

CHESAPEAKE BAY PROGRAM
WATER QUALITY GOAL IMPLEMENTATION TEAM (WQGIT)

April 13, 2015 Face-to-Face Meeting
CBPO Fish Shack, 410 Severn Avenue, Annapolis
Meeting Minutes

Summary of Action and Decision Items

DECISION: WQGIT members approved the formation of an Oyster BMP Expert Panel and had no objections to the recommendation that the Oyster Recovery Partnership chair/coordinate this Expert Panel.

ACTION: WQGIT members should send any further comments or suggested revisions to the BMP Expert Panel Protocol to Lucinda Power (power.lucinda@epa.gov) by COB April 30.

DECISION: WQGIT members approved the Poultry Litter Subcommittee report.

DECISION: WQGIT members approved the list of Agriculture Land Uses and accepted the caveat that the pervious and impervious farmstead land uses may not be used if the imagery is not available to support them.

ACTION: The WQGIT will distribute the proposed list of reservoirs and local impoundments and inform jurisdictions and localities that they may provide more accurate data on spills or discharges from their impoundments if they have that data available.

Welcome/Confirm Call Participants/Workgroup Updates – Jenn Volk, Chair

Oyster Panel Recommendations – Ward Slacum & Julie Reichert, Oyster Recovery Partnership

- Ward and Julie from the Oyster Recovery Partnership [presented](#) their recommendations for convening an Oyster BMP Expert Panel.

Discussion:

- Dianne McNally (EPA): What is the relationship between an oyster expert panel and the stream restoration expert panel?
 - Julie Reichert (ORP): It helped us to form our recommendations and develop one of our objectives as far as how we think crediting oyster practices should be broken down.
- Peyton Robertson (NOAA): The Long Island Sound example involved the scientific experts on the panel working with policy experts to develop policy options. So in our case, the policy options would be put forward to the Management Board or someone else?
 - Reichert: Policy recommendations would come from the expert panel, but they would just be recommendations. We just want to make sure they are scientifically defensible recommendations.
- Robertson: There are some questions about the sufficiency of the science. Do you feel based on your literature review that you can rely upon existing science, or that some scientific studies currently underway can resolve these remaining questions?

- Reichert: We need a crediting framework first. I do think there is enough reasonable science, and if we have a framework established we can better apply that science to a nutrient reduction efficiency to inform policy decisions.
- Beth McGee (CBF): I think it is very ambitious for one panel to take on all of these issues. This proposal has given CBF some consternation, so we have concerns, specifically about how much the panel could take on.
 - Reichert: We would not want this panel to tackle nutrient trading for example. We primarily want the panel to look at these nutrient cycling processes to see if they can establish a framework for defining a reduction efficiency for meeting the Bay TMDL.
- McNally: I have similar concerns to those that Beth raised. We have interwoven some policy issues into what was to be a strictly science-based determination. Could we parse out a policy recommending structure separate from the science side of it?
 - Reichert: Yes, and we realize this is sort of a departure from the way BMP panels are usually designed, but we feel this is slightly different territory. We certainly welcome any suggestions. We do feel that it would be useful to have the science and policy folks informing each other as the process moves along.
- Jenn Volk (WQGIT Chair): Do you see this potentially as two separate panels then?
 - Reichert: I saw it as one panel with different objectives, maybe with subgroups.
- Scott Phillips (USGS): Maybe you could work with the WQGIT to see what is most important for the Midpoint Assessment (MPA) first, then move to other topics.
 - McGee: I agree with Scott.
- Tanya Spano (MWCOCG): I would suggest paying attention to this BMP panel process because as we get to the MPA, there will be more tradeoffs. I think this kind of approach, combining science and policy, is going to be coming up more and more and I advise the WQGIT to approach this carefully.
- James Davis-Martin (WQGIT Vice-Chair): Are you thinking the panel would look at this as an in-situ practice more broadly, or just look at oysters specifically?
 - Reichert: We were thinking oysters specifically because there is a lot of science already available and we think that would be the best starting point. It could have implications for other nutrient removal organisms, but we felt this panel should focus on oysters even though this process could inform others.
 - Davis-Martin: I think I am ok with that approach as long as the panel keeps in mind their potential influence on other practices moving forward.
- Lewis Linker (EPA): I would like to mention that when we were in the 2010 Bay TMDL decision year, we had a mature modeling framework that could handle oysters. We know oysters have the ability to influence dissolved oxygen (DO), submerged aquatic vegetation (SAV), and water clarity, but there just weren't any oysters at that time. But that has changed, so we want to know where those oysters are and how are they functioning. We want to be able to start quantifying these things. I think there is a lot for this panel to contribute to the effort.
- McNally: The Bay TMDL report indicates we are supposed to update the Watershed Model with new monitoring data. Maybe there is an opportunity for the Watershed Model to be updated with filter feeder information.

