CHESAPEAKE BAY PROGRAM
WATER QUALITY GOAL IMPLEMENTATION TEAM
December 12, 2016
Conference Call Summary
Materials: http://www.chesapeakebay.net/calendar/event/24554/

Actions and Decisions:

Action: WQGIT members should send specific topics they would like addressed in an upcoming 'Bay TMDL 101' informational session to James Davis-Martin, Lucinda Power, and Lindsey Gordon.

Decision: The WQGIT approved the Impervious Disconnection BMP Expert Panel's final draft report, with the understanding that the following edits to the report will be made: clarification that the stormwater conveyance system definition does not include combined sewer service systems; clarification of the application procedures for the default approach related to whether this approach will be applicable into the future; and a revision to the title of the report to more clearly emphasize the crediting of soil amendments. The WQGIT requested a briefing on the final changes that will be incorporated into the report.

Welcome/Confirm Call Participants/Workgroup Updates – James Davis-Martin, Chair

- During the last meeting, it was suggested that the WQGIT hold a review of the Bay Program TMDL and modeling system – a 'TMDL 101', scheduled tentatively for January, 2017. If members have specific topics they would like presented, they should send those suggestions to James Davis-Martin, Lucinda Power, and Lindsey Gordon.

Action: WQGIT members should send specific topics they would like addressed in an upcoming 'Bay TMDL 101' informational session to James Davis-Martin, Lucinda Power, and Lindsey Gordon.

Impervious Disconnection BMP Expert Panel Report – Bill Stack, CWP, Reid Christianson, CWP, and Jeremy Hanson, VT

Jeremy Hanson and Bill Stack presented the Impervious Disconnection BMP Expert Panel's draft final report and recommendations.

Discussion:

- Sarah Diebel: I noticed that you have, within the computational method, a specific curve to address the removal rates, but I didn't see anything in the presentation that discusses the removal rates if you use the simple method. Is that in the report?

    - Stack: Yes – we weren't sure these curves were going to be applied in Scenario Builder, so the only thing you would be reporting here are inches of runoff per impervious cover. We just wanted to show how you could translate runoff captured/impervious cover to N removal rates.
    - Hanson: For both methods, you just report information that you would report for other practices. This is clarified in the technical appendix.
- Dave Montali: Regarding option B, I thought I read that the default value was only applicable to past practices prior to approval of this report. This suggests that as we go on, you could continue to use the default into the future.
    - Hanson: I believe that is the idea, because with past practices the difficulty is that you may not have all of the information requested.
    - Montali: So the default is available for the future?
    - Hanson: Yes.
    - Montali: You may want to clarify this in the report, because some sections are misleading.
    - Stack: We will review and clarify those portions of the report; thank you for that comment.
- Tanya Spano: Nice job with this report. For clarity's sake, in the report itself, the definition of the conveyance system does not explicitly state that it's referring to a stormwater conveyance system, so you may want to make sure this is clarified going forward. This way we would avoid confusion between combined stormwater systems.
- Nicki Kasi: One state (MD) commented wanting to take a different approach?
    - Stack: Correct – they wanted to limit the use of this curve, and provide their own inputs.
    - Hanson: MD would have limited it to the specific conditions listed in their stormwater manuals.
    - Kasi: So their protocols would be different?
    - Dinorah Dalmasy: I understand our comments were based on the fact that the expert panel's recommendations were less stringent than current state standards.
    - Kasi: How would you prove that?
    - Dalmasy: It's been in use for several years by MDE; it was a protocol developed by experts, but I can't get into technical details at the moment.
    - Hanson: MDE's staff reached out to outside experts, and we've added this information into Appendix G. Earlier this year, they provided that documentation and information to the USWG, elaborating on their concerns and explaining their methods. They also worked with myself, Reid, and Bill as needed to provide more information and comparisons.
- Davis-Martin: So when MD will be using this one curve, then in MD you can only take credit if the organic matter content is 3%? Based on this curve?
    - Stack: Correct.
    - Davis-Martin: So where others get to take credit for lower levels of organic matter, this is not allowed in MD.
    - Stack: Correct.

