

Agriculture Workgroup (AgWG)

July 20th, 2017

10:00 AM – 12:00 PM

AgWG Conference Call Summary

Meeting materials: <http://www.chesapeakebay.net/calendar/event/24800/>

Actions & Decisions:

DECISION: The AgWG preliminarily approved the revised draft Phase 6 E3 and No Action scenarios, including specific recommendations for the temporary non-inclusion (implementation level set at 0%- to be re-visited before a final E3 draft approval) of the manure injection BMP, additional information to be incorporated regarding applicable land uses for the manure incorporation BMP, setting tree planting implementation to 1%, and setting the maximum implementation for agricultural land conversion (*forest buffers on cropland within 30 m of all streams, wetland restoration, land retirement to ag open space & to pasture, and tree planting*) to 15%.

Welcome, introductions, roll-call, review meeting minutes

Workgroup Chairs

- Minutes from the June quarterly meeting were approved.

Defining the Time-scale for Future P Scenarios

Gary Shenk

Gary Shenk, USGS, presented model results for a range of options for defining the length of time conditions that will be held in place for a given scenario to estimate changes in P runoff. Included will be results for simulations of 1, 10, 25, 50, and 100 year time-scales. The AgWG will have until the August 17th monthly Workgroup conference call to further review materials. During the August call the AgWG will be asked to make a recommendation to the WQGIT for defining the time-scale for future P scenarios.

Discussion:

- Gary Shenk noted that the P curves are not perfectly linear because APLE curves tail off due to higher exports.
 - Ken Staver: The effect for a 10-year versus 1-year scenario should be identical. If you ran the 1-year scenario for 10 consecutive years, then you should end up at the same place as the 10 year scenario, right?
 - Gary Shenk: We're only using one Mehlich value for a given scenario. If you assume that you start with a 1985 value, and you have high inputs, then after 1 year you will have an additional amount in your Mehlich. That number compounds with the additional years.
 - Ken Staver: Seems to me that the only thing that matters is the end-point.
 - Gary Shenk: Correct. The question for the workgroup is which endpoint they would like to consider for future scenarios.
- Chris Brosch: Wouldn't it be useful to see the effects of 2013 implementation rates into the future, so we can see how we could expect Mehlich 3 values to drop? That's what I thought we were deciding during our emergency AgWG meeting.
 - Gary Shenk: It's the same question.

- Chris Brosch: The way these APLE scenarios are run takes into account management effects. I'm having trouble extrapolating from 2013 on these graphs, but that would help give me more confidence as a manager.
 - Gary Shenk: If you put in a set of policies that would shift the APLE curve downward, then you will see these reductions. We can also run these in terms of WIPs.
- Kelly Shenk: It seems to me that for soils above 150, you will eventually level off to 150. But for soils under 150, you could actually have build-up. What confuses me is that we are assuming there will be P drawdown.
 - Gary Shenk: For example, if we were drawing down P aggressively in a county in 2006, and if that continued for 100 years, then their Mehlich value would be 75. I agree with your point that it's unlikely they would continue that for 100 years, and that may be a good argument against using 100 years.
- Matt Johnston: One big factor in these drawdowns, is P concentrations in poultry litter. What Gary is trying to add on is continuing phytase reductions for 100 years, and asking where we would be. We're also showing results in changes in manure available in a county here.
 - Chris Brosch: Doesn't it also follow NM implementation and manure transport – which the model currently struggles with? It would be misguided to say that it's simply phytase and manure P concentrations.
 - Gary Shenk: I want to remind everyone that these are scenarios, and I don't think anyone is suggesting we use the 100 year curve, since it's unlikely that management will be held constant for 100 years. I think we would both agree that 10-25 years would make more sense.
- Alisha Mulkey: I was under the impression that we would be using this as a projection – are you suggesting that whatever year we pick would replace the Bayesian soil time series value across the calibration period for any given county?
 - Gary Shenk: For the calibration, we would use the Bayesian value. But for scenarios of the past, we would use the scenarios from projection. That's the proposal.
 - Alisha Mulkey: I'm just wondering what the value of those scenarios would be since we're so far past that.
- Ken Staver: Is the crux of the question whether to give someone credit for something they will achieve in the future?
 - Gary Shenk: If people say in the WIP in 2025, they will implement such that there will be a reduction in soil P year by year, then how many years do we let that run out?

Phase 6 E3 and No Action Scenarios

J. Sweeney and Mark Dubin

Jeff Sweeney, EPA, and Mark Dubin, UMD, presented recommendations on a revised draft of the Phase 6 No Action and E3 scenarios for agriculture based on comments and suggestions previously received from the AgWG and state representatives. Once the Phase 6 partnership review is complete, model adjustments completed, and program policy decisions finalized, a final version of the Phase 6 No Action and E3 scenarios will be presented for Workgroup review and approval.

