

Meeting Minutes
June 16, 2022
10:00 AM-3:00 PM
Agriculture Workgroup Conference Call
Meeting Materials: [Link](#)

Summary of Actions and Decisions

Decision: The AgWG approved the [minutes](#) from the May AgWG call.

Action: Contact Laura Cattell Noll (lnoll@allianceforthebay.org) if interested in participating in the creation of an agricultural module in *A Local Government Guide to the Chesapeake Bay*.

Action: Contact Ted Tesler (ttesler@pa.gov) with feedback on PA commodity cover crop tracking and reporting. The AgWG will vote on the method at the July meeting.

Action: Tom Butler, EPA, will further define the membership and nomination process for the Phase 7 Agricultural Modeling Team. He will follow up with the AgWG and return at a future AgWG meeting to get approval of the charge and call for nominations.

Introduction

10:00 **Welcome, introductions, roll-call, review meeting minutes** Workgroup 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:** Approval of [minutes](#) from the May AgWG call
- New Chesapeake Program Director: [Kandis Boyd](#)

10:05 **A Local Government Guide to the Chesapeake Bay (20 min)** Laura Cattell Noll
Laura Cattell Noll, coordinator of the Local Leadership Workgroup, discussed *A Local Government Guide to the Chesapeake Bay*. See previous work [here](#). New modules are under construction related to agriculture with intended distribution in 2023.

Discussion

[Grant Gulibon](#): Do you have anything drafted for agriculture yet?

[Laura Cattell Noll](#): We do not. We want to work with you all before drafting anything.

[Jennifer Walls \(in chat\)](#): A module on agriculture would be valuable.

[Jeremy Hanson](#): Any constraints? One ag module or would there be enough for 2 or 3?

[Laura Cattell Noll](#): Probably only one module. We want to keep it very simple.

[Amanda Barber \(in chat\)](#): I think if we can concur on the intent and message the module could be quite useful. I do worry about others being able to modify for their purposes.

[Laura Cattell Noll](#): Elected officials in the watershed are seeking more information about ag. We first want to make sure this is a resource that you would use. Also, it'd be helpful to identify two or three people that would be willing to offer feedback on what key messages and resources to be included. Timeline is this Fall.

[Jeremy Hanson \(in chat\)](#): In addition to the value, workforce, community stuff, a couple topic ideas: planning for resilience: future climate impacts to ag, similar to what you have in the stormwater modules. And maybe a slide or two on the basics of soil health.

[Elizabeth Hoffman \(in chat\)](#): agreed, Jeremy -- climate impacts to ag and the role of soil health are helpful topics

[Amanda Barber \(in chat\)](#): I think demographics/statistics on ag would be good and pictures speak a thousand words...use lots of pictures so "they" can see us!

Kathy Braiser (in chat): A great resource: <https://agsci.psu.edu/aec/research-extension/webinars-events/ag-101>

Jenna Schueler (in chat): I think a cost-share program 101 would be great for elected officials. What cost share programs are there at the federal/state level-what they offer etc.

Clint Gill (in chat): I agree with Jeremy as well, especially the overall economics and jobs slide

Laura Cattell Noll: If there are key terms you use frequently that you want the officials to know, please share those as well.

Tyler Groh (in chat): I'm willing to run over things and provide feedback whenever you want to reach out. I can be another set of eyes on things.

Jenna Schueler (in chat): I'd be willing to provide feedback as well.

Grant Gulibon (in chat): I echo Tyler's comment above

Greg Albrecht (in chat): Also guidance on effective approaches for the Ag community to engage with local leaders and establish understanding with them (on farm meetings (even Ag happy hours), chamber of commerce meetings, tours, etc.). So we're familiar with them and vice versa.

Action: Contact Laura Cattell Noll (lnoll@allianceforthebay.org) if interested in participating in the creation of an agricultural module in *A Local Government Guide to the Chesapeake Bay*.

Accounting & Reporting

10:25 Rapid Review: Winter Crop (10 min)

Loretta Collins

Loretta Collins, UMD- AgWG Coordinator, reviewed past discussions regarding a request to consider nutrient reduction crediting for winter forage crops as a beneficial alternative to winter fallow cropland.

10:35 PA Commodity Cover Crop (CCC) Tracking & Reporting (25 min)

Ted Tesler

PA is seeking a means to collect and report annual commodity cover crop information for annual implementation progress scenarios and seeks feedback from AgWG members. Ted Tesler, PA DEP*, returned to the AgWG to further discuss the method PA is considering to calculate commodity cover crop acres from its transect surveys, as present on the May AgWG call. Ted presented additional county-level data showing details of the calculation and its impact. PA will be seeking AgWG endorsement of this method at the July AgWG meeting.