    - Davis-Martin: So that would be an example of it being more stringent, correct? You wouldn't provide credit for those lower levels of organic matter.
- Ted Tesler: So is organic matter being tested at each one of these installations?
    - Stack: If you're using the computational method, then yes. But if you're using the simpler method, then you would be estimating it from the soil survey, so no.
    - Tesler: Do you know if MD is doing that specific calculation for each of their installations?
    - Dalmasy: I can ask and check back with you.
- Tanya Spano: The WWTWG has protocols where states are allowed to have different guidelines as long as they are more stringent than the baseline. So being different essentially has to be stricter.
- Davis-Martin: How do you derive a percent reduction from these curves?
    - Hanson: This graph shows inches treated/impervious acre, so you plug this information into the equation to determine the efficiency.
- Davis-Martin: Does this practice require a filter strip or some other erosion-control method?
    - Stack: I believe in our qualifying conditions, we do require some type of method to reduce erosion losses.
- Sarah Diebel: Regarding MD's method – there are some other options on slide 7, and I'm wondering if those curves apply to initially medium or initially tight. So MDE's method doesn't differentiate whether it's loose, tight, or medium?
    - Stack: They're just using this one slide to make some very conservative qualifying conditions, and they're not giving themselves the option of using smaller percentages of organic matter, for instance.
- Diebel: It seems like this is a removal rate for disconnecting existing impervious area, coupled with soil amendments. It doesn't seem to me there's any type of credit without amending the soil. Is that correct?
    - Stack: You can also get credit through treatments in the network.
    - Dalmasy: For future expert panels, originally MD (specifically MDE's stormwater program) requested this panel deal with low-density urban areas. It ended up being just like a soil modification expert panel, and what Sarah has identified is still an unresolved issue for MD. We want to know how to treat low-density urban areas.
    - Stack: In our charge, we were tasked to look at treating disconnected impervious cover on amended soils. During this process, it became obvious that perhaps there should be another panel that could take this information to develop a stand-alone BMP for adjusting soil amendments separately. This is one of our recommendations.
- Davis-Martin: What if a soil analysis reveals that amendments are not necessary; does a disconnected area still get credit?
    - Hanson: We realized that there needed to be an actual management action associated with this BMP, otherwise you risk crediting things that are explicitly credited in the calibration.

    - Stack: The only way you would receive credit is if that structure was transitioned onto soils that weren't compacted. So you could receive credit using the urban filter strip method. This panel report is limited to the tighter, compacted (C&D) soils that need to be amended first.
- Sarah Diebel recommended the title of the panel report be revised to reflect that credit is given for amending soils.
    - Davis-Martin, Dalmasy, and Spano agreed with the suggestion to consider renaming the title of the report.
- Dalmasy and Spano expressed support for approving the report in light of the suggested edits to be made:
    - Clarification of stormwater conveyance system (is not CSS, but is stormwater conveyance), revision of the title of the report, and clarification of the application of the default approach (this default approach is creditable into the future after report approval, and is not limited to practices installed prior to report approval).
- Nicki Kasi requested the WQGIT be briefed on the changes that will be made to the final version of the report.

Decision: The WQGIT approved the Impervious Disconnection BMP Expert Panel's final draft report, with the understanding that the following edits to the report will be made: clarification that the stormwater conveyance system definition does not include combined sewer service systems; clarification of the application procedures for the default approach related to whether this approach will be applicable into the future; and a revision to the title of the report to more clearly emphasize the crediting of soil amendments. The WQGIT requested a briefing on the final changes that will be incorporated into the report.

Animal Waste Management Systems BMP Expert Panel – Jeremy Hanson, VT

Jeremy Hanson, VT panel coordinator, provided a brief overview of the AWMS BMP Expert Panel report that was released on 12/6/16 for Partnership review. Comments are due to Jeremy Hanson (jchanson@vt.edu) by **COB Monday, December 12**. The WQGIT will be asked to approve the report on Monday, December 19.

Discussion:

- Beth McGee: How is ammonia captured in here? Or is that outside the realm of your consideration?
    - Hanson: Regarding nutrients, we focused on the mass of manure itself, and then allowed the modeling assumptions to determine the nutrients coming from that. We didn't have enough information to provide explicit nutrient breakouts the way we would have liked to, so we focused on the manure balance.
    - Rich Batiuk: Both the Manure Treatment Technologies panel and the Ag Modeling Subcommittee had to deal with volatilization, as this item covered

multiple BMPs. So we have documentation on how volatilization is treated, and the practices that affect volatilization.

Conservation Tillage BMP Expert Panel – Mark Dubin, UMD

Mark Dubin, AgWG coordinator, provided a brief overview of the Conservation Tillage BMP Expert Panel draft report. The WQGIT will be asked to approve the report on Monday, December 19.

