th they are going in and spraying it. If you look at the biomass accumulation, yes, it is tying up nitrogen through the fall and winter months, but it's not tying up a lot of nitrogen. When I say a lot, you may only be getting 20-30 pounds of nitrogen uptake during that period. The CN ratio of rye by mid-March is still fairly low, so you haven't really seen that carbon penalty for immobilization to take place. So those nutrients are going to be released pretty rapidly. The goal of the program is to sequester nutrients and keep them tied up, so they don't enter the Bay. I don't know if that's achieving that with the cut off dates we have now in Virginia. It's very profitable for our farmers to be a part of that. Not that that's a bad thing, we have rapid adoption, but there are other benefits from the cover crops, in Virginia, that are unrealized instead of just a cost share.

Olivia Devereux: I think the environmental benefits are kind of the focus. I do know that issue about decreasing wheat acres has been a concern in some other states as they see pickup in cover crops. I think in Maryland, at least for planting, I don't know about kill dates, but for plant dates, they are flexible depending on the weather. There's an exception in the law or something. I'm not clear on the details, someone like Elizabeth would know more, but I know that. Is there not an exception for kill date based on weather anticipated following crop plant date?

Hunter Frame: I don't know all the technicalities. From my understanding, in order to get the $90 for rye, you have to wait until after March 15th. They offer an additional $10 per acre if you wait until May 1st, I think.

Amanda Barber (in chat): New York already has comprehensive guidelines for nitrogen that account for yield, soil drainage, soil N, residual N, cover crop and organic N, etc. http://nmsp.cals.cornell.edu/publications/extension/Ndoc2023.pdf See also http://nmsp.cals.cornell.edu/publications/extension/AdaptiveNitrogenManagement2023.pdf

Olivia Devereux: Ok. My other question is, you talk about adjusting the nutrient applications with better nutrient use efficiency, and the higher yields that we're getting that we didn't get 30 years ago or whenever the recommendations were first made, and people talk about atmospheric deposition and how that affects it, too. There are all kinds of discussion about that, and the goal is to put on enough fertilizer to get the yields you want while ensuring that you don't get the runoff that hurts the environment, and I get that. But, the focus is all on maximizing yield. Was there any conversation about maximizing profit for the farmer, even if it means lowering the yield? If you put on less nutrients, which costs money, you might get a lower yield, but you're also saving money. An ag economist would look at it and say, well, you've either made the same profit or more profit, even though your yields are lower, which I get from an ego perspective that could hurt, but it would have a benefit for the environment. You're also making more money and potentially less work for the farmer. When you interact with industry or farmers, does that ever come up?

Hunter Frame: It comes up quite a bit, especially with our more progressive farmers. For me, if you look at those cotton charts, a lot of times the legume mix is not numerically as high as maybe the highest yields at the site, but the academic in me says the statistics say there is no difference there. So, profitability is a big component. One of the things I show at our meetings, especially with these manure covers and green manures, is the economics of what they actually bring to the table in terms of what does it cost to seed the cover crop and the value of the nutrients versus what you are saving in terms of not applying nutrients. The whole system approach is what we are going for. Yes, farmers are human, so they take pride in having high yields. Yes, you can save money, but you still have to be profitable. These systems are very profitable. Right now, nitrogen is still fairly cheap. I think it's around 50-60 cents. If we go back to a dollar, a dollar twenty, then these systems look even better to a farmer in terms of profitability. I talk about profitability a lot and the value of using these covers in my extension talks.

Nick Hepfl: I've used this tool in the past and have done similar things to what you are doing now. I want to provide a point to look at. Whenever I use this tool up in the higher elevations, or Western Pennsylvania towards New York, where you have a very sandy soil but the organic matter may be higher, I found this tool really struggled. What you have is an accumulation of organic matter over time because the climate is cooler, but this tool would suggest that you are going to burn more organic matter to sandy soil then what you would. It doesn't really line up. What you get is a result that, basically, on a very high sand soil and high organic matter soil, you need no nitrogen. That's what this tool suggests. So, I want you to be careful whenever you are looking at these areas. You are evaluating those clay contents, but whenever you get up into the higher elevations or northern latitudes, you'll find that this tool comes a little out of whack with what it's suggesting.

