



**Chesapeake Bay Program**  
**Watershed Technical Workgroup (WTWG)**  
**Conference call**  
Thursday, April 2, 2015  
10:00 AM to 2:00 PM

**MINUTES**

**Summary of Action and Decision Items:**

ACTION: WTWG members should provide a list of contacts from their conservation districts to help CBP Staff review the NEIEN Appendix for consistency with NRCS practices. Please provide contact information to Matt Johnston ([mjohnston@chesapeakebay.net](mailto:mjohnston@chesapeakebay.net)) by COB, Wednesday, April 8 so this project can be completed as quickly as possible.

ACTION: WTWG members should contact their WQGIT representative if they wish to submit comments on the PLS report for the discussion during the April 13 WQGIT face-to-face meeting.

ACTION: Matt Johnston will discuss with Mark Dubin the possibility of incorporating manure data from other livestock types for use in the Phase 6 Watershed Model. Any new data that would impact livestock manure estimates would need to be fully analyzed and approved for use by April, 2016 to be used in the Phase 6 Model.

DECISION: The WTWG approved the proposed list of WTWG representatives for the upcoming BMP expert panels.

ACTION: Matt Johnston will work offline with Bill Keeling, Marty Hurd and others to determine the best method for using NEIEN for collecting historical data. Matt will then write up a new memo to be addressed at an upcoming meeting.

ACTION: Matt Johnston will reach out to Olivia Devereux to find out whether Pennsylvania will have support in getting the old USDA data through a 1619 Agreement.

Update: Olivia is working directly Pennsylvania on this action.

ACTION: David Wood will send out the CTIC representative's contact information with the other action and decision items.

**Introductions/Announcements – Dave Montali, WVDEP; Lee Currey, MDE**

**Status Update on Phase 6 Model Land Use – Peter Claggett, USGS**

- Peter Claggett presented an update on the status of the Phase 6 model land use classifications and work being done by the Land Use Team and Land Use Workgroup.

**Discussion:**

- Bill Keeling (VA DEQ): I have concerns about the land uses changes when you open it up to local comments.
  - Peter Claggett: I think a common response will be that folks will want land uses that are common with how they view and classify things. However, unless they have an argument based on water quality, they don't have the justification to actually get a change.

- Karl Berger (MWCOG): I have concerns about the time crunch in 2016. Only having one month for review will result in pushback.
  - Claggett: It is really only 1 month for the last bit of data. We expect a rolling review as data comes in.
- Keeling: Extractive lands being lumped with developed land uses is a point of contention. It's not necessarily that big of a deal, but it may need its own source sector.
  - Claggett: Because of better communication?
  - Keeling: Yes, and because it is not really developed. We have a lot of extractive lands that are not near developed areas and it may make sense for them to be in their own source category. I don't see that bothering how you go about mapping it. Maybe that is a WQGIT decision.
- Dave Montali (WV DEP): Are you proposing lumping disturbed forest and harvested forest?
  - Claggett: No, they are separate. It was a typo in the presentation, they should have different acronyms.
- Keeling: We have not been collecting data on disturbed forest land.
  - Claggett: We were going to get that data from West Virginia University (WVU) and apply them across the board. The data is 250cm resolution raster data from remote sensing. We assumed jurisdictions didn't have it.
  - Keeling: Then I need the forestry people to view the final product and make sure there is not overlap with what they consider harvested.
  - Claggett: That is a good point, we have not gone into any detail on this with the Forestry Workgroup up to this point.
- Montali: Is this decision final that we will have disturbed forest as a land use category?
  - Claggett: I can't say it is final because we are waiting to make sure WVU can give us the data.
- Montali: Will a decision be made on the land use loading targets by April 22?
  - Claggett: I hope so, that's what we're trying for.
- Ted Tesler (PA DEP): Who is providing the data for harvested forest?
  - Claggett: Agencies in the Forestry Workgroup we assume have that data.
- Tesler: What if they don't, is there a linear assumption?
  - Claggett: That was how we handled it in Phase 5 of the Watershed Model, and that is our default if we don't get actual reported data by county.
- Keeling: In Virginia we don't have to assign a waste-load allocation to a non-discharging operation. If we don't need that differentiation, do we need farmsteads as a land use?
  - Gary Shenk (EPA): That is an interesting point. A farmstead does take up space, so it could be a land use. I don't think there is anything wrong with Bill's suggestion. That is how it works in practice. We handle it as a point source in Phase 5 and we expect the same in Phase 6 but it is applied as a land use because it takes up space.
- Keeling: But if Peter is having a hard time differentiating farmsteads from developed impervious, I'm thinking that while there is an acreage there, we haven't represented it as a land use loading and wash-off situation.
  - Shenk: I think there would be a loading rate for the acreage, and the spillage that would occur would be put in as a point source. I think this could be understood as an assumed load from storage and handling loss and separately there is a farmstead land use that loads like for instance, urban impervious.
- Keeling: Do we set a WLA or an LA for this source?
  - Shenk: We are modeling it as a wash off, not a point source. That would continue, we just might not have an acreage.
- Lee Currey (MDE): We can take this conversation offline and see if there is a reasonable approach.
- Lew Linker (EPA): The stream cross-sections could be very useful for the modeling team for our F tables. Is this done everywhere, or are there restrictions?