- Linker: That's right. For 2010, we had them coupled with water quality standards, but they weren't enough to actually impact those standards. There was a sense they would be revisited and now that their mass is increasing, this might be the opportunity.
- Rich Batiuk (EPA): That's right, what was missing was the decision for how to use the framework efficiency and how the oyster numbers are increasing. So we could use this to inform the MPA.
- Lee Currey (MDE): I think it is timely too. It does bring about concerns with these in situ practices, like with stream restoration. I think there is a lot of opportunity to address emergent questions and give credit for what is out there. But it is a good opportunity to address those in situ systems, realizing we might need to make some adjustments along the way.
- Spano: Any successful effort to quantify the benefits of these practices is also a public relations victory.
- Jennifer Greiner (Coordinator, Habitat GIT): On behalf of the Habitat GIT, we really want to thank the Oyster Recovery Partnership for their work on this. We want to echo the concerns about parsing out this panel so they don't take on too much at once. We also agree with Scott Phillip's suggestion about the MPA. I think the framework focus is the way to go.
- Volk: What is the anticipated schedule for the panel?
 - Ward Slacum (ORP): We have had discussions about the need to keep pace with the MPA. I think it is something we could act upon quickly so we can inform the MPA.
- Davis-Martin: What are our resource capabilities for additional panels?
 - Lucinda Power (WQGIT Coordinator): It would be great in my opinion if ORP can take this on. We have a big push to get some current panels done by October, 2015, but we know some will continue past that date. We have Tetra Tech resources to help with logistics, but I think we should embrace ORP's offer to assist with this panel given the work they've put in thus far.
- Slacum: So what would be your recommended next steps forward?
 - Power: Develop a panel charge, and we can put out a call for membership. That charge and membership would then be distributed to the partnership for review and comment. Once that review and comment period is complete and the panel's charge and membership is finalized, you can convene the panel.
- Dave Montali (WV DEP): Is there value in not calling this a BMP, or instead calling it "pollutant reduction effects"? I don't want to charge them too much with BMP verification if they still are working to establish the science. Is this something that will get BMP credit, or will it go in as implicit within the model?
 - Volk: Maybe it could be its own classification.
 - McNally: That is a good point, but it could be a policy decision.
 - Spano: I think the notion of verification is valid, and should still be a legitimate charge.
- Volk: Do we have agreement to ask ORP to move forward with developing a panel charge and membership?
 - No concerns were raised. There was agreement.
- Batiuk: James, Lucinda and I want to work with Julie and Ward on the schedule.
 - Volk: We can look and see how this fits in with the overall MPA schedule.
- McNally: NOAA and the Department of Delaware Estuaries are working on a white paper that they have been trying to compile on the science of oysters, in case that resource would be useful.

DECISION: WQGIT members approved the formation of an Oyster BMP Expert Panel and had no objections to the recommendation that the Oyster Recovery Partnership chair/coordinate this Expert Panel.

BMP Protocol Revisions – Lucinda Power, EPA

- Lucinda reviewed the changes to the Protocol based on partnership comments, and led a discussion to resolve any concerns. The proposed BMP Protocol revisions can be downloaded from the meeting [calendar page](#).

Discussion:

Panel composition:

- Davis-Martin: I don't think I necessarily have concerns with the language. I thought it was strange to call out conflicts of interest here when there is a whole section on that later. It is a broader question for me, as far as what we are talking about. Conflict of interest may mean different things to different people. I get the sense that we are saying a state agency representative has an inherent conflict of interest because they are responsible for meeting the Bay TMDL.
 - McGee: That is not a view CBF shares, but it is one I hear from other organizations.
 - Jessica Blackburn (Coordinator, CAC): That was an issue the Citizens Advisory Committee (CAC) raised. The concern is that if there are too many state representatives on the panel, there might be a bias to move forward with existing standards and protocols.
- Davis-Martin: Of course we want a balance of membership, but to me that means including people who understand how the data are collected and reported from the state and locality point of view.
 - Norm Goulet (NVRC): I think James is absolutely right. The composition has to be balanced. You can't have a panel that doesn't understand how things work at the state or local government levels. You have to mix the science with the policy to make useful recommendations. While you may not be able to dictate that language in the Protocol, you need to be having these conversations with your sector workgroup chairs.
- McGee: Isn't it an option for the panels to bring in outside experts to share their expertise?
 - Goulet: It is easy to say that, but it is difficult to do. You need to have the mixed composition at the table at all times for continuity.
 - Spano: I would reiterate that. This is a partnership of people trying to implement the BMP Protocol. The BMP process is supposed to vet solid science that is implementable.
- Gary Shenk (EPA): As the representative for the Scientific and Technical Advisory Committee (STAC), they are concerned about this issue of conflict of interest. They are afraid the scientific consensus is not coming out of these panels because the people being paid to be there may outlast, in terms of an argument, the scientific experts from the academic community who are generally volunteering their time.
 - Spano: That presumes there is a pure science.
 - G. Shenk: I don't disagree with your point, it is just a different perspective.
- Mary Gattis (Coordinator, LGAC): There is so much more to this than just the loading rates, and it speaks to the need to have some of these other representatives.

- Power: I don't see any language that specifically excludes particular groups of people I completely agree with the comments about balanced composition. Separating out the conflict of interest piece for one second, does anyone feel this language excludes anyone or could be modified to be more inclusive?
 - Montali: After I read this, I think that the words there do not exclude.
 - McNally: I think on page 4, we are specifically excluding folks that have a financial interest in this. I thought I heard Norm had a concern with this.
 - Power: That gets into the definition of conflict of interest, and we do have language that does exclude those with a direct financial benefit.
- Spano: Who are we trying to keep out of the official panel with this language?
- Davis-Martin: Maybe this is more about disclosure of potential conflicts.
 - Power: We could revise the language so it doesn't go into the definition of conflict of interest, but rather discusses the disclosure of conflicts of interests.
 - Currey: We have to have some flexibility, but the source sector workgroup would be reviewing those final memberships. Can we delete the language in the first area (under convene a panel) and include it just on Page 4?
- Power: How do you feel about the language under "expectations of panel members"? Do we want it to just state that they disclose conflicts of interest?
 - Goulet: That is my recommendation.
 - Russ Baxter (VA Office of the Secretary of Natural Resources): I agree.
- Spano: I would say that if you revise this language, you need to check it against the panels you already have. Make sure new language doesn't exclude anyone who is already on the panels.
 - Goulet: We have discussed grandfathering panels that are already convened before the changes. And we definitely need to follow through with that.
 - Power: That is a good point, and that language is already included.
- McGee: I know with the nutrient management expert panel, some academics couldn't fight a battle because they didn't have time. I think we need to ensure the panel is balanced and all voices are heard.
 - Goulet: That is where the importance of the alternative views being documented in the report comes in.
Jeremy Hanson (Virginia Tech): It is the perception of conflicts of interest that drives this. It is important to have the opportunity to have these perceptions heard and to address them.
- Gattis: I ask that "advisory committees" be referenced, rather than STAC and CAC individually.
-

Panel Transparency:

- Baxter: I don't know why we would ever have a closed Bay Program meeting. It indicates that we are trying to hide something. I think we should delete that section. I don't believe it will disrupt the panel process.
 - Goulet: I would disagree. We have had plenty of conversations in panel meetings where someone will say something that flies against existing policy. I have never once turned down someone who has asked to participate, but I don't want these to turn into free-for-alls.