Hunter Frame: I am anticipating that the farther we get away from where Dr. White has done a lot of this work, the more out of whack or out of alignment we are going to get. We've done some predictive nitrogen work using NDVI and cotton, and we started with Clemson's algorithm that they developed, since that was the closest cotton state to us. What we found was our cotton grows much slower because we are farther north, and we are cooler. I anticipate that these models are going to have to be more regional. Even maybe state-wide. They're going to have to be regional in nature. I anticipate we're going to find that the farther you get away from where the initial research was done, the more adjustments we're going to have to make to it.

Kristen Hughes Evans (in chat): My understanding is that the Cornell NM team sees opportunities to improve on their existing tools. Quirine Ketterings is our Cornell University lead on this project.

Eric Hughes: Amanda, I see you put a few things in the chat, and I know Greg sent us an email before the call providing some input. I didn't know if you wanted to speak a little more to that, or if you said what you wanted to say in the chat.

Amanda Barber: I just definitely wanted to make sure that we were acknowledging the significant research and tools we already have in New York, and we certainly don't want to reinvent the wheel.

Dave Graybill (in chat): Can you explain how this information will be incorporated into the model?

Eric Hughes: Thank you for that. Dave, in the chat you asked, "can you explain how this information will be incorporated into the model". That might be a lengthier discussion, here. I don't know if we have the information to address that point. Olivia, thoughts at this stage?

Olivia Devereux: Was that the purpose of this talk, to bring it up for a decision? I don't think that's been discussed at all. The Ag modeling team has been talking about looking at yields and crop

nutrient applications, but I don't think this is related to what goes on in the model. I think Dr. Frame and his colleagues are talking about what happens in working directly with farmers, not modeling runoff at a large scale like we do in the model. They're looking at farm specific and we're basically county. We have seen an increase in chemical fertilizer over time, which is really clear from multiple sources of data that the use of chemical fertilizer has increased. So, it tracks with what Dr. Frame has discussed about what's happening and maybe what needs to be happening in return.

Clint Gill: This is more of a technical question. I'm in Delaware and a little unfamiliar with cotton. When you terminate the cover crop, is it then incorporated?

Hunter Frame: No. I am an outcast in cotton circles because I am a conservation tillage person. It is left on the surface. We do strip till, that is one difference than no till, but everything is left on the soil surface.

Ken Staver: On the rye- the reason the water quality programs have focused on rye is because of eliminating the nitrate leeching part of it. 20-30 pounds is what we are stuck with even with good nutrient management. You can use legumes and you're still going to see 20-30 pounds or probably more in the fall of nitrate in the soil. So, the residual nitrate after crop harvest is, I think, what we have to deal with on a water quality standpoint. You sort of downplayed the 20-30 pounds in rye, but that's basically enough nitrate to run sort of average annual recharge volumes up to 10 ppm, so that's not an insignificant amount of nitrogen from a water quality standpoint. The winter cereals are the best at scavenging it in the fall, going into what is our most active period of loss. So, I think legume cover crops are great if we can displace fertilizer N use, that's great for carbon footprint and that kind of stuff, but that doesn't necessarily solve our nitrate leaching problem. I think if you look back to the old organic farm operation up in Pennsylvania and the pioneers in organic ag, Rodale plot studies, they had straight organic systems using hairy vetch for N and they could get the yields. They could have the same yields as conventional, but the problem they couldn't solve was the nitrate leaching problem with legume covers for supplying N for corn. I think it's great. The economics to get farmers to do it, that's another challenge, but what we're really after from a Bay perspective is the nitrate leeching side of it. So, I don't think legume cover crops automatically solve that problem.

Hunter Frame: I agree with you. They don't solve that problem, and I also agree that dealing with groundwater nitrate, that's where we need the small grains in there. What I was talking about in terms of the 20-30 pounds we see in soils, you are right, in a normal year we can have more if it's a dry summer and we've applied and it's a drought situation. You are also right about legumes. They don't solve the water quality problem. When we started this work with legumes back in 2017 with the Virginia NRCS, I had a conversation with Chris Lawrence, especially with cotton, that legumes could present an even bigger problem. If you make 200 pounds of nitrogen with a legume cover crop, but cotton only takes up 160-170 pounds, then you have all that excess nitrogen that's there potentially to leech, because it's still nitrate. So, I agree with you that from the water quality and leeching problem, legumes don't necessarily solve that issue.

