

# Agriculture Workgroup (AgWG)

## Meeting Summary

August 14, 2014

9:30 AM to 3:30 PM

Chesapeake Bay Program Office

Fish Shack Conference Room (Green Building)

410 Severn Ave

Annapolis, MD 21403

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### ACTIONS & DECISIONS

**DECISION:** Workgroup members approved the July 24, 2014 and the August 8, 2014 minutes.

**DECISION:** AgWG will charge PLS to complete their Phase 6.0 recommendations and to present a draft to the AgWG by October 2014.

**DECISION:** Workgroup members agreed to the overall schedule of topics to cover in the next three months. The schedule will be posted on the website following today's meeting.

**ACTION:** Additional fall AgWG meetings will be scheduled by doodle poll in the next week.

**DECISION:** The Agriculture Workgroup endorsed Jason Keppler, MDA to replace Royden Powell as Maryland's representative member of the Cover Crops Expert Panel, Colin Jones, MDA to replace Royden Powell as Maryland's representative member of the Conservation Tillage and Nutrient Management Expert Panels, and Rachel Melvin, MDA to replace John Rhoderick as Maryland's representative member of the Poultry Litter Subcommittee.

**ACTION:** The TetraTech sampling approach documents are open for a 15 day comment period. Send any comments on these documents to [mdubin@chesapeakebay.net](mailto:mdubin@chesapeakebay.net) and [egiese@chesapeakebay.net](mailto:egiese@chesapeakebay.net) by August 29. Emma will post TetraTech's powerpoints from today's meeting for more information.

**DECISION:** AgWG chairs will discuss the options for Phase 6.0 and Phase 5.3.2 recommendations with the expert panels and with the WQGIT and the WTWG.

**ACTION:** Jurisdictions will review the initial list of BMP priorities, and provide any updates to [mdubin@chesapeakebay.net](mailto:mdubin@chesapeakebay.net) and [egiese@chesapeakebay.net](mailto:egiese@chesapeakebay.net) by 8/29. Emma will provide jurisdictions with the list of current and interim BMPs.

### MINUTES

#### 1. Welcome, Introductions and Workgroup Meeting Minutes

- John Rhoderick, AgWG co-chair, welcomed everyone to the meeting and confirmed participants.
- PA motion, MD second to approve the July 24, 2014 minutes
  - There were no objections; 7/24 minutes were approved.

- PA motion, MD second to approve the August 8, 2014 minutes
  - There were no objections; 8/8 minutes were approved.

**DECISION:** Workgroup members approved the July 24, 2014 and the August 8, 2014 minutes.

## **2. Workgroup Actions Status Report**

- Mark Dubin, Workgroup Coordinator, and Matt Johnston, Watershed Technical Workgroup Coordinator, provided a brief report on the status of the RI Technical Review Panel Recommendation Report. The panel report was fully approved by the workgroup on August 8, 2014.
  - MDA will be training staff and submitting RI practices soon.
  - VA: Note that the window of data has closed for 2014.
- Mark announced that the workgroup's Agricultural BMP Verification Guidance document was also approved by the workgroup on August 8, 2014.
  - Co-chair: The AgWG will be getting updates from the verification committee on the three issues we provided in our cover page memo.

## **3. Incorporating Fertilizer Sales Data in Phase 6**

- Matt Johnston (UMD): We are currently putting together new agricultural land use and animal number projections based on the 2012 Census of Agriculture. This will go to the states in early September for their review. Exploring possibility of projecting groups of crops rather than single crops.
  - Matt will update AgWG about this effort in September
- Matt presented a [draft method for incorporating fertilizer sales data into the Phase 6 Watershed Model](#). The AMS is requesting feedback on the draft method.
- Matt noted that farm and nonfarm sales are separated in the state level data. The non-farm data will be handled using a different method, yet to be determined.
- John Rhoderick noted that the data going back to 1997 may not be as accurate as the recent datasets from the state chemists.
- Rhoderick: There may be inaccuracies with the reporting of farm vs. non-farm.
  - Johnston: AMS has to determine why there is less fertilizer in the sales data than in the current model simulates. One reason is that the universities recommend applying fertilizer on pasture and hay.
  - MDA: Maryland's AIR forms say that fertilizer is being applied at significantly lower rates than recommended on pasture and hay.
  - VA: Note that the model was calibrated with that level of fertilizer, will this be applied this year and will that violate this calibration?
    1. Matt clarified that this is strictly for Phase 6.0
  - MDA noted that the AAPFCO data is annual and Census of Agriculture data is every 5 years, so there will need to be projections between years.