- Baxter: It is a question of chairmanship. If there is a period where public comment is not taken, that is ok, but it is not appropriate to exclude people from even listening in.
- G. Shenk: STAC was interested in this process in order for scientists to remove their own conflicts of interest in case their recommendations were counter to their funders' opinions.
 - Ted Tesler (PA DEP): I agree. It allows them to have open discussions and not worry about them being exposed for any of their viewpoints. We need to let the scientists do their thing.
- Goulet: There are constant report-outs on these panels. They give regular updates to the source sector workgroups, as well as through other opportunities.
 - Marel King (CBC): I agree those source sector workgroup updates are very important. I think the language needs to be consistent throughout the Protocol that they "will" provide those updates, rather than in some cases saying they "should".
- Marian Norris (NPS): The National Academy of Science (NAS) guidelines regarding closed panel meetings are also there to protect intellectual property rights. The scientists on the panels are often presenting information that isn't published, patented, etc.
 - Goulet: We do run into this issue, so that is an important component.
- Davis-Martin: Some of the changes to this Protocol are new to the previous latest revision of this protocol. We are being a little kneejerk on some of these things. We haven't yet had a panel complete its work under this version of the protocol. With that said, could we make more explicit statements regarding guests of the panel?
 - Power: I think there is some language to that effect already in the protocol. I can make it more flexible so that it is not at the request of the panel, so that other folks can be more proactive about getting involved.
- McGee: Is there a limit to panel size?
 - Davis-Martin: It was intended to be a minimum, but unfortunately some groups also saw it as a maximum.
- George Onyullo (DDOE): How will allowing an observer in a meeting effectively protect intellectual property rights?
- Spano: I have committee meetings that are completely open. Before you open the meetings, you need to make sure you have a clear protocol to exclude those very few people who are going to be a problem.
- Hanson: I view the closed meeting as a shield, not to hide anything, but to allow me and the panelists to do their job. The ability to speak candidly cannot be undervalued. It helps with efficiency. Any observers who have not been involved from the start can really slow things down and it can be very damaging to the panel's progress.
- Volk: The BMP Protocol revisions aren't up for approval at this time, this was just to spend more time in discussion. Lucinda, please remind us of the schedule for submitting comments?
 - Power: I have asked for edits by April 30. If you want to schedule further discussion, please contact me. I had planned for approval in May, but I would like to certainly have final review/approval by June.
- Gattis: I would like to suggest June so that LGAC can have time to review it in May.
 - Davis-Martin: That reminds me of concerns about the scheduling and decision making process. I was hoping there was a way the advisory committees could reach approval in-between meetings, or hold more regular meetings.

- McNally: Are there any other meetings that have been closed at the Bay Program?
 - Batiuk: Yes, there are a number of examples.

ACTION: WQGIT members should send any further comments or suggested revisions to the BMP Expert Panel Protocol to Lucinda Power (power.lucinda@epa.gov) by COB April 30.

Optimization Tool and STAC Workshop – Ben Hobbs, JHU

- Ben gave a [presentation](#) on optimization and its usefulness for Bay TMDL planning.

Discussion:

- Spano: Are costs annualized?
 - Hobbs: Yes, you can break out costs any way you like. You could weight funding sources differently for example.
- Hanson: How would you characterize the number of BMPs?
 - Hobbs: Ninety nine percent of the effort is deciding the functionality of the software and actually obtaining the data.
- Hanson: How good does the cost data need to be for this kind of analysis?
 - Hobbs: The use is to suggest combinations of investments to look at in more detail. Even if the numbers are rough, you can still perform things like a sensitivity analysis to get more information if you have further concerns about the data. You can also set a target in the analysis that will consider the risks associated with data that has a high level of uncertainty. The third alternative is adaptive management.
- McGee: It seems this would be a good tool for the partnership. The Center for Watershed Protection just released a report for four counties on the eastern shore performing optimization analysis on urban stormwater.
- Currey: I think this presents an opportunity for us, because we are finally at a point where we can get immediate feedback. The idea is Phase 6 of the Watershed Model will be consistent within CAST. In the past, our models have not incorporated the management side of decisions. There has also been work done by RTI. I think part of it is bringing the modelers within the bay watershed together to see what is already out there. It is certainly a great next step.
 - McNally: I agree. James Shortle at Penn State might have done a similar analysis on the agriculture side. One concern is local watersheds and making sure we do not ignore those.
- Davis-Martin: I think the idea is to look at varying geographic scales. I was floating around the idea of a multiple objectives approach with the other Bay Agreement objectives, as well as a way to address these “unintended consequences”. So much of our decision making has been model-focused and we want to factor more monitoring into our decision making. Is there some way to use both model data and monitoring data to inform those trends?
 - Hobbs: Real monitoring data is really important for verification and to inform assumptions about your optimization model.
- G. Shenk: An important difference between this and other optimization approaches is this is talking about actually using the Bay Program’s modeling tools, so the results would be tied to the same assumptions of CAST and our other modeling tools.