Eric Hughes: Thank you, Dr. Frame and Kristen. Hopefully there were some good pieces you gleaned from this discussion here.

CBP Assignments

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10:45 **Planning for the Future of the Agriculture Workgroup – 65 minutes (presentation and discussion)**

Kathy Brasier, AgWG Chair; Eric Hughes, AgWG Coordinator; Jeremy Hanson, WQGIT Coordinator

As the Agriculture Workgroup has discussed in recent months, the Chesapeake Bay program will experience change in the year 2025 (and beyond). The opportunity is ripe for AgWG members and participants to, over the course of several months, identify a plan for the future of the group. What topics should the AgWG explore? What deliverables should the group produce? Kathy introduced an effort, spanning several months, to outline a plan for the future of the AgWG. Eric and Jeremy provided background information to help provide context for the discussion, and time was given for AgWG participants to share relevant feedback via a Mentimeter poll.

Discussion

Clint Gill: Early on you were talking about half of the meeting having to do with the "vegetables" kind of thing, like the CESR report- stuff that we will actually have to address. I know it's necessary, but I do like the presentations that we had earlier today and just getting into researchers or practitioners on the ground. There is going to come a time where we are going to make a flurry of decisions, and they're going to be all kind of "vegetables" meetings, but it's nice when we have a break and we don't have decisions every time, where we can get some input from elsewhere that we don't normally get.

Kathy Brasier: The intention that we have going forward is that for the next few months while we're having these conversations about planning, roughly half the meeting will be more of our traditional agenda with informational presentations and maybe decisions, then half of the meeting is planning. So, we want to keep that balance going forward. But, if there's ways in which that balance doesn't feel like it's working, definitely keep that in front of us.

Clint Gill: Thank you, I appreciate that. That's great.

Amanda Barber: Is there anything more from the Beyond 2025 perspective that we should be thinking about to frame our responses to these questions?

Kathy Brasier: I'll invite everyone else who's worked on that to jump in. When we talk about it in a couple of weeks, we are going to go over particularly the small workgroup conversations where more detail is in there about ag focused projects and goals. So, if you have the chance to look that over, that would be really great between now and our next couple of meetings.

Eric Hughes: We do need to be thinking about Beyond 2025 as we do this, and that's why it's one of the items we'll be discussing in the coming months. The tricky thing with Beyond 2025, at this point, is there's still a lot that we don't know and in the absence of information, what implementation of the recommendations is going to look like. I think we can take a look at what's out there already, but the hope is in the coming months we will know a little bit more about this and what this will mean for us. Then, in December, we can do a deeper dive into this and really talk more about how this could shape the work that we do in the coming years. I hope that helps a little bit.

Ken Staver: One of the things I've been trying to find lately is a clear-cut quantitative assessment of why we are going to fall short in 2025. We talk about what we're going to do and it's like, well, there was a plan to meet the goal, and we're not going to meet it. Why aren't we going to meet it? Where is the deficiency on the ag side of it? I had to almost chuckle looking at the first presentation about all these other work groups. There's a land use workgroup, and there were like

10,000 acres of impervious surface added in the Bay watershed every year. If the land use workgroup had issues to deal with, like if they had their TMDL and weren't supposed to increase impervious surface and they had 10,000 a year, then we wouldn't be in the hot seat all the time. It feels like because the ag nutrient thing and the TMDL is the key thing on destroying the bay, that's what the message sort of is, right? I think we have to push it up the food chain a bit and say, look, we want a clear explanation of why it is we aren't going to meet our 2025 goal in ag. Is it a lack of implementation? Where is it? Is it everywhere? Here? At the end of the day, the TMDL goals are why we are all here, right? That's the key thing on the Chesapeake Bay restoration, so we've got to get real clarity about where we are on the ag side of that.

Kathy Brasier: Thanks, Ken. Kristen?