- Claggett: We are planning to do it everywhere. LiDAR does not penetrate through water, so for future investigation we'd like to figure that out in terms of overall depth.
  - Linker: But this is a lot more than what we had before, so this is great.
- Currey: When you are accumulating the acres within a segment, in Phase 5 we were going to hold Ag census data as fixed and we were going to put everything else in a bucket. Is that process developed or are you working through it?
  - Claggett: We are still working with what land use data we can take from and what is fixed. Where we have a lot of confidence, we won't touch that data, but where there is a lot of fudge factor, that is where we would take acres if needed.
- Linker: One of the big growth areas is the region is shale gas development. That would be classified into open space?
  - Claggett: Yes, that is how we will map it. I think we will have a 2013/14 coverage and 2010 coverage of the shale gas areas, but that is the extent of our data. If they need to be treated differently than open space, that is a hole that needs to be addressed.

### **Joint Agenda Item Complete**

#### **Poultry Litter Subcommittee – Matt Johnston, UMD**

- Matt reviewed the [recommendations from the PLS report](#) that was approved by the AgWG during their March 18-19 quarterly meeting. The recommendations will also be presented to the Water Quality GIT on April 13.

#### **Discussion:**

- Tesler: I like the approach. What are the plans for the missing data?
  - Johnston: Unfortunately there isn't a plan yet, at least for portions of the data. In terms of filling in gaps for turkeys and layers, that is an ongoing discussion. We would like to look at manure transport data or manure hauler data to get info for turkeys potentially.

ACTION: WTWG members should contact their WQGIT representative to submit comments on the PLS report for the discussion during the April 13 WQGIT face-to-face meeting.

#### **BMP Panel Representatives**

- Members were asked to approve the [nominations](#) for WTWG representatives to each of the new BMP expert panels.

#### **Discussion:**

- Johnston: Are there any questions or concerns with the list of nominees?
- Tesler: Who was WTWG representative for the Manure Treatment Technologies expert panel?
  - Chris Brosch (VA DCR): I serve as the representative for that panel. In the next 3 months or so, they will be coming out with recommendations so I will keep the WTWG updated.
- Tesler: Are there any objections to the list of nominations for WTWG representatives for the upcoming BMP expert panels?
  - None were raised, the list was approved.

DECISION: The WTWG approved the proposed list of WTWG representatives for the upcoming BMP expert panels.

#### **Historical Data Cleanup and NEIEN- Matt Johnston, UMD**

Matt described how federal agencies will be incorporated into NEIEN to accommodate federal reporting, and discussed a potential approach to incorporating historical data into NEIEN separately from progress data.

For more information, please see his [proposal write-up](#).