- Davis-Martin: I submitted a proposal for a STAC workshop and I am looking for buy-in on this concept.
- Spano: I think it would be helpful to articulate the different elements you are including. If the workshop at least helps bring those items forward, it would be tremendously helpful even if we don't come away with a model we can press "go" on.
- Batiuk: If the partnership goes down this path, I will ensure we have the staff resources to carry out whatever changes we agree to.
- McNally: You mentioned unintended consequences, is this something the other Goal Implementation Teams would advocate for?
 - Batiuk: It is something we have always advocated for, but have yet to realize.
 - Davis-Martin: I think we could certainly factor in multiple objectives. We might at least be able to catalogue the connections between the practices and their relationship between the different Bay Agreement outcomes.
- Montali: What is the expectation for what will come out of a STAC workshop? Will it be endorsement of incorporating this into CAST?
 - Davis-Martin: The intent is to figure out what would go into an optimization tool like this.
 - Montali: My concern is it is setting STAC up to do something that is more policy than science and technical.
 - Shenk: Because it is a workshop, I think we can definitely work through those concerns.
- Volk: I think I am hearing general agreement that there is buy-in, although there are some remaining questions that need to be addressed.
- Spano: When STAC organizes the workshop, will an announcement be circulated for people to provide input?
 - Volk: Yes, there will be a steering committee.
- Gattis: I think we need to focus on getting local folks involved early.
- Davis-Martin: I haven't yet heard back from STAC on whether or not the proposal was accepted but I am hoping it will be. The first challenge will be rounding out the steering committee and having them get the right group of people involved in the workshop, certainly including those local folks.
 - Gattis: We will follow up offline.

Post-Meeting Note: The STAC workshop proposal was accepted.

EPA's Animal Agriculture Program Assessments – Kelly Shenk, EPA

- In March 2015, EPA released its completed evaluations of animal agriculture programs in New York, Pennsylvania, and Virginia. The assessments looked at the jurisdictions' implementation of federal and state regulatory programs, as well as voluntary incentive-based programs to meet the nutrient and sediment reduction commitments in the jurisdictions' WIPs. Kelly provided an [overview](#) of the assessments' findings from those three Bay watershed jurisdictions, as well as the timeline for conducting the remaining assessments in Delaware, Maryland, and West Virginia.

Discussion:

- Davis-Martin: Did you just look at the animal agriculture aspects of the programs?
 - Kelly Shenk (EPA): Yes, we did just work with animal agriculture, which was a little restrictive, but we couldn't go beyond that.
- Spano: What was the Chesapeake Bay Foundation's concern over this? This was aimed at the CAFO programs?
 - McGee: A lawsuit was settled in 2009 that had a number of commitments in it, one of which was EPA promulgating a new national CAFO rule. Since that didn't happen and in lieu of that, we asked that they conduct a number of TMDL activities related to animal agriculture.
- K. Shenk: The settlement agreement gives us deadlines and these assessments really help inform whether we are on the right track and if programmatically there is enough in place to get us there in meeting our water quality goals under the Bay TMDL.
- Hanson: Were there plans for a cross-state synthesis of these assessments?
 - K. Shenk: We will come and do these again on a regular basis, but no. You will start to see common themes, and those lessons can be very valuable. It would be helpful to look across states and find lessons learned.
- Phillips: Are there any rough numbers on what percent of manure versus fertilizer is being targeted for reductions?
 - Jeff Sweeney (EPA): We are looking at that, but we are not ready to make any statements yet.
 - John Rhoderick (Co-Chair, Agriculture Workgroup): There are the watermelon charts you can piece together.
 - Sweeney: By looking at a variety of different numbers, it seems operations are not as likely to over-apply fertilizers as they are manure.

Federal Facility Targets – James Davis-Martin, VADEQ and Jim Edward, EPA

- James and Jim [updated](#) the WQGIT on the progress towards establishing a protocol for developing federal facility targets.

Discussion:

- Spano: What are the land uses these facilities are dealing with?
 - Jim Edward (EPA): Stormwater is the primary concern.
 - Greg Allen (EPA): The federal sector is already meeting the 2025 wastewater goals. Urban stormwater really is the name of the game.
- Davis-Martin: That is a major distinction between Maryland and Virginia's approach so far. Maryland is focusing primarily on urban stormwater, while Virginia is taking a slightly broader approach where we will address any other sectors that may be present on those lands.
- Gattis: How much engagement is there with the local governments where these facilities are located? Will you be conducting that engagement in the future?
 - Edward: We are not conducting that level of engagement on the Action Team. I'm sure the federal facilities are doing that on their own, but we would be happy to talk to LGAC to see if they have suggestions for how to do that in this target setting process.