Kristen Hughes Evans: I'm so excited about the potential for thinking differently. Let me just say, I view this group as an incredible brain trust- really talented, smart people, who have their hearts in the right place, and who want to do the right thing. It is a really incredible opportunity, and when we think about where the gaps are, I think, well, if this problem were easy, it could have been solved already. If the solutions were profitable, they would have been done already by the private sector. I think we have some hard decisions to make, in some cases where we didn't necessarily want to be in this place. We were hoping the private sector and farm economics would take care of it, but it hasn't. So, this group is just incredibly positioned to try to guide partners on how to solve the most difficult problems we're facing. I feel like doing this over a webinar would be really difficult. What I would love to do is to see this group getting together in person with professional facilitators to really maximize the input of the time that we're contributing to this and try to get at how we do what. What is this group's best recommendations for how to tackle the most difficult problems, but also what is the group's thoughts on what's working well and that we could be doing more of. So, there's opportunities all around to really leverage the expertise in the agriculture and kind of take us to the next level.

Amanda Barber (in chat): Thank you - it seems that in part we are trying to justify ourselves "beyond 2025" before we really know what beyond 2025 is going to look like.

Clint Gill (in chat): Ken's question is a bigger one that just this workgroup, but its an excellent point.

Elizabeth Hoffman (in chat): I would echo Ken's notes by adding, when we try to explore how to adjust WIP III scenarios to see where we could "target" and move the needle more, for MD, we are hitting cutoff in some major BMP areas. It's challenging to understand what tools we have when BMPs are becoming not enough.

Kathy Brasier: I really appreciate that. We can talk more about the in-person and the balance of in-person and online is something we really struggled with. So, I'm happy to talk more about how to make this works given time restrictions and travel restrictions. Professional facilitators, I would love that. We have looked at some options. I don't know if we have a path forward for that right now but if anyone has suggestions, I will happily take them. Feel free to reach out to Eric and/or me with your thoughts or ideas about how to make this work the best. We want this process to work and produce a plan that we're all proud of and can move forward, so definitely give us some feedback.

Kristen Hughes Evans (in chat): I would be happy to try to make the professional facilitation connection for in-person events.

Elizabeth Hoffman (in chat): Also to the list of "vegetable" topics - CESR is a good place to start. Some states and entities outside of CBPO have been running with their solutions to address CESR

but that has been challenging to balance with it not being discussed in groups like this that would actually have to do and account for that work.

Clint Gill (in chat): Agree with Elizabeth. Including groundwater lag time research from USGS on costal plains soils should also be included on any discussions about why BMPs don't seem as effective as we anticipated. I know that's as small portion of the watershed, but its all of mine.

Kathy Boomer: I was going to echo Kristen's comments. Thank you for that opportunity.

Ruth Cassilly: I will echo Kristen's comments as well. That's not why I had my hand up, but her comments were excellent. I had my hand up to respond to Ken. I just wanted to say that I don't quite agree that there hasn't been any meaningful research done into why the ag load continues to increase despite forty years of implementing increasing implementation on the part of the ag community for BMPs. I think we have a lot of research on the part of USGS including others here such as Robert Sabo and Caitlin Grady. There's been nutrient use efficiency and fertilizer surplus studies done, in addition to looking at CAST and seeing that the major reason why the loads are increasing is fertilizer use.

Ken Staver: I have to jump in there. A lot of them are using CAST data.

Ruth Cassilly: Not all of them. They're using multiple streams of data for that. Ken made an important point. So, maybe where we need to start is putting that information together and getting a good consensus and summary of that information that exists and presenting that first, before we begin these conversations, including animal population data as well for the watershed. So, I'd be happy to help do that, but I do think that's an important place to start.

Kathy Brasier: Thank you, Ruth. Jim?

Jim Riddell: I agree with the young lady that just spoke. There is a lot of information out there, especially regional from different states and why we are where we are and in what sectors, and there's a whole lot of information that's there. An area that I'm hoping we will address more, and we've addressed it somewhat in the last year or two, is the issue of stormwater and climate change. The reason this comes up is, I know we didn't have quite a hurricane on the eastern seaboard recently, but in Southwest Virginia and in Tennessee and North Carolina, it wiped out many of the streams and took out the fencing, and it caused all kinds of havoc. With climate change expectations, we're going to expect more of this, and we need to be prepared. How do we deal with this in the realm of the Chesapeake Bay programs and expectations and our goals, WIPs, and so forth. The second part I wanted to say is, and I've seen evidence of it is, we've looked at some of the verification models from various states on different sectors and the model is important, and we measure what's important as we work towards these goals. The Virginia Cattlemen Association, which I represent, sees the need to update and examine certain BMP lifespan numbers that we are using at this current time. They're inaccurate. They're old. They've been there a while, and we need to examine especially things like the fencing 10-year lifespan. What's the issue with that? Well, every time a fence hits 10 years, the reductions in nitrogen or phosphorous from that practice goes away in the model. So, we've got real issues with that. Storm water climate is a big issue in the future, but we also need to, as a part of this group, provide real good information, research, data. As a former Virginia Tech faculty, there's data out there, and we need to do a better job of providing lifespan use for some of the BMPs.