Discussion

Jeff Sweeney (in chat): The Bay Program definition of commodity cover crops (CCC) does not allow nutrient applications in the fall. How do you know if applications occurred or not through a transect survey?

Ted Tesler: Nutrient applications are allowed, as per Loretta's earlier presentation. The definitions are hindering our ability to solve the problem.

Jeff Sweeney: We have a category for fall [emergency manure] nutrients but this proposal is for CCC, not cover crops with fall nutrients.

Ted Tesler: These are harvested. Whether the material stays on the field in the Spring seems to make the difference and I don't know if that's the case in practice. That's where we're stuck between traditional and CCC definitions. Also stuck between land use designations.

Frank Schneider (in chat): Is it time for the Bay program to look at the definitions of Cover Crops again? Much more is known now than when the definitions were made. Cover crops have many additional benefits other than scavenging N, such as less soil erosion, soil health, etc.

Dave Montali: We have similar problems in West Virginia. Our issue is that it leads to cutoff/excess because we don't have enough small grain or double cropped land use in those counties. Is part of what you're suggesting that we can look into applying CCC on different land uses, like corn?

Ted Tesler: It's more general in that it's overall nutrient management planning and recognizing that nutrient management budgeting and planning extends over multiple years. We think this should be taken up by the Phase 7 Ag Modeling Team.

Dave Montali: What are you asking for in the meantime?

Ted Tesler: We just want to track CCC in the meantime through the vehicle of winter planting, whether it's in the bucket of traditional CC or CCC.

Amanda Barber (in chat): The factors of harvest and fall manure are the two stumbling blocks with current definitions.

Ken Staver: A lot this comes back to panels and definitions. This was a bit of a fight about having the CCC in the cover crop panel to start with. It's basically a nutrient management issue. We have to work with the land uses as they are defined. Not sure the cover crop practice is the place to handle this.

Loretta Collins (in chat): Traditional Cover Crop (no harvest*)

Baseline: Fallow Ground + soil residual N + zero applied N

BMP Option 1: winter cereal/legume mix + soil residual N + zero applied N

BMP Option 2: winter cereal/legume mix + soil residual N + 50 lbs N/ac fall manure (70% of Option 1 Efficiency)

Commodity Cover Crop (harvest)

Baseline: Commodity small grain + soil residual N + 30 lbs N/ac

BMP: Commodity small grain + soil residual N + zero fall-applied N

Dave Graybill (in chat): Some of these crops are seen by farmers as cover, soil health, and a commodity.

Ken Staver: Corn silage can be a double crop or corn silage category as a land use? So does having the corn silage in the double crop land use help or give you flexibility?

Ted Tesler: That's beyond what we're looking for. I'm just looking to count what we have through the transect survey.

Jeff Sweeney (in chat): Agree w/ Ken. Why wouldn't winter barley and wheat not fall into small grains in the model from Ag Census data - and already be accommodated through the low loading rate for small grains?

Greg Albrecht: In NY, the cover crop terminated as a haylage crop in the spring is squarely seen/used by farmers as a cover crop, so wouldn't be reported as a winter cereal in the census. Is there an option in the interim to credit it as *BMP Option 2: winter cereal/legume mix + soil residual N + 50 lbs N/ac fall manure (70% of Option 1 Efficiency)*? Suggesting that because there is no risk of over crediting that scenario. Risk is that we're under crediting. We could accept that in the interim until we address this in Phase 7.

Loretta Collins: Maybe that's something we can do in the near term for haylage and other harvested crops. We just have to adhere to the Bay Program process. We might have to wait until the next version of CAST.

Dave Montali: Ted, you only want approval of the method to report? Not worried about the cutoff/excess?

Ted Tesler: The cutoff/excess is a separate problem. Right now just the endorsement of the method.

Olivia Devereux: I don't think excess would occur because he's using the Bay Program land use to calculate the amount of CCC.

Dave Montali: Our issue in West VA is that we don't have enough of the small grain and double cropland land use in certain counties to credit this BMP, so it gets cut off in the model. The ideal would be to expand what land uses this BMP can be reported on.

Greg Albrecht (in chat): Thanks, Loretta, Ken. Happy to help on any steps for the traditional CC haylage scenario ("BMP Option 2") to be creditable.