Discussion:

- Bill Angstadt: We've had a chance to use CAST and implement these definitions, etc., and I still have questions on whether we're being too aggressive in establishing controllable loads. On top of that, if we compare this to the urban sector, they haven't been this aggressive at all. So again, we have to discuss whether we're comfortable with that.

- Jeff Sweeney: There's nothing in these scenarios that requires anyone to do anything in terms of implementation. It's follows the rule that whoever pollutes the most, must do the most.
- Jill Whitcomb and Chris Brosch expressed concern with 100% implementation levels for manure incorporation and injection BMPs. Chris Brosch proposed clearing the confusion on how two practices could be applied to the same acre by eliminating manure injection from this scenario.
 - Jeff Sweeney replied that the rule of thumb is to implement the most beneficial BMP when two practices are mutually exclusive.
- Alisha Mulkey suggested the level of tree planting be reduced to 1%, and that the maximum percentage for forest buffers, wetland restoration, land retirement, and tree planting be capped to 15%.
- Chris Brosch: I'm not close to consensus with unanswered questions.
- Ed Kee: That's fair; what do we need to do to answer those unanswered questions then?
 - Mark Dubin: If the only concern at this point is MD's suggestion and the manure incorporation/injection suggestion from PA, then we may be able to move forward with the majority of this scenario.
 - Jill Whitcomb: I'm having a hard time understanding the effects that these recommendations will have.
- Jeff Sweeney: I think having everything finalized by the end of the year would be sufficient. We will release draft planning targets at the end of October, and then there will be several months of review. This is all about how we determine what those targets are.
- Bill Angstadt: I would urge the AgWG to approve these adjustments now so that we can stay on timeline to have preliminary planning targets presented to the WQGIT on August 14th. The sooner we get these preliminary targets, then the sooner we can react to this.
- Alisha Mulkey motioned for preliminary approval of the revised draft E3 and No Action scenarios, including specific recommendations for the removal of manure injection BMP, additional information on applicable land uses for the manure incorporation BMP, setting tree planting implementation to 1%, and setting the maximum implementation for agricultural land conversion to 15%. Motion seconded by NY.
 - Bobby Long cited disagreement with removing manure injection, but gave approval for this preliminary decision, requesting the ability to revisit this decision later on. He recommended exploring ways to balance implementation of both BMPs.

DECISION: The AgWG preliminarily approved the revised draft Phase 6 E3 and No Action scenarios, including specific recommendations for the temporary non-inclusion (implementation level set at 0%- to be re-visited before a final E3 draft approval) of the manure injection BMP, additional information to be incorporated regarding applicable land uses for the manure incorporation BMP, setting tree planting implementation to 1%, and setting the maximum implementation for agricultural land conversion (*forest buffers on cropland within 30 m of all streams, wetland restoration, land retirement to ag open space & to pasture, and tree planting*) to 15%.

Workgroup Phase 6 Model Review Questions

All

In preparation for the August 3rd AgWG Face-to-Face meeting, questions and comments are to be submitted to the CBPO modeling team by July 21 for advance consideration prior to the August 3rd meeting. Individual AgWG members are still encouraged to send their comments directly to the modeling team at their earliest convenience as part of the Phase 6 Chesapeake Bay Program partnership's model review period, which are due by July 31st, 2017 to be considered.

Discussion:

- Bill Angstadt: The modeling team has asked for questions by tomorrow. In looking at the comments currently posted, we're still a little late on comments concerning sediment. So having those additional questions come in would be appreciated.

Next meeting: Thursday, August 3rd Face-to-Face Phase 6 Model Review Discussion at the Chesapeake Bay Program Office, Joe Macknis Memorial Conference Room (Fish Shack) in Annapolis 1-4 PM

Participants:

Name	Affiliation
Ed Kee	DDA Retired
Loretta Collins	UMD
Mark Dubin	UMD
Lindsey Gordon	CRC
Chris Brosch	DDA
Clint Gill	DDA
Alisha Mulkey	MDA
Greg Albrecht	NYS
Emily Dekar	USC
Chris Yearick	NYS
Jill Whitcomb	PA DEP
Ted Tesler	PA DEP
Bobby Long	VA DCR
Matt Monroe	WV DEP
Marel King	CBC
Kelly Shenk	US EPA
Frank Coale	UMD
Ken Staver	UMD
Jennifer Reed-Harry	PennAg Industries Assoc.
Marilyn Hershey	Ar Joy Farms LLC
Tim Garcia	USDA
Jeremy Hanson	VT
Matt Johnston	UMD
Gary Shenk	USGS
Jeff Sweeney	US EPA
Bill Angstadt	Angstadt Consulting
Ron Ohrel	Mid-Atlantic Dairy Assoc.
Gary Felton	UMD
Steve Levistky	Perdue Farms