Discussion:

- Beth McGee: You mentioned there was a lot of variability in P, but that the group broke it out by drainage patterns. Did that then make the relationships more consistent? And I think you stated that some values were negative in certain instances, but I noticed that none of the efficiencies were 0 or negative, so I'm wondering how those studies were incorporated?
    - Dubin: By parsing things out by drainage class, this reduced the variability of values shown in the research. The negative values were combined with the positive values to derive an average value within that soil drainage class. So some values in the table are relatively low because of this.
    - McGee: We made a late comment, and I'm wondering whether it's addressed – we noted that in the historic versions of this BMP, there was the notion of losing more N in high-residue situations. The panel gave some citations to support this, but didn't go into the details of how they changed that perception. Did you speak to why there was more N?
    - Dubin: We are going to address that in the final version of the report.
- Davis-Martin: So we have different values based on HGMR. A lot of this data is typically reported at the county scale – how do these HGMR regions line up with counties, and how are we handling county-scale data when it's being split between HGMRs?
    - Dubin: The model has been using HGMR zones for years, and already has county areas assigned to HGMRs. So we've used this structure for panel reporting in the past, and it will be consistent with the new Phase 6 modeling structure.
- Davis-Martin: I've heard about a technology called turbo-till – where does that fit into this schema of different tillage approaches? A few farmers I've talked to use and consider themselves no-till. But when you see the landscape, it's basically bare soil.
    - Dubin: The terminology has been a concern because of that. People go by what the tillage instrument is labeled as, and not what the results are. Just because someone does a turbo till does not align them with a particular tillage class. This report requires information on what the actual coverage of the residue on the soil surface is for crediting this BMP.
- Tanya Spano: Does the report have anything that reflects how precipitation changes, or is it presumed that whatever precipitation patterns that occur are coming out of the other bay modeling efforts?

- Dubin: The bay model looks at normalized precipitation patterns, representative of multiple years. So that's what this is based on.

Cover Crops BMP Expert Panel – Mark Dubin, UMD

Mark Dubin, AgWG coordinator, provided a brief overview of the Cover Crops BMP Expert Panel draft report. The WQGIT will be asked to approve the report on Monday, December 19.

Discussion:

- Beth McGee: When are comments due for this report?
  - Dubin: Thursday would be ideal for comment submission.
- Davis-Martin: So the Phase 6 panel did not add any additional crop species or change what's being planted in our existing cover crop input deck? It didn't change any methods or timing for planting, but it did change the ability to add nutrients in the fall and still receive some credit, and it added commodity cover crop efficiency values.
  - Dubin: Correct – the panel added an attribute for fall manure applications for traditional cover crops only. They didn't include any new species of cover crops, but they also added an attribute for mixtures – they changed the percentage of grass and legumes in a new category. With commodity cover crops, they expanded it slightly by including triticale as an eligible species.
- Davis-Martin: As a result of this panel, what's the new grand total of different cover crop combinations creditable in the model?
  - Dubin: We're still having some discussions on this with the modeling team and the panel, and we'll be discussing this in more depth on Thursday at the AgWG meeting.

Manure Incorporation/Injection BMP Expert Panel – Mark Dubin, UMD and Curt Dell, USDA/ARS

Mark Dubin, AgWG coordinator, provided a brief overview of the Manure Incorporation/Injection BMP Expert Panel draft report. The WQGIT will be asked to approve the report on Monday, December 19.

Discussion:

- Davis-Martin: Thinking about this big-picture, manure is applied according to a nutrient management plan, and that plan calculates the amount of manure to apply based on N need, and I assume factors in your ammonia loss based on your application technique. Is all of that true?
  - Dubin: Correct – so you would calculate the amount of nutrients available for crop use, and subtract off the ammonia losses based on time since incorporation or injection.

- Davis-Martin: My point is that if you're using one of these techniques, then you're probably applying less than if you were surface applying because you don't have that surface loss. Are we accounting for that reduced application rate when we capture ammonia losses?
- Dubin: This intersects with the Nutrient Management Panel report, which addressed incorporation of inorganic fertilizers, and did not address credit toward organic sources. That was in deference to the work of this panel, and in essence we're creating a new BMP out of the old version of Nutrient Management.
- Davis-Martin: I still feel like the benefit of actual reduction in application needed may be missed here, because of the reduction in ammonia loss.
- Dubin: Yes – and what the report addresses is that if you're conserving more N by either injecting or incorporating, the model will represent that as a reduced need for fertilizer inputs. It will increase your utilization of organic inputs, and decrease your utilization of inorganic, and since the model balances those two it will net reduce your inputs in Scenario Builder.

Participants

Name	**Affiliation**
James Davis-Martin	VA DEQ, WQGIT Chair
Teresa Koon	WV DEP, WQGIT Vice-Chair
Lindsey Gordon	CRC
Mark Dubin	UMD
Jeremy Hanson	VT
Rich Batiuk	EPA
Ann Jennings	CBC
Beth McGee	CBF
Joe Wood	CBF
Bill Stack	CWP
Dave Montali	Tetra Tech
Alana Hartman	WV DEP
Dinorah Dalmasy	MDE
Mary Searing	DOEE
Ann Carkhuff	EPA
George Onyullo	DOEE
Jill Whitcomb	PA DEP
Nicki Kasi	PA DEP
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