Olivia Devereux (in chat): Regarding the decision process, does this need to go through the Watershed Technical Workgroup?

Vanessa Van Note (in chat): Ted, what progress is being made with using the Penn State survey (which collects information on commodity cover crops) in addition to the transect survey?

Greg Albrecht (in chat): Thanks, Dave. Our experience in NY, as well.

Amanda Barber (in chat): Correct. We are not reporting those in the ag census as grains.

Action: Contact Ted Tesler (thtesler@pa.gov) with feedback on PA commodity cover crop tracking and reporting. The AgWG will vote on the method at the July meeting.

11:00 **BREAK (5 min)**

CBP Assignments/Data & Modeling

11:05 Moving Forward: Addressing Ag Inputs in Phase 7 (55 min)

Tom Butler

Tom Butler, EPA, reviewed an updated draft charge for the AgWG's role in Phase 7 Watershed Model development based on AgWG feedback received after the May AgWG call. The AgWG was asked to approve of the Agricultural Modeling Team (AMT) charge and call for nominations.

Discussion

Dave Montali: Will we have jurisdictional representation in this group? People who know the model well but also know how things work within their state?

Tom Butler: We'd prefer to have technical experts rather than state assigned people.

Dave Montali: I think we should have state reps. The experts need to know what goes on in all parts of the watershed.

Tom Butler: It would be up to the AgWG. Maybe a compromise is that the state reps don't vote but they can offer advice or input.

Loretta Collins: These will all be public meetings as well, so interested parties are allowed to attend.

Ken Staver: How will the potential simplification of the model affect the scope of work in this group?

Tom Butler: The structure of the model itself is in the Modeling Workgroup scope. We deal with the inputs. We don't alter the model itself.

Ken Staver: It might be difficult to determine inputs if there is so much uncertainty with how the model is going to function for Phase 7.

Dave Montali: As co-chair of the modeling workgroup, we wouldn't make any changes to the load sources or inputs to the load sources. That would have to come from the AMT.

Clint Gill (in chat): I tend to agree with Ken there, the Ag Modeling Subcommittee (AMS) was kind of working to solve problems that arose from numbers going a little screwy after implementation of Phase 6.

Dave Montali: I noticed some things in the charge that may result in BMP expert panels, such as "nitrogen use efficiency". Would the AMT be able to say we need a panel reevaluation or what?

Tom Butler: If that happened, it would be outside of our scope to address it, but we could recommend that the expert panel be revisited.

Loretta Collins: How many members do you plan to have?

Tom Butler: Want to ensure we have all the experts we need to cover the range of topics, while still keeping it under 20 people.

Loretta Collins: Nomination process moving forward? Ranking system for members? How do we ensure the expertise is broad and not skewed?

Tom Butler: I think we'd have to discuss that after we see the applicant pool.

Dave Montali: This seems like it's going to get out of hand with so many experts. Could we have jurisdictional members as a voting body with additional advisors as needed?

Tom Butler: Are you saying we'd have single jurisdictional representatives who would have the access to this information and pull the advisors as needed?

Dave Montali: Yes, it would be valuable to have people who have insight into the model and some of these state issues.

Clint Gill: I agree with Dave. We basically have 20 areas of expertise, so we'd only have one expert/voting member making the decision per topic.

Tom Butler: Are you advocating for a single state person with resources available as needed?

Clint Gill: I would have to consult with colleagues, but yes, I think that would be my preference.

Dave Montali: If we choose to do that, we could have a list of experts much larger than 20.

Dave Graybill: Make sure you have enough expertise so that none of these topics get missed.

Tom Butler: I think there is value in giving the expertise a vote themselves.

Jeremy Daubert: The AgWG could still veto a decision made by the AMT if needed, which would give state reps a voice. It wouldn't really make sense to have the same people on the AgWG as they AMT.

Ken Staver: I think it should be hybrid. I don't think the experts would want to give the time commitment for this. Having an expert for each topic on the panel could get out of hand.

Greg Albrecht: I do recall pressures in the AMS on non-jurisdictional researchers where the literature couldn't take us all the way, but it wasn't acrimonious.

Clint Gill: Agreed. We did have experts. We could have reached out to more, but if I remember, we were also trying to move fast on these issues.

Kathy Braiser: What about a small exec committee of voting members who could draw in the relevant experts as needed?

Tom Butler: I think that's what Dave had mentioned earlier. Sounds like we need a hybrid.