- Gattis: We have a member with a federal facility in his district. It would be great if there could be some collaboration when finding solutions. The general idea is the sooner these federal facilities can begin engaging with their host municipalities, the better.
 - Edward: I think BayFAST could help with that, at least with sharing information.
- Sarah Diebel (DoD): Is this timeline finalized or is it still being worked on?
 - Edward: It is a draft that we will be discussing at our meeting this Wednesday and hoping to finalize.
- Diebel: With regards to local government cooperation, just because no one knows about it doesn't mean it isn't happening. There is a lot of work we are doing with local governments.
- Davis-Martin: It also occurs to me that as we move forward and the federal facilities start forming WIP scenarios, they will begin driving additional collaboration because they will have very similar challenges to what the localities are currently facing.
- Diebel: We are most concerned about implementation on the non-regulated lands because we don't have the funds for those non-regulated facilities yet. We are hoping these targets will help steer us towards those objectives.
- Allen: We need to get through this year's timeline, but then the question is what we want to do with federal facilities in the WIP III planning process. We need to figure out what the expectations are for federal facilities in Phase III.

Agriculture Modeling Subcommittee Update – Curtis Dell, USDA and John Rhoderick, MDA

- Curt provided a detailed [update](#) on the decisions that resulted from the March 13th Agriculture Modeling Subcommittee meeting, as well as the overall timeline and progress in completing their specific priority tasks under the Bay TMDL's midpoint assessment. Curt also presented the revised Agriculture Land Use list. John Rhoderick and Matt Johnston gave an overview of the Poultry Litter Subcommittee (PLS) report. Both the PLS report and the [Agriculture Land Use list](#) were approved by the Agriculture workgroup on March 18th.
 - Matt's [Presentation](#)
 - John's [Presentation](#)
 - [PLS Report](#)

Poultry Litter Subcommittee (PLS) Report Discussion:

- Volk: Let's discuss the PLS report first and look for approval.
- Marel King (CBC): Since you will be using real litter data, a BMP like phytase would not be applied?
 - Matt Johnston (UMD): That's correct. You could put a similar type of BMP in your Phase III WIPs, but it would be for planning scenarios, not in progress reporting.
- Dianne McNally (EPA): Did you receive any dissenting opinions on this report at the Agriculture Workgroup level?
 - Johnston: No, there was a lot of back and forth at the PLS and AMS level, but once it received their approval, there have been no substantive comments.
- Spano: Is there anything that would skew these results, such as market forces?

- Johnston: Absolutely. One is the price of chickens and the sizes of them. The other thing is the price of grain. If corn is the predominant grain, there is a lot of nitrogen and phosphorus in corn, but if that changes, things could be affected.
- Davis-Martin: The plan for continued engagement of the integrators will be really key. The more we can cooperate with them, the better. Especially for data gathering.
 - McGee: I agree.
- Volk: Is there a decision to approve the Poultry Litter Subcommittee report?
 - No concerns were raised

DECISION: WQGIT members approved the Poultry Litter Subcommittee report.

- Davis-Martin: Matt talked about agreement between manure and litter. There is also feed debris and bedding material is also different. We haven't factored in any nutrient content based on bedding material correct?
 - Johnston: It is inherent in the as-excreted value for layers and pullets.

AMS and Agriculture Land Uses Discussion:

- Tesler: Please clarify what you mean by best three out of five when taking a running average?
 - Curt Dell (Chair, AMS): Highest 3 yields out of every 5 years. It is just for setting yield goals.
- Volk: Going back to the land use list. It was approved at the Agriculture Workgroup face-to-face meeting with caveats, correct?
 - Dell: The main caveat would be the pervious and impervious farmstead categories. We may not be able to populate those if the imagery methodology isn't available.
 - Johnston: It will be rural development in urban if we can't get it added as an agriculture land use.
- Lewis Linker (EPA): Can you explain the graph on the final slide?
 - Johnston: Don't think of it as uptake. For up to 50% of corn need, you are only applying to vegetables and corn. Then once you hit 50%, then you start applying to the other land uses. For every additional 1% of corn need, you are meeting 2% of hay and pasture needs. So they are spread decision rules.
- Volk: I want to make sure timing-wise we are still moving forward. Can anyone address the loading rates timeline?
 - Dell: We have a subgroup working on that now. We have a couple more calls this week so we can get at least a first framework to the Modeling Workgroup on April 22. Tom Jordan from the Smithsonian is the chair of that subgroup.
 - Rhoderick: These loading rates are just preliminary to help the modelers. We are behind on that deliverable.
- Linker: The Modeling Workgroup also has a deliverable to the WQGIT. So we have got to stick to that agenda no matter what. We may need to make some guesses where we don't have anything.
 - Batiuk: We are just asking for incremental comfort-easing decisions. We will be making adjustments as we go along.

