Agriculture Workgroup (AgWG)

Face-to-Face Meeting December 17th 9:00 AM – 4:00 PM Call Summary

Meeting materials: http://www.chesapeakebay.net/calendar/event/22593/

Action and Decision Items:

ACTION: Mark Dubin, Frank Coale, and Lindsey Gordon will draft and distribute the job description for the AgWG co-coordinator position to the AgWG. Candidates and/or nominations for the position should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov).

DECISION: The AgWG approved the proposed at-large membership.

ACTION: The AgWG will form an ad hoc group working with Mark Dubin and Bill Angstadt, in collaboration with the AMS, to assist in identifying some of the issues that are relevant to the AgWG regarding the Phase 6.0 Beta model that are being captured elsewhere in the CBP.

DECISION: The AgWG reached consensus to move forward with the AMS proposed timeline for the review of Phase 6.0 Beta model and scenario builder.

ACTION: The AMS will begin collecting comments and feedback on the Phase 6.0 beta model from the AgWG, following an introductory webinar in January, 2016. All comments and feedback on the model following the webinar should be directed to Lindsey Gordon (Gordon.lindsey@epa.gov). The open period for receiving comments and feedback will close on March 1, 2016.

DECISION: The AgWG reached consensus to approve of the work by the NMTF thus far, advocating for a partnership approach to finalizing the crosswalk report. The AgWG will inform the WQGIT that the AgWG will proceed with the NMTF, who will gather more information and documentation from the jurisdictions throughout December.

ACTION: The NMTF will reach out to all jurisdictions to request acreage values being reported for each nutrient management tier.

ACTION: The AgWG will prioritize including a discussion with the BMP panel chairs in their regularly scheduled 2016 meetings in order to facilitate open discussion and understanding of the progress being made on the panel recommendations. The AgWG will also discuss with the panel chairs the possibility of prioritizing certain elements of panel charges in order to ensure the panel will meet the deadlines for inclusion in the model.

ACTION: The AgWG should review the current list of "Tier 3" BMPs (posted to the December AgWG meeting page) by January 2016 for workgroup prioritization and budget planning in April 2016. Prioritized lists of BMP panels should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov).

ACTION: The workgroup co-chairs and Mark Dubin will work with Jeremy Hanson, AWMS coordinator, to ensure the review of the AWMS panel report follows according to the BMP review protocol.

ACTION: The AgWG should consider methodologies to incorporate the Phase 6.0 ag land uses with the high resolution acreages being calculating and reconciled with the age census. Suggestions for these methodologies should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov), who will coordinate with the LUWG to facilitate further discussion between the two workgroups.

ACTION: The AgWG should read and review the Phase 6.0 Beta Ag Land Use Loading Ratio Report (posted to the December AgWG meeting page) in order for the workgroup to approve and review it during the January 2016 meeting.

ACTION: The workgroup co-chairs will draft a job description for the position of AgWG chair and vice-chair, and will post and distribute to the AgWG. Nominations are open to anyone seeking to become vice chair and chair. Nominations should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov).

DECISION: The AgWG will vote on the nominations for workgroup chair and vice-chair during the February 2016 meeting.

ACTION: The AgWG approved the revised proposed 2016 meeting calendar.

AgWG Pre-Meeting Workshop for New AgWG Participants

9:00 Introduction to the AgWG and Chesapeake Bay Program Mark Dubin, AgWG Coordinator

- Kristen Saacke Blunk introduced the group and new membership, and briefed everyone on the current staff supporting the AgWG and the co-chairs.
- Mark Dubin, AgWG Coordinator, gave an introduction to the AgWG and Bay Program.
- There was discussion surrounding consensus building, and the new governance protocol with a formally defined membership.

ACTION: There is a new position opening up as a co-coordinator for the AgWG funded through the EPA. Mark Dubin and Frank Coale will be sending out the job description to the AgWG. Candidates and/or nominations for the position should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov).

- Group discussed the BMP protocol where the research comes from, how panel reports are approved.
- Topics discussed include:
 - <u>CBP structure overview</u> (Note: The AgWG, a sector workgroup, falls under the Water Quality Goal Implementation Team).
 - AgWG structure, panels, subcommittees, and governance
 - Overview of Phase 6.0 expert panels and BMP evaluation process
 - Review of CBP BMP verification standards and timelines
 - Overview of existing Phase 5.3.2 modeling structure and the new Phase 6.0 development and agricultural sector modeling

AgWG Meeting Agenda

10:30 Welcome, introductions, review November meeting minutes

Workgroup Chairs

• November meeting minutes were approved.