ACTION: Tom Butler, EPA, will further define the membership and nomination process for the Phase 7 Agricultural Modeling Team. He will follow up with the AgWG and return at a future AgWG meeting to get approval of the charge and call for nominations.

Innovation

12:30 **Water for Agriculture (30 min)**

Kathy Brasier

Kathy Brasier, PSU/AgWG Vice Chair, presented an overview of the [Water for Agriculture project](#).

The Water for Agriculture project brings together social and biophysical researchers and practitioners to work with communities in Nebraska, Pennsylvania, and Arizona to address the water and agriculture issues that matter most to them through effective stakeholder [engagement](#).

Discussion

Loretta Collins: What are the deliverables of this project?

Kathy Braiser: We have roughly 20 different publications, as well as webinars around stakeholder engagement. Recordings and summaries are linked on the website. Still working through outcomes.

Loretta Collins: What's your vision to extend this to a broader scale?

Kathy Braiser: We're trying to develop tools and guidance for those that want to lead the process. Also thinking about how to measure the outcomes.

Loretta Collins: Do you have a sense of people looking at this outside of the highlighted PA counties?

Kathy Braiser: We're having some conversations with contractors that are meeting the county action plans to develop metrics with what they're doing.

CBP Assignments/Data & Modeling

1:00 **Re-Evaluating Fertilizer Data Sources (60 min)**

Tom Butler

Tom Butler, EPA, reviewed a history of discussions and decisions related to sourcing fertilizer information for use in CAST and where we stand now. Open discussion time was allotted to record partner concerns and discuss possible opportunities for improvements in the future.

Discussion

Dave Montali: Will this include the urban side of things too? So this won't be part of the AMT charge?

Tom Butler: Correct, there is an urban component to it. We want to get started on it now, which is why it's not part of the AMT charge.

Dave Montali: Our state folks said that AAPFCO is a group that is governed by the state chemists. They have biannual meetings. Maybe the Bay Program could discuss this at one of these meetings.

Loretta Collins: Not every state reports to AAPFCO. I think there are legislative components to this as well.

Dave Montali: It's a better data source at the state scale than it is at the county scale. Even better at the watershed level. We have dealt a little bit with it on the ag side, but it's worse on the urban side because we still use it at the county scale.

Loretta Collins: The Urban Stormwater WG is also putting together some effort to tackle the effort on the urban side. Do you have a sense of how it would work between ag and urban?

Tom Butler: Yes, I've met with David Wood. They are setting up their own task force, but we will collaborate as needed. My impression is that on the ag side I will be looking at the source of data, they will be looking at how to change their calculations of the data.

Ken Staver: Before 2013, the model was applying fertilizer based on crop need. It would be good to have an understanding of how these numbers affect loads or how these fertilizer sales data are used in the model and some sort of uncertainty analysis.

Tom Butler: Fertilizer is distributed based on the crop application goal after we apply biosolids and manure. The AMS voted on the application rates for those. I don't think there would be any uncertainty associated with that.

Jeff Sweeney: We don't have enough data from jurisdictions on what application rates are in order to do an accuracy analysis.

Loretta Collins: Crop application goals we have in CAST came out of the Phase 6 AMS from state representatives and university experts. It is critical that the wider partnership understands the ramifications of changes to the fertilizer data source. Hard to predict what will happen because there are multiple management factors that all influence one another.

Ken Staver: I thought a change from CAST19 to CAST21 was a larger fertilizer bucket, which turned into higher application rates, which turned into higher loads.

Dave Montali: The CAST documentation goes through this. We don't have a bottomless bucket anymore. Crop application goals are driven by lands with and without nutrient management. When yields go up, that takes a bigger chunk out of the bucket that we have. Also, the two new years of data suggested there's a larger bucket.

Greg Albrecht (in chat): Building in fertilizer sales data (cap) better addressed the reality that not all acres of all crops are fertilized up to the state guidelines.

Ken Staver: No data available since 2016, right?

Ruth Cassilly: Correct, no data available for 2017 yet. The most recent year we have is 2016, and we'll use that throughout all of the years until we get a new set of data.

Jeff Sweeney: One idea is getting the data straight from states instead of going through AAPFCO.

Greg Albrecht: Do we have a sense of how various states collect data from the vendors or manufacturers?

Tom Butler: My impression is that it varies across states.

Ruth Cassilly: AAPFCO has the UFTRS reporting system that I believe many of the states use directly, rather than collecting data in a different manner and then entering it into the reporting system.