- Davis-Martin: So has there been discussion on what BMPs will have to be applied on each of these land uses? We don't track BMPs to this specific of a scale. How will that play out?
 - Johnston: The decision rules when determining these land uses were related to whether the nutrient applications were significantly different and whether the BMPs applied to those crops would be significantly different. I would not suggest any state give us data that specific. Just give it to us on "row crops" like you were, and we will distribute it appropriately. You will actually get output for a single year with these specific land uses but you can roll those up to row crops.
- Davis-Martin: Why do we lump some crops but break out others?
 - Dell: The nutrients can be different, so those soil covers and loading rates can be different. Especially for cover crops.
 - Davis-Martin: But we are lumping BMPs into row crops when we report them, so why are we breaking land uses out by BMP distinctions?
 - Dell: This gives us more accuracy on nutrient inputs.
- Davis-Martin: I don't see hay without nutrients. Is that considered agricultural open space now?
 - Johnston: Yes.
- Davis-Martin: I have heard that you shouldn't be lumping all specialty crops together.
 - Dell: The nutrient loading rates can be different by crops, so that may address what you are talking about.
 - Johnston: To be clear the inputs can vary by crop.
- McNally: How does all of this separation help the states move forward with implementation?
 - Johnston: I don't know if it will help with their reporting of BMPs. I do hope it will allow us to see trends over time in changes in crops, where we couldn't see those trends before.
 - Dell: We were trying to improve the accuracy of the inputs.
 - Montali: Really anything we do in the name of science has an implementation benefit.
 - Spano: I think you should craft that message as you are doing it. Otherwise it sounds like a database exercise.
- Volk: Are there any other concerns with the agriculture land use list? I would like to place an emphasis on timing, and making sure this keeps moving forward.
 - No concerns were raised.

DECISION: WQGIT members approved the list of Agriculture Land Uses and accepted the caveat that the pervious and impervious farmstead land uses may not be used if the imagery is not available to support them.

Revised Land Use Loading Rates – Olivia Devereux, Devereux Consulting

- Olivia provided a [briefing](#) on the revised land use loading targets for the approved land use categories in the Phase 6 Watershed Model. The Modeling Workgroup will approve the loading targets during their April quarterly meetings.

Discussion:

- McNally: Are we updating loading rates from the Phase 5.3.2 Model or starting from scratch?

- Olivia Devereux (Devereux Consulting): I would say it's more like starting from scratch because we have very different land uses, so we want to make sure we have the latest science that reflects our latest model.
- Currey: Also keep in mind that while we set these targets, they still have to be calibrated to monitoring data.
- Spano: What is being decided here?
 - Devereux: The land uses have been decided. This is about the export rate targets for each of these land uses. The Modeling Workgroup will look at all of these targets and work on the calibration between April and July to bring it back to their quarterly meeting in July.
 - Volk: We agreed in October, 2014 that we would approve the land use groupings but the Modeling Workgroup would make the decisions on the loading rates.
- Spano: Do you address timeframes? Some of these land uses, like construction, are very dynamic.
 - Devereux: They are averaged annually. States track construction acres in different ways, and the way they report their acres over the course of the year may vary.
 - Johnston: Average continuously disturbed acres over the course of the year is what they report now for construction.
- Davis-Martin: Why is there a nitrogen spike in harvested forests?
 - Devereux: There were some studies coming out of New York that suggest that. It could be due to nutrient application to start forest regrowth but that needs to be clarified. These might still move around a little.
- Davis-Martin: We should bring in other models to gain a little more confidence.
- Spano: These are multiple lines of evidence, how do we handle differences in those numbers?
 - Currey: That conversation is already happening. I think the concept was that in some cases, the best approach is just to take the average.
 - G. Shenk: Because you can't validate these models exactly, sometimes averaging is the best approach. These models often are just different approaches. It has been shown that the average of many models is more accurate than any single model.
- Spano: There are policy implications to shifting the loads around a lot. I'd like to follow up more offline.
- Volk: If there are further questions, please direct them to Olivia offline.

Climate Change Update and Next Steps for Local Impoundments – Lew Linker, EPA

Lew provided an update on the climate change analyses currently underway. He addressed tidal water temperature, and sea level rise. In addition, Lew discussed the next steps for collecting data on local impoundments.

Discussion:

- Davis-Martin: I thought we were looking at climate change to see if additional planning was needed to account for its impacts by 2025?
 - Linker: So we can do interpretation of data points, but we need to be able to get a strong enough signal while still getting within a reasonable planning horizon. The problem with doing 2025 is we would not be able to detect the responses. We can then make extrapolations from that point.