#### Discussion:

- Alana Hartman (WV DEP): Is the agency code already in the codes list or is this something new?
  - Johnston: It is already in there, but some jurisdictions are leaving it blank now.
- Keeling: I don't see how Virginia can get away from submitting two sets of data. What is currently in NEIEN is what we report through 2015, not the complete history. But for cleanup/calibration I will need to create a complete history through time. Progress will just be new data we got for 2015. Once Phase 6 starts, you will be getting a whole new refresh of data every year to account for practices coming out of compliance.
  - Johnston: We thought the better approach was not to ask states to report two sets of data, but just to refresh data in NEIEN and use it for both purposes. Is that not a good approach?
  - Keeling: Maybe for some states but I don't think that will work for Virginia.
- Marty Hurd (DDOE): Can you clarify, Bill?
  - Keeling: I was thinking there will be a historic xml file reported for calibration. But I am currently not doing that for Phase 5 progress reporting.
  - Hurd: I think we are on the same page with this. We will be putting in a separate slug of data for historic data that is very different from what we are reporting for progress. But what Matt is saying is that it all ends up in the same database, NEIEN. We might send it in differently but we won't have to do separate database endpoints etc., it'll just be separate file submissions.
  - Johnston: To do that successfully and hold them both in NEIEN, is the best way to track the xml's and make one xml active for calibration and inactive for progress?
  - Hurd: That is pretty much what we do. There is an agency code identifier that we will need to mark historic submissions so they won't override the progress and so they won't use the same code. After we submit the historic data, we will review it and resubmit it until it is the best representation we can get.
  - Johnston: That is a little different. You will have a set of xml's but you will also have progress data xml's. You might be submitting some data twice.
  - Keeling: I don't see it as the same data. In my mind, Phase 5 needs to be wiped clean when Phase 6 comes in. We will replace it with a completely new representation of BMPs through time.
  - Johnston: In Phase 6 the credit life durations are built directly into NEIEN so you don't need to be pulling things out.
  - Keeling: But how will that work with aggregated data?
  - Johnston: If you have an implementation date and an inspection date for a subset of those, they will be exploded into 2 records.
  - Keeling: We would do the record by record accounting here and provide you with a cumulative total.
- Johnston: That's not the path the Partnership has been going down. We made the decision that we want to incorporate the credit lifespan right into NEIEN. We will pull in those dates and refer to a credit duration number. Those will become required field. If inspection dates are not submitted, they will roll out of credit.
  - Keeling: I think Virginia has a problem then. At the end of the day, all I will get is aggregated data and I will have to assume the agency that provided it has handled the inspection dates. I won't have that data to report to you.
  - Johnston: If we have to change this method, we have to do it quickly.

- Hurd: For each year you would have an aggregate of what is verified to have been on the ground back to 1985? If that's the case, there shouldn't be a problem.
  - Keeling: I will submit an xml with each year's implementation, but that will account for practices that have been pulled out. It would be a cumulative total.
  - Johnston: I'm sorry we have never discussed that method, Bill. We have been talking as a partnership for a long time about how to do this and we put the methods in place. We are putting together BMP-specific data in NEIEN. It is a very difficult task, but this is the path the partnership is taking.
  - Keeling: NEIEN is set up to take record by record reporting, but we can report gross aggregate data.
  - Johnston: You can do that, but it would require a very different approach to verification.
  - Keeling: NEIEN is a reporting tool, the states are responsible for verification.
  - Hurd: I think it can be handled, it is just more complicated to report it Bill's way. Maybe every year you report the implementation year, and in the next column you report a year +1 as a retirement date.
- Johnston: The other point here is that we are only talking about the cumulative BMPs. For annual practices, we will be collecting data every year. As Marty just explained, I think we can figure this out.

**ACTION:** Matt Johnston will work offline with Bill Keeling, Marty Hurd and others to determine the best method for using NEIEN for collecting historical data. Matt will then write up a new memo to be addressed at an upcoming meeting.

- Johnston: Is everyone comfortable with the federal agency codes and the inspection pass/fail dates? I would like to have the NEIEN team start working on those things.
- Keeling: I am concerned about anything becoming a "required" field.
  - Johnston: They are not "required fields" in the sense that if they are missing, they will not cause your submission to fail. However, if you do not submit anything in those fields, those practices will not move to Scenario Builder and you will not receive credit for them.
- Sandi: So an INSP code essentially resets the clock?
  - Johnston: Exactly.
- Johnston: I will get the team started on adding these things, and will put together two options for submitting cumulative data.

#### **AMS Update – Matt Johnston, UMD**

- Matt provided an [update](#) on of the group's efforts to-date and described a timeline for finalizing major decisions pertaining to Scenario Builder.