Kathy Brasier: Thanks, Jim. That is a perfect segue to our Menti questions. We have two main questions that we want to focus on. The two questions are what do we want to accomplish and what are the topics that we most want to focus on? We're going with the Menti as a way to hear from everybody. You can put in multiple comments, and we can capture those for our notetaking

and reflection over the next month, before we come back again in November. We'll have lots of opportunity to come back and add, revise, and supplement this, but we wanted to get first blush reactions to what we're talking about, where we fit in the structure, potential issues coming down the pike from Beyond 2025 and CESR. The plan that we have is to take the conversation from today, both the verbal comments, comments in the chat, and responses to these two Menti questions, and try to craft them into a report that's a starting place for our conversation in November. We also want to start to catalyze the conversation that we can have incrementally over the next few months. For November, we will be looking at CESR, so I think our conversation today should flow pretty directly into that and help us think about the top priority things that we want to talk about, or the framing of what we want to talk about over the next couple of months.

Kathy Boomer (in chat): I also appreciate Ken's and Kristen's comments - and hope that the Ag Workgroup provides leadership in facilitating conversations focused on exploring and acknowledging uncertainties and challenges - a bit of a different mindset (requiring a unique facilitation process) than more typical CBP workshops designed around listening to academic experts. I have no doubt such discussions would reveal critical expertise and insights from industry experts and producers that is essential to advancing our goals.

Jim Riddell (in chat): Continue to examine bmp verification methods and review lifespan standards used in model. Example…stream fencing lifespan in model- 10 years-all benefit deleted at that time. Also more input in future on climate change-storm water management on CB program

Action: Continue to fill out the Menti survey questions, including those we did not get to during the meeting. Please send any additional feedback on the proposed plan for future AgWG meetings to Eric Hughes (hughes.eric@epa.gov) and Caroline Kleis (kleis.caroline@epa.gov).

Wrap-up

11:50 **New Business, Announcements & Updates – 10 minutes**

- **Agricultural Modeling Team**
  - No verbal update was given this month. Please see the AMT October meeting materials for additional information on AMT activities.
- **2025-2026 At-Large Membership**
  - The terms of 6 at-large members expire in the coming months
  - Call for nominations will be distributed after the October AgWG meeting
  - Self-nominations and renomination of members with expiring terms are accepted
  - Please submit all nominations to Caroline Kleis (kleis.caroline@epa.gov) and Eric Hughes (hughes.eric@epa.gov)
    - Include nominee name, affiliation, email address, and short resume, C.V., or bio

  Action: Please read through the call for nominations distributed via email and submit all nominations to Caroline Kleis (kleis.caroline@epa.gov) and Eric Hughes (hughes.eric@epa.gov).
- **New! Maryland Whole Watershed RFP**

  Discussion

Kathy Boomer: Maryland has released their Whole Watershed RFP. It focuses mostly on implementation. They are planning to invest significant money towards implementing BMPs in five watersheds varying in land cover/ land use. So, two will be in ag watersheds and one will be in a peri-urban ag watershed. I'm excited because they've also allotted money for monitoring and measurement. The Foundation for Food and Agriculture Research is going to match some of that. It's a substantial amount of investment for monitoring. So, be on the lookout for that RFP. I think it's a really exciting opportunity to address some of the needs that we've been discussing here and really start to dig at when and where best management practices can provide the targeted benefits.

Elizabeth Hoffman (in chat): The Whole Watershed website now has a link to the released RFP and associated application. The email account for sending in applications, and the Google form for submitting questions to the SMT.

- **New! Conservation Drainage Field Day in Delaware**

  Discussion

  Kathy Boomer: The other announcement is partly a plea for more focus on agricultural water management and more attention to both irrigation and drainage. There's a conservation drainage farm day that will be held in Delaware in December, being led by Midshore River Keepers and Allegheny Services. It's a great opportunity to see these practices put in place and also to gain some perspective on how pervasive these practices are going in across our landscape.