- Spano: This is consistent with the TMDL?
 - Linker: This would be with the TMDL loads. This is changing the hydrology and we kept the TMDL loads constant. We did not change the temperature of the input for the Bay model, but that was a mistake on our part.
- Spano: I caution against using latitudes and longitudes for the reservoirs.
- Volk: For the local impoundments data, you are putting this list together and you will share it with the jurisdictions and ask for any additional data?
 - Linker: We want to know if there are any of these special cases that I outlined in my presentation. We think we have captured everything else.
- Davis-Martin: Are we also trying to update the SPARROW model assumptions with regards to discharges?
 - Linker: I think that would be a really big ask. The info we have is very sparse. For many of these we just have a latitudes and longitudes.
- Davis-Martin: So we are increasing our represented reservoirs but we are assuming the additional 4,000 all behave the same way except for a few special cases?
 - Linker: All would have the same relationships, with regards to surface area or volume.
 - Davis-Martin: I think because they will all be treated the same, we need to at least put this list out there and ask for better data if anyone has it and wants to provide it. We can put the data out there and use SPARROW as the default.
 - Batiuk: I agree.
- Linker: So spills or discharges could be allowed if there were records to show it?
 - Davis-Martin: Yes.
- Volk: Please reach out to Lew if you have any other questions.

ACTION: The WQGIT will distribute the proposed list of reservoirs and local impoundments and inform jurisdictions and localities that they may provide more accurate data on spills or discharges from their impoundments if they have that data available.

Adjourn

Next WQGIT Conference Call:

Monday, May 11, 2015

1:30-3:30pm

List of Meeting Participants

Attended In-Person

| <i>Member Name</i> | <i>Affiliation</i> |
|---------------------------------|--------------------|
| Jenn Volk (Chair) | U of Delaware |
| James Davis-Martin (Vice-Chair) | VA DEQ |
| Lucinda Power (Coordinator) | EPA |
| David Wood (Staff) | CRC |
| Emma Giese (Staff) | CRC |
| Beth McGee | CBF |

| | |
|------------------|---------------------|
| Larry Jennings | CCA MD |
| Olivia Devereux | Devereux Consulting |
| Gary Shenk | EPA |
| Lew Linker | EPA |
| Jeff Sweeney | EPA |
| Dianne McNally | EPA |
| Rich Batiuk | EPA |
| Jim Edward | EPA |
| Greg Allen | EPA |
| Katherine Antos | EPA |
| Kelly Shenk | EPA |
| Ben Hobbs | JHU |
| Bruce Michael | MD DNR |
| John Rhoderick | MDA |
| Lee Currey | MDE |
| Dinorah Dalmasy | MDE |
| Tanya Spano | MWCOG |
| Peyton Robertson | NOAA |
| Marian Norris | NPS |
| Norm Goulet | NVRC |
| Ward Slacum | ORP |
| Julie Reichert | ORP |
| Ted Tesler | PA DEP |
| Matt Johnston | UMD |
| Jennifer Greiner | US FWS |
| Scott Phillips | USGS |
| Jeremy Hanson | VT |

Phone Participants

| <i>Member Name</i> | <i>Affiliation</i> |
|--------------------|------------------------|
| Seung Ah Byun | Brandywine Conservancy |
| Jessica Blackburn | CAC |
| Trenton Syscavich | CCA MD |
| Emilie Franke | CRC |
| George Onyullo | DDOE |
| John Schneider | DE DNREC |
| Hassan Mirsajadi | DE DNREC |
| Ann Baldwin | DE NRCS |
| Sarah Diebel | DoD |
| Suzanne Trevena | EPA |
| Chris Day | EPA |
| Pat Gleason | EPA |
| Rebecca Hanmer | Forestry WG |
| Jenny Tribo | HR PDC |
| Jamie Mitchell | HRSD |

| | |
|-----------------|---|
| Ross Mandel | ICPRB |
| Mary Gattis | LGAC |
| Lindsay Dodd | MD Assoc. of Soil District |
| Rachel Rhodes | MDA |
| Doug Ashline | NYS DEC |
| Ron Korcak | USDA-ARS |
| Curt Dell | USDA-ARS |
| Mike Langland | USGS |
| Lara Kling | VA DEQ |
| Russ Baxter | VA Office of the Secretary of Natural Resources |
| Eric Aschenbach | VDH |
| Brian Benham | VT |
| Dave Montali | WV DEP |
| Alana Hartman | WV DEP |
| Teresa Koon | WV DEP |