1. Johnston: Yes, and we have agreement from the Chesapeake Bay Program Office to purchase data from AAPFCO every year.
- NGO: This method seems better than those used in the past.
  - MDA: Recommend checking the estimations against the average prices of fertilizer in past years.
    - Johnston: Thanks for the suggestion; this will be another way to check our information.
  - NGO: What will be the effect on starter fertilizer and maximum theoretical yield?
    - Johnston: AMS has not yet determined how to distribute the available nutrients. Some recommend evenly spreading all nutrients across the landscape.
  - Mark noted that there could be some missing data in the ag census expenditures. So the extra methods to check the numbers will be important.
  - NGO: Will you also look at the recent years in these analyses?
    - Johnston: Yes, we have both datasets moving forward.
  - VA: There was a methodology change in the COA between 97 and 02, make sure the change is accounted for if it impacts this parameter.
  - Saacke Blunk: How is this data affected by practices such as cover crops?
    - Johnston: These practices and other factors will be implicit in the data itself.

#### 4. Workgroup Priority Tasks

- John and Kristen opened a discussion with the members to identify key recommendations for the workgroup to address in the coming weeks in preparation for the Water Quality Goal Implementation Team (WQGIT) meeting scheduled for October 7-8, 2014. The WQGIT meeting in Pennsylvania will focus on the critical decisions and timelines towards the Midpoint Assessment in 2017. The priorities identified by the workgroup today will be used to focus the discussions for future workgroup, panel and subcommittee meetings.
- Phase 6.0 land uses will be a high priority for September, the purpose of the discussion will be to come up with proposed land uses for Phase 6.0, understanding that when TetraTech completes the literature review for base loading rates there may be changes.
  - Saacke Blunk: Note that the WQGIT may decide to lump together some of the agricultural land uses.
  - Saacke Blunk: The WQGIT will be making final decisions on the land uses in October
    1. Dubin: There will still be adjustments to the land uses as loading rates are finalized.
- VA: Recommend that the discussion of land use BMP interfaces be moved up sooner on the schedule, due to concerns with the degraded riparian land use going away.

- Johnston: There may need to be a new group to look at existing BMPs and determine how they fit into the new land uses. This will be a big review; however we will need to start on particularly the pasture BMPs soon.
- NGO: This issue is broader than pasture. You will have to deal with what land uses to put nutrient management on, and high till and low till.
- Dubin: Who will do the analysis?
  1. NGO: Recommend a full day workshop approach to open the discussion to all interests.
- VA: Would like to at least start the discussion. Request that Matt identify which land uses will have an issue interfacing with BMPS (Not all will be affected) and let the Workgroup know how many will be affected.
  1. Matt agreed to provide the workgroup with this information.
- Chris Brosch recommended that the NASS presentations occur soon, because they will be answering many of the questions this group has about how farmers are filling out their ag censuses.
- DMAA: Will mineralization, manure storage and handling losses be dealt by the AMS?
  - Johnston: Yes. AMS is first addressing fertilizer, manure, application rates, and then the sequence, which is where the assumptions come in.
- DMAA: If AFO/CAFO land use is lost, there will need to be a way to credit BMPs.
- DMAA: AgWG should announce these discussions early to ensure participation.
- MASCD: Found the webinars for verification helpful. Recommend a similar process for some of these specific topics.
- DMAA: Recommend also discussing the big picture agricultural sector source load allocations, groundwater N lag time, and legacy phosphorus issues.
  - Johnston: This is going to be one of the most difficult issues for the modeling.
  - DMAA: It should be on our priority list that we want to see these issues moved ahead by the Modeling Workgroup and STAC.
  - Johnston: Recommend Gary be invited to present to this group on these topics.
- EPA: Where do the Poultry Litter Subcommittee recommendations fit in the schedule?
  - NGO: Encourage PLS to produce a report regardless of whether they can reach consensus.
  - EPA: Recommend that the PLS focus on their Phase 6.0 recommendations, many of which were already compiled.
  - Rhoderick: Recommend that the AgWG charge the Poultry Litter Subcommittee to work on their Phase 6.0 recommendations and drop the Phase 5.3.2 report. They will be asked to present to the AgWG in October 2014.

1. There were no objections.

**DECISION:** AgWG will charge PLS to complete their Phase 6.0 recommendations, and to present a draft to the AgWG by October 2014.