#### **Discussion:**

- Tesler: When distributing nutrients in the grain silage mix, is the black dashed line the crop need?
  - Johnston: Yes, the crop need is the starting point given to us by the agronomic recommendations. As the amount of nutrients change, it may be over applied or under applied.
- Tesler: Where are you setting the cap and why?
  - Johnston: You are starting the cap at the agronomic recommendations but it depends on how the curves are set up. The curves are not final, I want to make that point. We will ask agriculture economists and nutrient management planners as to how to approach these curves. This is a hypothetical approach to demonstrate the concept today.
- Keeling: Virginia DCR standards and criteria has a table that talks about some of this data. Do you want manure data from facilities? I think that's out there.

- Johnston: I think that's what we're looking for. I don't know what the path forward approach is, but let's bring that to Mark Dubin (UMD).
- Tesler: The brokers and agronomy guys usually have that data and keep it updated.

**ACTION:** Matt Johnston will discuss with Mark Dubin the possibility of incorporating manure data from other livestock types for use in the Phase 6 Watershed Model. Any new data that would impact livestock manure estimates would need to be fully analyzed and approved for use by April, 2016 to be used in the Phase 6 Model.

- Tesler: The split on farm and non-farm in that data is not as reliable as we would like it to be. I just wanted you to be aware that there are issues with it.
  - Johnston: That is helpful, is there someone I can talk to more about it?
  - Tesler: Karl Brown was who warned me against it.

### **Historical Data Cleanup Updates from States**

- States were asked to provide updates on their historic data efforts and were encouraged to ask questions regarding the process and the NEIEN Appendix or Codes List.

### **Discussion:**

- Tesler (PA DEP): As I go sector-by-sector, I am more concerned with each stop with how tricky this is. Point sources were not even testing for nitrogen and phosphorus until much later than we would have liked, so there is not a lot of data there. There is great resistance to developing annual data through 30 years of history. Will we have support in getting old USDA data through the 1619 agreement? That has come up as a critical component.
  - Keeling: USDA has been tepid about going beyond 2004 because they say the older data gets questionable.
- Tesler: My gut was to look at 5 year increments and get averages, or look at milestone marks I can grab onto. A lot of our data will be the result of averaging between set points and using best professional judgment. We have cleaned up some, but part of me wonders how much effort is this really worth because the time it takes keeps increasing. I have not even gotten into the urban sector at all and I am afraid that is going to be the worst sector because they have a ton of paper records.

**ACTION:** Matt Johnston will reach out to Olivia Devereux to find out whether Pennsylvania will have support in getting the old USDA data through a 1619 Agreement.

- Greg Sandi (MDE): We have gotten quite a bit of information, partly because we have so many MS4s. We have been pressing local governments and have about 20 new partners that are providing information. About 50% of that data is still unusable, but we are working on getting that back on track. We will be having a status update meeting tomorrow. Point sources I am still tracking down.
  - Johnston: At least in the more recent data, are you receiving anything that would help with submitting stormwater performance standards.
    - Sandi: Some yes, some no.
  - Johnston: Would you like me or Tom Schuler (CSN) to sit down with folks in your office to talk about rainfall acre feet?
    - Sandi: Yes, that would be a good idea.
- Jason Keppler (MDA): We have relied upon cost-share programs and we have a good handle on that data. When the new TMDL came into play, we updated our process to create a conservation

tracker database that is more comprehensive. We are currently making sure our cost-share practices are reflected in our new database and we received additional WIP assistance funding to help with that process. We just received historic CTIC tillage data and we will be comparing that as well as historic nutrient management information. It is just a matter of getting it in the proper format. Alisha Mulkey (MDA) asked for a copy of previously submitted historic data.