  Kathy Boomer (in chat): Conservation Drainage Field Day in DE: Thursday, 12/5 - great opportunity to understand conventional vs conservation tile drainage (and to realize how much of this mostly conventional replumbing is changing land-water connections throughout the Bay watershed and beyond). Contact: Chad Klotzbach (Allegheny Services),

  chad@alleghanyfs.com

- **Clean Water State Revolving Fund (CWSRF) Webinar**
  - Please join the U.S. Environmental Protection Agency (EPA) for an overview of how the Clean Water State Revolving Fund (CWSRF) can be used to fund the implementation of agricultural best management practices (BMPs). State CWSRF programs can provide low-interest loans and grants to farmers, conservation districts and others for projects that reduce runoff, enhance soil health, and manage waste more effectively in cropland and animal feeding operations. After an overview of CWSRF program funding for agricultural BMPs, the Washington Department of Ecology will share how their CWSRF program finances BMPs, and the Spokane Conservation District will describe how they have used the CWSRF for their Farmed Smart Certification and Direct Seed Loan Implementation Program. Register here.
- **Request for Proposals (RFP): NFWF Innovative Nutrient and Sediment Reduction (INSR) Grants**
  - Proposals for NFWF INSR Grants are due at noon on November 5, 2024.

    Consultation with NFWF program staff is encouraged and can be scheduled through this link. For more information and to view the RFP, visit NFWF's website. Contact Jake Reilly (jake.reilly@nfwf.org) or Tori Sullens (tori.sullens@nfwf.org) with additional questions.

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- **Maryland Water Monitoring Council Annual Conference**
  - MWMC's 30th annual conference will take place at the Maritime Conference Center on November 21, 2024. The theme for this one-day conference is "MWMC @30: Celebrating Successes and Tackling Emerging Challenges". Registration information to follow.
- **Other Announcements?**
  - Send to Caroline Kleis (Kleis.Caroline@epa.gov) for inclusion in "Recap" email.

12:00 **Review of Action and Decision Items; Adjourn**

Next Meeting: Thursday, November 21st, 2024: 10:00AM-12:00PM (Virtual)

Participants

Eric Hughes, EPA
Caroline Kleis, CRC
Kathy Brasier, PSU
Caitlin Grady, GWU
RO Britt, Smithfield Foods
David Kindig
Amanda Barber, NY Cortland County SWCD
Dave Graybill, Farm Bureau
Emily Dekar, USC
Nick Hepfl, HRG
Cindy Shreve, WVCA
Bailey Robertory, UMCES/DNR
Dave Montali, Tetra Tech/WV/MWG
Hunter Frame, VA Tech
Karl Blankenship, Bay Journal
Denise Coleman, NRCS
Carlington Wallace,
Jeff Sweeney, EPA
Seth Mullins, VA DCR
Nicholas Moody, VA DCR
Emily Heller, EPA
Nicholas Santoro, USGS PAWSC
Jim Riddell, VA Cattleman Association
Tom Butler, EPA
Clint Gill, DDA
Elizabeth Hoffman, MDA
Olivia Devereux, Devereux Consulting/CBPO
Hilary Dozier, USGS PAWSC
Hunter Landis, VA DCR
Natalie Schmer, USGS PAWSC
Jenna Schueler, CBF
Auston Smith, EPA
Tyler Trostle, PA DEP
Kristen Hughes Evans, Sustainable Chesapeake
Paul Bredwell, US Poultry and Egg Association
Robbie Coville, PA DCNR Bureau of Forestry
Natasha Rathlev, Sustainable Chesapeake
Jeremy Daubert, VT
James Colgin, USGS PAWSC
Jeremy Hanson, CRC
Patrick Thompson, EnergyWorks Group
Tyler Groh, PSU
Bo Williams, EPA
Matt Royer, PSU
Mark Dubin, UMD/CBPO
Ruth Casilly, UMD/CBPO
Leah Martino, EPA
Marel King, CBC
Ken Staver, UMD-Wye
Adrienne Kotula, CBC
Jackie Pickford, USGS
Kate Bresaw, PA DEP
Sara Ramotnik, NWF
Kathy Boomer, Foundation for Food and Agriculture Research

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Acronym List

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