- DMAA: This looks like a good roadmap.
- Dubin: Please send any additional comments on schedule.
- NGO: Recommend planning for additional meeting dates to achieve this ambitious schedule.
- Dubin: The BMP land use interchange lead will be Matt and the jurisdictions.

**DECISION:** Workgroup members agreed to the overall schedule of topics to cover in the next three months. The schedule will be posted on the website following today's meeting.

## **5. MDA Panel Membership Requests**

- Jason Keppler, MDA, requested the Agriculture Workgroup's endorsement of Maryland's request to replace their current representative members serving on the Agriculture Workgroup's expert panels and subcommittee, due to staffing changes at MDA.
- Jason Keppler served on the previous cover crop panel, and will be re-joining the current panel.
- Colin Jones comes to MDA from Queen Anne County District office, he is Nutrient Management certified and MDA would like him to serve on both the Nutrient Management and Conservation Tillage panels.
- Rachel Melvin has the practical skills relevant to the Poultry Litter Subcommittee.
- Saacke Blunk: Recommend that the list of members be posted on our website.
- PA: Move to update MDA's representation on these panels.
  - Chair: Are there any objections to endorsing these MDA members?
  - There were no objections.

**DECISION:** The Agriculture Workgroup endorsed Jason Keppler, MDA to replace Royden Powell as Maryland's representative member of the Cover Crops Expert Panel, Colin Jones, MDA to replace Royden Powell as Maryland's representative member of the Conservation Tillage and Nutrient Management Expert Panels, and Rachel Melvin, MDA to replace John Rhoderick as Maryland's representative member of the Poultry Litter Subcommittee.

## **6. BMP Development Priorities for Phase 6.0**

- John and Kristen opened discussion on the development of an updated priority list for the evaluation of existing and new agricultural BMPs. A final priority commendation will be determined by the workgroup during the September meeting.

- Saacke Blunk: Clarify that we are focusing on Phase 6.0 for this prioritization list.
- Emma Giese reviewed the tiered approach to prioritizing the BMP list for comments.
- PA may have additional practices to add to the list.
- Dubin clarified that jurisdictions developed these priorities based on their WIP and milestone goals.
- NY: Recommend including other types of conservation tillage, and other practices that would fall to an existing panel.
- DMAA: Recommendation that we review the current BMPs and interim to help develop these priorities.
- Dubin: We will be asking the jurisdictions to update these priorities and then the AgWG to approve this in September.
- NGO: What was the feedback from TetraTech?
  - TetraTech provided a proposal. Their ability to support a panel will depend on what the responsibilities will be.
- Rhoderick: We will need to consider whether there is research and data to support some of the newer BMPs.

## **7. Sample Size Estimation for BMP Verification**

- Jon Harcum, Tetra Tech, presented a statistically-based approach to estimating appropriate sample sizes for BMP verification.
- NGO: Is this an established peer reviewed formula?
  - Harcum: The statistics used for polls assumes a large N, so the one well established difference in this method is to account for a finite population: to get the same level of precision with smaller samples.
- VA: This method is similar to what VA is planning to develop across all sectors. How would it work with a practice like fencing where the goal is to verify the number of feet of fence, rather than the number of installations?
  - Harcum: One option is to stratify the results: group the projects by size. Or to specifically target the largest projects, and to randomly sample from the smaller projects.
- Steve Dressing reviewed the contents of the posted sampling approach methodology document.
- PA: Recommend we find out what NASS' methods are?
- WV: Can USDA help determine the proportion of BMPs we can expect to find in follow up sub sampling?
  - TetraTech: Recommend using all reliable information that will help inform your equation.
- VA is looking to the verification groups to set the confidence levels and margins of error so that they can design our program around it for all sectors.
  - WV: Agree that verification groups should set the levels.
- CBC: The statistical approach (more than the base 10%) has a self correcting of the amount you need to look at to stay within your confidence intervals.
- NGO: Should states avoid re-selecting the same site multiple times.

- TetraTech: They could build into the selection process to make sure there aren't too many re-samples. However, would not recommend completely removing samples from the pool.
- Chair: We will keep these strategy documents open for a 15 day comment period. Send comments to Emma and Mark by August 29. Emma will post TetraTech's powerpoints for everyone's reference.

**ACTION:** The TetraTech sampling approach documents are open for a 15 day comment period. Send any comments on these documents to [mdubin@chesapeakebay.net](mailto:mdubin@chesapeakebay.net) and [egiese@chesapeakebay.net](mailto:egiese@chesapeakebay.net) by August 29. Emma will post TetraTech's powerpoints from today's meeting for more information.