- Johnston: Yes, to remind everyone of that: two years ago CBPO pulled out not only 2009 progress data, but also data for the Phase 5.3.2 calibration period and put it up on the ftp site. Follow up with me if you can't locate it.
- Tesler: How far back did you get your CTIC data?
  - Keppler: I have it from 1989-2006 with a few missing years in between. That is county level data. I will provide that.
- Alana Hartman (WV DEP): We have good urban sector data going back to 2006, Sebastian Donner is working on that. I was worrying about the harvested forest BMP because I didn't know what the land use would look like, but some of those concerns were addressed in Peter Claggett's presentation earlier in the meeting. Dave Montali is working on CREP data to pull out individual contract acres for forest buffers, and we got pretty far with that. We started thinking we could do the same for grass buffers. Can we specify that we want CP21 acres to be applied to crops?
  - Johnston: Yes, and I want to remind everyone that as they are going through historic data, please submit requests to change the NEIEN appendix as you find needed changes. You can submit specific land uses or say you want acres to map a certain way.
- Hartman: We worked on animal waste management systems and we got that data back to 1998, as well as data for composters. The Department of Agriculture has been fleshing out a curve for nutrient management to make it more realistic.
- Johnston: Could each of you send contacts of the best person in your state to put on a small group to review the NEIEN appendix for consistency with NRCS standards?
- Hartman: I would like to test submitting AWMS with CAFO's and see how they come through the system. I will do that shortly.

**ACTION:** WTWG members should provide a list of contacts from their conservation districts to help CBP Staff review the NEIEN Appendix for consistency with NRCS practices. Please provide contact information to Matt Johnston ([mjohnston@chesapeakebay.net](mailto:mjohnston@chesapeakebay.net)) by COB, Wednesday, April 8 so this project can be completed as quickly as possible.

- Bill Keeling (VA DEQ): Our current history has a lot of estimated information and none of it can be verified. We put out an RFA and are contracting with localities to provide us historic representation of the urban BMPs they've implemented. I will get that data on September 1. Our historical data will look radically different than the current data. If the locality does not give us data, they will not have anything represented in the Phase 6 Watershed Model. We will not do any estimating because that created a huge headache for us last time. As far as agriculture, there was a letter sent to the state conservationists indicating that because we couldn't come to terms with a 1619 MOU, that we will not be reporting USDA data for history, or for annual progress. I am extracting data from 1998-2005 from the Phase 5.3.2 calibration. The CBIG grant guidance has two dates for submittal, October 1 for historical data and December 1 for progress data, so I don't know how I will submit all that data in one fell swoop.
  - Johnston: You are right, there will be different submittals but all of the data will just still in NEIEN. You also mentioned harvested forest, we have been talking a lot about BMPs, but we would like to have historical harvesting and construction numbers so we can assess where we have the data and where we will need to assign a default value.
  - Keeling: In the NEIEN appendix, I envision one list for progress data and a different list of historical data. I may need two different appendices.
  - Johnston: Sure, put those together and we will work offline.

- Tyler Monteith (DE DNREC): Last week we brought together partners who submit data to talk about verification and historic data. Those sector groups will start meeting regularly to address those tasks. We are getting stormwater back to 1987 through KCI and the Department of Transportation. We went through the wetland restoration database back to 1989 as well as water control structures to 1987. Timber harvest we cleaned up back to 1991 and tree plantings back to 2008. Animal waste management systems and mortality composters are being worked on currently and Marcia Fox just received cover crop data to clean up.
- Steve Gladding (NY DEC): USC is drafting QA/QC documents that will be approved by Bay Program. Once that is approved, they will get working on things but they still expect to meet the various deadline.
  - Johnston: As they do that, make sure they reach out to me so they know about the NEIEN appendix changes and updates.

## Adjourn

### List of Call Participants

<u>Member Name</u>		<u>Affiliation</u>
Ted	Tesler	PA DEP
David	Wood	CRC
Matt	Johnston	UMD, CBPO
Marty	Hurd	DDOE
Tyler	Monteith	DE DNREC
Marcia	Fox	DE DNREC
Lew	Linker	EPA, CBPO
Jeff	Sweeney	EPA, CBPO
Jennifer	Sincock	EPA
Jason	Keppler	MDA
Alisha	Mulkey	MDA
Lee	Currey	MDE
Jim	George	MDE
Greg	Sandi	MDE
Nicolai	Francis-Lau	MDE
Marian	Norris	NPS
Steve	Gladding	NYSDEC
Peter	Claggett	USGS
Chris	Brosch	VA DCR
Bill	Keeling	VA DEQ
Carl	Friedrichs	VIMS
Jeremy	Hanson	VT, CBPO
Alana	Hartman	WV DEP
Dave	Montali	WV DEP