10:40 Finalization of AgWG Governance Protocol and At-Large Membership

Workgroup Chairs

- The proposed at-large membership was approved by the AgWG.
- Lindsay Thompson nominated Lynne Hoot as her alternate.
- Paul Bredwell nominated Christian Richter as his alternate.

DECISION: The AgWG approved the proposed at-large membership. Motion by Chris Brosch, seconded by Tim Sexton.

11:00 Review of December WQGIT Meeting Actions and Decisions

Workgroup Chairs

- The Workgroup Co-Chairs and Mark Dubin briefed the workgroup on the relevant action and decision items resulting from the WQGIT's two-day face-to-face meeting on December 14 and 15.
- Lindsay Thompson: So with the new two-year milestone decision, after the Phase 5 panels, the next panels won't be incorporated in the model until 2019?
 - Dubin: Correct.
- Bill Angstadt: All of the expert panels we have currently are looking towards a 2018 progress run?
 - Dubin: Correct.
- Tim Sexton: When are we having a calibration of the Phase 6 model?
 - Dubin: Early 2017 will be the final version, but there will be calibrations throughout this
 year. If we want to add more BMPs after the final version is built, we'll have to wait for
 an opening to come up for the milestone.
- Jim Baird: But once implemented, you can retroactively add acres. And this is for all sectors?
 - Dubin: All sectors, correct.
 - Baird: So there's also a forecasting piece here.
 - Dubin: Right we'll have our two-year forecasting, and then longer-term forecasting out to 2025.
- Kelly Shenk: How does this affect refinements to data in the model?
 - Dubin: It affects that as well. It basically applies to everything. If an ag census comes out in the middle of a milestone period, we won't implement that data until the next open period.
 - Matt Johnston: So there's basically a lock down. We will give all the states our
 predictions over the next two years, and that's the rule of the road. We also predict
 their N and P for the next two years. Then two years later, we'll incorporate that new
 data, and re-run things.
- Thompson: So this would help with drastic changes based on the ag census?
 - Dubin: It would give additional time to prepare for it.
- Matt Johnston presented the Agriculture Modeling Subcommittee's proposed early 2016 timeline for the review of the Phase 6.0 Beta Model.
- John Rhoderick: This is the first beta, and ours and other workgroups will be reviewing this model. The AMS will work with all workgroups and try to fix as much as they can, providing a second beta in July. And then potentially another run in October.
- Angstadt: For the January 8th review, I would suggest for the non-modeling public that you put this into information that we can use. I think county is the right geographic scale, by crop is

important, but I'd also like to see outputs by acre. Secondly, I would suggest providing some charts to supplement that information.

- Johnston: Great points and we aren't going to hide any data, so it will be a big spreadsheet. But in the webinar I want to walk everyone through the spreadsheet and touch on all the points you mentioned here.
- O Angstadt: At the WQGIT, you talked about looking for fatal flaws, unanticipated outcomes, and those items where 'something smells wrong'. So I would suggest at some level that we need criteria of how you expect us to evaluate this. And the next point of evaluation is whether it's going to get fixed, so an opinion on whether it's something simple or complex. Perhaps we could rank these "fixes" on their complexity to clarify whether it's something that will get done.
- Kristen Saacke Blunk: I think that's at least partially captured in the development of a workplan for the AMS during the week of January 18th. Are you looking for language that's more explicit to the components you've just described?
- Angstadt: I think we also need to be realistic. If by March 30th, we don't have it in Beta Run 2, then there will just be too many issues to ever incorporate it into the model. There was also discussion at the WQGIT of the responsibility of each workgroup. I had asked Matt and Curt for a gap-analysis of what won't get done, and I think we need to wrestle with that. If the AMS can identify the things they won't get done, then we as a workgroup can figure out an alternative way to get them incorporated into the model.
- Johnston: I will help everyone understand what the AMS is focusing on. P is on the
 watershed model side, and they will be using the APLE model to include the soil P data
 layer in every county.
- Angstadt: Well then I think we need to discuss how we are going to get things incorporated into the model if it is an item that the AMS will not be covering. This is something that should be covered during the January 11th webinar.
 - Johnston: I can tell everyone what will be in the model, but there are too many things to predict what won't get incorporated into the model. I'll try my best, but I can't predict everything.
 - Chris Brosch: The Modeling WG has been discussing this, but the dissemination of that information to the Ag groups has not been very effective, so I think we need to work on a better line of communication with them. But I agree with Bill's point.
 - Angstadt: We want Scenario Builder, soil P history, land use for ag, nutrient targets, edge of field to edge of stream to the Bay, mineralization rates, land distribution, airshed model. Those are at least the pieces that we want to be able to review and evaluate in the model, and once we negotiate that, then it goes to AMS as a list of the things we as the AgWG will do, and may require task forces outside of that to accomplish.
 - Dubin: I would imagine the WQGIT will be asking for comments, so we should probably be proactive and establish a list of items.
 - Angstadt: Do we need a separate committee to deal with issues resolution so we don't bog down the AMS or the staff with answering inquiries and prioritizing them?
 - Rhoderick: I think that will likely come up in the early meetings when we discuss how we will proceed.
- Bill Angstadt suggested using a resolution management strategy.