## 8. BMP Development Priorities for Phase 6.0 continued

- Saacke Blunk: At some point we will need to ask our expert panels to move on to Phase 6.0 recommendations just as we asked the Poultry Litter Subcommittee to do.
- VA needs credit on Nutrient Management, which is beyond Tier 1. Recommend that the NM panel complete their Tier 2 recommendations for 5.3.2. Don't feel they should be held to the full BMP protocol for a recommendation for an efficiency that will only be good for two years.
  - Dubin: The WQGIT has set the BMP protocol.
  - Rhoderick: Recommend asking the WQGIT to make an exception.
- PA DEP: Ok with moving to the next phase of the model.
- Brosch: Requesting a tool for states to get credit for nutrient management plans that include side dressing, banding, and P index. Millions of acres of nm that will not get credit in the model.
  - DMAA: Recommend moving on to Phase 6.0. Recommend an interim efficiency for cover crops for phosphorus and sediment.
- Discussion surrounded the need to shift toward Phase 6.0 recommendations soon, and reluctance to place band aids for the short term. However VA strongly supports establishing an efficiency for Tier 2 Nutrient Management.
  - Dubin: We will bring this information to the WQGIT and WTWG and have discussions with the panels regarding the schedule and needs of the states.
  - Brosch: Encourage that the workgroup have a plan B to establish the bandaid at the workgroup level.
    1. Dubin: The challenge will be that we will have to defend the efficiencies in some way.

**DECISION:** AgWG chairs will discuss the options for Phase 6.0 and Phase 5.3.2 recommendations with the expert panels and with the WQGIT and the WTWG.

- Chair: For the September AgWG meeting, request that the states review this initial list of priorities, and add any additional priorities. Provide these updates to [egiese@chesapeakebay.net](mailto:egiese@chesapeakebay.net) by 8/29. Emma will provide the states with the list of current and interim BMPs.

- A final recommendation of the BMP priority list will be determined by the workgroup during the September meeting.
- VA: Recommend expanding stormwater structures beyond AFO to all stormwater structures.
  - MDA: agreed.

**ACTION:** Jurisdictions will review the initial list of BMP priorities, and provide any updates to [mdubin@chesapeakebay.net](mailto:mdubin@chesapeakebay.net) and [egiese@chesapeakebay.net](mailto:egiese@chesapeakebay.net) by 8/29. Emma will provide jurisdictions with the list of current and interim BMPs.

**ACTION:** Additional fall AgWG meetings will be scheduled by doodle poll in the next week.

## Adjourned

### Participants:

| Member                          | Affiliation  |
|---------------------------------|--|
| Kristen Saacke Blunk (Co-Chair) | Headwaters LLC                                       |
| John Rhoderick (Co-Chair)       | Maryland Department of Agriculture                   |
| Mark Dubin (Coordinator)        | UMD  |
| Rachel Melvin                   | Maryland Department of Agriculture                   |
| Jason Keppler                   | Maryland Department of Agriculture                   |
| Alisha Mulkey                   | Maryland Department of Agriculture                   |
| Greg Albrecht                   | New York State Department of Agriculture and Markets |
| Steve Taglang                   | Pennsylvania Department of Environmental Protection  |
| Ted Tesler                      | Pennsylvania Department of Environmental Protection  |
| Bill Keeling                    | Virginia DEQ   |
| Chris Brosch                    | Virginia Tech/VADCR                                  |
| Andy Yost                       | West Virginia Department of Agriculture              |
| Marel King                      | Chesapeake Bay Commission                            |
| Curtis Dell                     | USDA Agricultural Research Service                   |
| Susan Marquart                  | Pennsylvania NRCS                                    |
| Emma Giese, Staff               | Chesapeake Research Consortium                       |
| Kelly Shenk                     | U.S. EPA   |
| Kim Snell-Zarcone               | Conservation Pennsylvania                            |
| Bill Angstadt                   | Delaware Maryland Agribusiness Association           |
| Roy Hoagland                    | Hope Impacts   |
| Lindsay Dodd                    | Maryland Association of Soil Conservation Districts  |
| Jim Cropper                     | Northeast Pasture Consortium                         |
| Jennifer Nelson                 | Resource Smart LLC                                   |
| Matt Johnston                   | UMD  |
| Colby Ferguson                  | MD Farm Bureau                                       |
| Colin Jones                     | MDA  |
| Sarah                           | DDOE   |
| Robin Pellicano                 | MDE  |
| Jack Frye                       | CBC  |
| Dave Montali                    | WV   |
| Jon Harcum                      | TetraTech  |