Elizabeth Hoffman (in chat): re: fertilizer sales database. In MD that information is provided through individual forms or reports and needs to be entered into a database that is sometimes tricky to get information back out of on the state end. Is our understanding so far. It seems that some of those hiccups are being addressed in order to hopefully make the database more useful for all.

Greg Albrecht (in chat): Elizabeth, that sounds like a similar situation as in NY, including some IT issues with versions of databases and Windows.

2:00 **Reducing Ag Nutrient Loads: A Comparative Approach (30 min)** Donald Boesch
Donald Boesch, Professor and President Emeritus at UMCES, reviewed an analysis of outcomes, obstacles, and opportunities in reducing agricultural nutrient loads through a comparison of conditions associated with both the Baltic Sea and the Chesapeake Bay restoration efforts.

Discussion

Vanessa Van Note: For those of us operating on a staff level, how can we assist in moving in this direction?

Don Boesch: Good question. You can engage in dialogue about how we think about these things in a practical way, think about why or how this can or cannot be done.

Ken Staver: With nonpoint source, what kind of monitoring enforcement do you envision for pay for performance systems?

Don Boesch: We can learn from what they did in Denmark. Farmers are required to keep records and document how much fertilizer and manure is coming on to their fields. Similar to tax returns.

Ken Staver: In MD we're required to do that and it gets audited.

Don Boesch: How environmentally tight are the requirements? What happens if you're not meeting the standards or goals?

Ken Staver: With our cover crop program, for example, if you don't meet the nutrient management standards, you wouldn't be eligible for the program. Within MD, it's not totally different from what you're asking, but there's definitely a question of whether or not the standards are good enough.

Loretta Collins: The graph that showed the consequences of regulatory changes in nutrient management in the Denmark study: What were the economic ramifications on the ag sector and individual farmers from those regulations?

Don Boesch: I'm not entirely sure. I know it didn't decrease crop yields. There are some unintended consequences, though. I believe the crops ended up being less nutritious, which caused problems with farmers trying to feed their animals. Some hog production was shipped off internationally to countries with less regulations.

2:45 **New Business & Announcements (5 min)**

- **Update on STAC Workshop on Soil Health:**
 - Still in the very early stages of the conversation. Had discussion around soil health, explored whether we need to explicitly acknowledge the importance of soil health and elevate the conversation in the Bay Program.
 - Concerns raised about the uncertainty around what constitutes good soil health and the practices that can best enhance soil health. But also identified ways that we can start to create awareness and elevate the importance of soil health through the Healthy Watersheds Initiative and/or the Climate Resiliency Initiative.
 - **Contact:** Kathy Boomer (kboomer@foundationfar.org)
- **Northeast Sustainable Agriculture Research and Education (SARE) Large Grant Webinar - June 23, 2022 at 12:00 PM.**
 - Learn more about Northeast SARE's Research and Education, Novel Approaches, and Professional Development Grant programs and how to navigate the application process.
 - Registration [here](#).
 - Website: [Northeast Sustainable Agriculture Research and Education \(SARE\) Grants](#).
- **Infrastructure Investment and Jobs Act (IIJA): Opportunities to Invest in Water Infrastructure using State Revolving Funds: July 12**
 - **Tuesday July 12 from 9:30am-12:30pm**
 - Join the [National Association of Counties](#) and the [National League of Cities](#), Tuesday, July 12, 2022 at 9:30 am to learn more about the Infrastructure Investment and Jobs Act as a means to support water infrastructure. Through the sharing of jurisdiction-specific plans and local initiatives using this resource, this 2-hour webinar will address your questions about the IIJA and how it can support local projects that address your long standing water infrastructure needs.
 - [Register here](#)
- **Water Quality GIT Letter to the Management Board Regarding CAST-21**
 - https://www.chesapeakebay.net/channel_files/41983/wqgit_cast21_letter_to_mb_20220526.pdf
- **Water Quality GIT: July 27**
 - Transitioning to a new work plan for the next version of CAST.
- **Ag Progress Days (PA): August 9-11**
 - More Info [here](#)

- **Better Targeting CBP Resources to Achieve Multiple Outcomes**
 - <https://gis.chesapeakebay.net/targeting/>
- **2022 Ag Census:** If you have never received a census and are new to NASS surveys, [sign up to be counted](#) today. You do not need to sign up if you already receive NASS surveys. **Key Dates:**
 - June 30, 2022 – sign up ends
 - November 2022 – ag census mails out and data collection begins
 - February 6, 2023 – response deadline
 - 2024 (TBD) – data release