- Comments from the AgWG to the AMS on the beta Phase 6.0 model will be send to Lindsey Gordon (Gordon.lindsey@epa.gov).
 - Mark Dubin suggested reviewing the comments during the AgWG meetings.
 - Angstadt: I would like to hear people's thoughts on creating an ad hoc group working with USGS to prioritize these items.
 - Tom Simpson: The AMS is a fairly narrow group, so I think Mark and Bill both asked if there needs to be a list of 'big deal' items that are being handled elsewhere in the CBP partnership.
 - Rhoderick: So maybe during this first meeting, Bill, you would like an update on all of the ancillary items that are being handled elsewhere in the CBP.
 - Angstadt: I was talking specifically to Gary's chart and those listed actions.
 - Saacke Blunk: And Matt could help us scope out some of those questions ahead of the webinar so we can adequately prepare.

ACTION: The AgWG will form an ad hoc group working with Mark Dubin and Bill Angstadt, in collaboration with the AMS, to assist in identifying some of the issues that are relevant to the AgWG regarding the Phase 6.0 Beta model that are being captured elsewhere in the CBP.

DECISION: The AgWG reached consensus to move forward with the AMS proposed timeline for the review of Phase 6.0 Beta model and scenario builder.

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11:20 Nutrient Management Task Force Update

Workgroup Chairs

- Kristen Saacke Blunk reviewed the Nutrient Management Task Force progress and the results of the discussion at the December 14-15 WQGIT meeting.
- Valerie Connelly: Does MD have a much stricter paperwork compliance than other states?
 - Lindsay Thompson: Yes, but keep in mind that all of this is going to change and we will all have more verification requirements starting in 2017-2018.
- Dubin: You also have to keep in mind what each state is reporting in terms of acres relative to their compliance numbers.
- Jason Keppler: Is there a way that we can go back and ask jurisdictions to estimate the amount
 of acreage that are affected by each one of these line items?
 - Shenk: Yes, and Jeff Sweeney sent an email out to the states asking for the acres they plan to report in each tier, correct?
 - Sweeney: All BMP data was due December 1st, but there was an extension on this BMP to this Friday, December 18th for specific acres associated with each tier in each state. So once we have the acres in nutrient management, we need to ask what each value is.
 - o Tim Sexton noted that he had not been contacted for these acreage values.
- Saacke Blunk: We were being encouraged to ask for acres under each tier, and I was inclined to hold back on that initially. But what happened at the WQGIT is important. And the Task Force would like to ask the AgWG to be an advocate for asking for time to work this through with the jurisdictions to get more information that would improve our opportunity to take a partnership approach in defining what this should look like for 2015. Jason has identified one area that needs to be addressed, in how we can provide enough information to the partnership. We also have some question marks where we need to work with the states to refine how we can help them be represented on this. And everywhere there is a 95% compliance rate, we probably

need to go back and ask for more understanding in how the jurisdiction reached that level of compliance.

- Brosch: It's not going to mean much to me to understand how many acres in PA are eligible, were planned, and are under compliance for a NM plan. What's useful for me is another column with percentage of land that's covered by a program.
- o Connelly: And does compliance mean the same thing in every state?
- Dubin: We are going in after the fact, asking programs to provide us with specific information. So we have to use whatever information we have available.

11:50 **EPA Proposed Schedule for Nutrient Management Compliance Rate Adjustments** Kelly Shenk/Jeff Sweeney

- Kelly Shenk presented on EPA's schedule for moving forward with the crosswalk in conjunction with the Nutrient Management Task Force.
- Tim Sexton: It would be helpful, if Jeff is making requests for additional information, if it could be sent to the person who developed the report.
- The Task Force is hoping for final narrative submissions and acreage information submitted to the Task Force by the end of December.
- Saacke Blunk: Does the Task Force need to go to the states to request the acres, or will Jeff be handling this request?
- Jeff Sweeney explained that after data is submitted to NEIEN, there is a back-and-forth with jurisdictions to clarify the data they submitted.
- Thompson: So if we're talking about treating states equally, but with variability in the programs and current QAPPs, I don't think you can talk about treating states equally. Like you said, most submissions are good, so worst case scenario, you don't want to over-credit Nutrient Management, but I think an equally important risk is under-crediting Nutrient Management. So I'm advocating that we move forward with gathering this information on the requested acres.
- Marel King: The goal is to come up with a consistent approach that can be applied to the process so we can develop whatever number is right for a particular state for a particular program.
- Saacke Blunk: Well said, Marel. It seems we have general consensus that the AgWG would like to let the WQGIT know that we are vested in continuing this partnership approach, and to gathering more information to ensure that we have all of the documentation that we think is necessary. We are also talking about getting a better sense of the universe of acres, but what Jeff is having reported is outside of this process, correct?
 - Shenk: Should the Task Force give jurisdictions a template to fill out?
 - Agreement that the Task Force should contact the jurisdictions to get the acreage under each tier for each state.
- Brosch: I would like to offer to present on what the DE program looks like, and how DE collects
 data at an upcoming AgWG meeting. I think the NMTF may not have been as well versed in the
 programs as the programs/leads themselves, so DE felt as though we were answering to a
 higher authority. If we could present our narrative at the AgWG, that would be useful from my
 perspective.
- Saacke Blunk: During our quarterly meetings, we could have each state highlight their own NM
 program. But also keep in mind that the crosswalk as a tool is very important for succinctly
 capturing the information that is specifically relevant to the CBP Partnership and EPA.

DECISION: The AgWG reached consensus to approve of the work by the NMTF thus far, advocating for a partnership approach to finalizing the crosswalk report. The AgWG will inform the WQGIT that the

AgWG will proceed with the NMTF, who will gather more information and documentation from the jurisdictions throughout December.

ACTION: The NMTF will reach out to all jurisdictions to request acreage values being reported for each nutrient management tier.

1:00 Phase 6.0 Panel Updates

Mark Dubin

- Mark Dubin provided updates on the progress made by the Phase 6.0 AgWG BMP Panels.
- John Rhoderick: Is the Cover Crops Panel going to delay their recommendations? We know the NMP will take a long time, but if they're working together then I'm wondering if the progress of one panel will influence the other's.
 - Dubin: They're already starting to work on their report, so I'm confident that they will get something completed.
- Tim Sexton: What happens if the panel gets bogged down and deadlines aren't met?
 - O Dubin: If a panel falls behind, the Bay Program will move forward with representing that BMP as best they can.
 - Sexton: Let's say they calibrate the model with a random efficiency because NM didn't finish in time. Does that mean we have to wait that two years before we see what the realistic change will be?
 - Dubin: Phase 5 will be locked down after the first quarter next year. Phase 6 is end of 2017-2018 before it's locked down.
- Bill Angstadt: I found the WQGIT discussion of which BMPs will make it into 6.0 to be concerning. There were issues raised about verification, historic data, etc. So I would like to put on the table that we need to think about, with what we know today, whether we should change/adapt/narrow the focus of any of the charges of these expert panels to ensure we can meet these March/April deadlines?
 - O Dubin: Bill, you make a good point. In Phase 5, we prioritized elements of the panel reports, so that is a fair option.
- Mark Dubin suggested having a meeting between the AgWG and BMP panel chairs to discuss whether the panels will modify their priorities for submitting their report to the beta model.
- Sexton: The Beta version we see will that be a true, simulated model run?
 - Dubin: Inputs and outputs, yes.

ACTION: The AgWG will prioritize including a discussion with the BMP panel chairs in their regularly scheduled 2016 meetings in order to facilitate open discussion and understanding of the progress being made on the panel recommendations. The AgWG will also discuss with the panel chairs the possibility of prioritizing certain elements of panel charges in order to ensure the panel will meet the deadlines for inclusion in the model.