The Census of Agriculture is a complete count of U.S. farms and ranches and the people who operate them. Even small plots of land - whether rural or urban - growing fruit, vegetables or some food animals count if \$1,000 or more of such products were raised and sold, or normally would have been sold, during the Census year. The Census of Agriculture, taken only once every five years, looks at land use and ownership, operator characteristics, production practices, income and expenditures. For America's farmers and ranchers, the Census of Agriculture is their voice, their future, and their opportunity. - <https://www.nass.usda.gov/AgCensus/>
- **Animal Mortality Expert Panel Technical Appendix**
 - Most recent draft technical appendix available [here](#)- CBPO working through revisions based on feedback. Date for next WTWG discussion TBD.
 - Contact Jeremy Hanson (hansonj@chesapeake.org) with questions/comments.
- **Confronting our Agricultural Nonpoint Source Control Policy Problem** – tentative presentation at August AgWG meeting
 - Article here: <https://onlinelibrary.wiley.com/doi/full/10.1111/1752-1688.13010>
- **ASA, CSSA & SSSA International Annual Meeting: Nov 6-9**
 - Baltimore, Maryland
 - More information here: <https://www.acsmeetings.org/>
 - July 12 – Abstract submission deadline
 - Oct 3 - Early registration deadline
 - October 14 – Standard registration deadline

2:55 **Review of Action and Decision Items (5 min)**

3:00 **Adjourn**

Next Meeting:

Thursday, July 21: 10AM-12PM, Call-in Zoom

Participants

Jackie Pickford, CRC
 Loretta Collins, UMD-CBPO
 Jeremy Daubert, VT
 Kathy Braiser, PSU
 Tom Butler, EPA
 Ted Tesler, PA DEP
 Laura Cattell Noll, LLWG
 Ruth Cassilly, UMD
 Dave Montali, Tetra Tech, WV, MWG
 Elizabeth Hoffman, MDA
 Karl Blankenship, Bay Journal
 Cassie Davis, NYS DEC
 Tom Butler, EPA
 Vanessa Van Note, EPA

Grant Gulibon, PA Farm Bureau
 Kate Bresaw, PA DEP
 Matt Monroe, WVDA
 Jeff Sweeney, EPA
 John Clune, USGS
 Christian Richter, US Poultry & Egg Association
 Olivia Devereux, Devereux Consulting
 Ken Staver, UMD Wye REC
 Helen Golimowski, Devereux Consulting
 Carlington Wallace - ICPRB
 Jeremy Hanson, CRC-CBPO, WQGIT Coordinator
 Amanda Barber, Cortland County
 Tim Rosen, ShoreRivers
 Jennifer Walls, DNREC

Clint Gill, DDA
Greg Albrecht, NY
Frank Schneider, PA SCC
Seth Mullins, VA DCR
Cindy Shreve, WVCA
Jenna Schueler, CBF
RO Britt, Smithfield Foods
Dave Graybill, PA Farm Bureau

Tyler Groh, PSU
Patrick Thompson
Fiona Koye, NRCS
Eugenia Hart
Marel King, CBC
Josh Arbaugh

*Common Abbreviations

AgWG- [Agriculture Workgroup](#)

AMS - Agriculture Modeling Subcommittee (Phase 6)

AMT - Agriculture Modeling Team (Phase 7)

BMP- Best Management Practice

BMPVAHAT- [BMP Verification Ad Hoc Action Team](#)

CAST- [Chesapeake Assessment Scenario Tool](#) (user interface for the CBP Watershed Model)

CBP- [Chesapeake Bay Program](#)

CBPO- Chesapeake Bay Program Office (houses EPA and myriad contractors and grantees working towards CBP goals)

CBW-Chesapeake Bay Watershed

CCC - Commodity Cover Crop

CRC- [Chesapeake Research Consortium](#)

EPA- [United States] Environmental Protection Agency

NEIEN- National Environmental Information Exchange Network

NFWF- [National Fish and Wildlife Foundation](#)

PA DEP- Pennsylvania Department of Environmental Protection

PSU – Pennsylvania State University

STAC- Scientific & Technical Advisory Committee

WQGIT- [Water Quality Goal Implementation Team](#)

WTWG- [Watershed Technical Workgroup](#)

UMCES- University of Maryland Center for Environmental Science

UMD- University of Maryland

USDA-ARS- United States Department of Agriculture-*Agricultural Research Service*

USDA-NASS- United States Department of Agriculture-*National Agricultural Statistics Service* USDA-NRCS- United States Department of Agriculture-*Natural Resources Conservation Service*