1:15 Phase 6.0 Priority BMP Evaluations

Workgroup Chairs/Mark Dubin

- John Rhoderick briefed the Workgroup on the list of potential Tier 3 BMP panels that was developed in Spring, 2015.
- The AgWG should submit final suggestions for BMP panels and prioritization to Lindsey Gordon (Gordon.lindsey@epa.gov).
- January AgWG meeting: discussion of the BMP prioritization list.

ACTION: The AgWG should review the current list of "Tier 3" BMPs (posted to the December AgWG meeting page) by January 2016 for workgroup prioritization and budget planning in April 2016. Prioritized lists of BMP panels should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov).

1:45 Manure Treatment Technologies Panel Report

Jeremy Hanson

- Jeremy Hanson updated the workgroup on the Manure Treatment Technologies Panel and their report.
- Kristen Saacke Blunk asked about the Phase 5.3.2 components of the manure treatment technologies report. The AgWG had agreed during 2014 to sideline all 5.3.2 panel work in favor of 6.0 work.
- Angstadt: So in January 2016, you are going to come to the AgWG with a proposed manure treatment technology BMP?
 - Hanson: If it comes out in January, then we would have a webinar where we present it and start the 30 day comment period before we bring it to the WG for approval.
- Tim Sexton asked to have the webinar describing the report and the recommendations before comments are due.
 - Jeremy Hanson agreed that this is the current plan.
- Jeremy Hanson also noted that the AgWG will have to hold an open meeting in order to start the open comment period on the panel report.

1:50 Animal Waste Management Systems Panel/Wetlands Panel Update

Jeremy Hanson

- Jeremy Hanson updated the workgroup on the Animal Waste Management Systems Panel and Wetlands Panel.
- Bill Angstadt raised concern on the process of review and AgWG approval for the report. He
 suggested allowing the AgWG to review and approve the report before it is made public and
 open to feedback and comments. Jeremy Hanson explained that this is not how the current BMP
 protocol operates in the CBP Partnership, and that once the report is posted for the AgWG's
 review and approval, that it is already made open to the public at that time.

ACTION: The workgroup co-chairs and Mark Dubin will work with Jeremy Hanson, AWMS coordinator, to ensure the review of the AWMS panel report follows according to the BMP review protocol.

2:05 Acreage Adjustment Methodology

Fred Irani

- Fred Irani briefed the AgWG on the LUWG's methodology to adjust agriculture acres in the land use model, and asked for the AgWG's input on incorporating the Phase 6 ag land uses into the calculated ag acreages.
- Mark Dubin: Do you tend to see in your results that it always over-reports ag census acres as opposed to under-reports?
 - o Irani: I don't know specifically, but it's more of a problem if the numbers are overreported, because then we have to shoe-horn the acres back into the county.
- Rhoderick: When you say you're putting these acres back into Ag, what ag category are you dropping them into?
 - Response: It's just general land use of cropland versus pasture.
- Tim Sexton: The High res imagery that you have- to what extent do you have that coverage?
 - o Irani: Wall-to-wall for the watershed, gathered at 1 m and sampled up to 10 m.
- Keppler: Are you trying to incorporate local government's data in this at all?
 - Irani: Yes; we have a huge effort underway to incorporate local government's information through a process of review and coordination with local governments.
- Rhoderick: What if the high-res analysis comes up with more acres than is reported in the ag census?
- Sexton: I'm inclined to go with the high-res analysis. Seems more accurate to me.

- Lindsay Thompson suggested taking the high res data to determine the land use acreage, and then splitting up that acreage based on the % crop types as reported in the ag census.
- Hanson: When do you need a recommendation by?
 - o Irani: I don't know at this time, but certainly in the coming months.
- Jim Cropper: Sometimes pasture is hayed. Something to consider.
- Keppler: I'm suggesting a future conversation the spatial extent to which we use this data. Are we going to keep it at the county level, or are we going to distribute cropland to LRSEGs. This would present another set of issues we need to address.
- The AgWG agreed to have a follow-up presentation from LUWG in February meeting.

ACTION: The AgWG should consider methodologies to incorporate the Phase 6.0 ag land uses with the high resolution acreages being calculating and reconciled with the age census. Suggestions for these methodologies should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov), who will coordinate with the LUWG to facilitate further discussion between the two workgroups.

2:45 Phase 6.0 Beta Ag Land Use Loading Ratio Report

Tom Jordan/Gene Yagow

- Tom Jordon presented on the Virginia Tech committee's final draft report on the Phase 6.0
 Agricultural Land Use Loading Ratios. The findings of the committee were previously reviewed
 and approved by the workgroup during the September quarterly meeting for the Beta version of
 Phase 6.0.
- The AgWG had concern about use of the word 'negligible' in terms of the effect of surface runoff N on total N load ratios.
- Gene Yagow: The task of this group was to give relative N loads of different crop types. This is saying that the big difference in corn and soybean, for example, isn't due to differences in surface runoffs between the two crops. It's not saying surface runoff is negligible, but that subsurface runoff is more important.
 - Tom Simpson suggested a revision of the language used.
- Jack Meisinger: There's almost no data on surface runoff, so we didn't want to use one sample site to represent the whole watershed.
- Gene Yagow: The possible errors we were discussing are in the evaluated values as performed by Tetra Tech.
- Angstadt: Where do these ratios fit into the puzzle?
 - Jordan: They're part of the model, so Gary Shenk or a modeler should really speak to this.
 - Angstadt: So they're part of the nutrient targets?
 - Dubin: Yes.
 - Yagow: These represent how the adjustments are being made during the calibration.

ACTION: The AgWG should read and review the Phase 6.0 Beta Ag Land Use Loading Ratio Report (posted to the December AgWG meeting page) in order for the workgroup to approve and review it during the January 2016 meeting.

3:25 Discussion of AgWG Leadership Transition and Timeline

Workgroup Chairs

• The AgWG co-chairs briefed the workgroup on the preparations underway to elect a new workgroup chair and vice chair.

ACTION: The workgroup co-chairs will draft a job description for the position of AgWG chair and vice-chair, and will post and distribute to the AgWG. Nominations are open to anyone seeking to become vice chair and chair. Nominations should be sent to Lindsey Gordon (Gordon.lindsey@epa.gov).

DECISION: The AgWG will vote on the nominations for workgroup chair and vice-chair during the February 2016 meeting.

3:35 Finalization of Proposed 2016 AgWG Meeting Calendar

Workgroup Chairs

ACTION: The AgWG approved the revised proposed 2016 meeting calendar.

3:45 Wrap-Up/Review of Action and Decision Items Workgroup Chairs/Mark Dubin/Lindsey Gordon

4:00 Adjourn

Future agenda items:

- Presentation from Jim Baird and related groups on the progress of crediting land conservation in the model, and resolving the issue of the model crediting ag lands with higher loading rates than developed areas.
- January 2016 AgWG meeting: Discussion of the future BMP panels prioritization list.
- February 2016: Further discussion on the reconciliation of ag census acres with the high resolution data used by the LUWG, and the incorporation of the Phase 6 ag land uses with this information.

Next conference call:

Thursday, January 21th 10:00AM-12:00 PM

Next face-to-face meeting:

Wed - Thu, February 17-18 - Location TBA

Participants:

Kristen Saacke Blunk, Headwaters LLC John Rhoderick, MDA Valerie Connelly, MD Farm Bureau Jim Baird, American Farmland Trust Marilyn Hershey, Ar Joy Farms LLC Ron Ohrel, Mid-Atlantic Dairy Association Tim Sexton, VA DCR Jeff Sweeney, EPA Tim Garcia, NRCS CBP Coordinator Bobby Long, VA DC Frank Coale, UMD Jeff Hill, Lancaster Cons. District Marel King, CBC Bill Chain, CBF Paul Bredwell, US Poultry and Ag Association Lindsay Thompson, DE MD Agribusiness Bill Angstadt, Angstadt Consulting Lindsey Gordon, CRC Staff Ron Korcak, USDA ARS Jeremy Hanson, VT

Kelly Shenk, EPA Region 3 Jennifer Reed-Harry, Penn Ag Industries Kristen Wolf, PA DEP Fred Samadani, MD Environmental Consulting Ann Swanson, CBC Susan Marquart, NRCS Jim Cropper, Northeast Pasture Consortium Ted Tesler, PA DEP Ken Staver, UMD Amanda Barber, Upper Susquehanna Coalition Chris Brosch, DDA Edwin Kee, DDA Clint Gill, DDA Greg Albrecht, NYS DAMLWR Rachel Rhodes, MDA Steve Taglang, PA DEP Alisha Mulkey, MDA Lauren Torres, DDA Robin Pellicano, MDE Glenn Carpenter, NRCS Jack Meisinger, NRCS Jenn Volk, UD