CHESAPEAKE BAY PROGRAM
WATER QUALITY GOAL IMPLEMENTATION TEAM

July 24, 2017 CONFERENCE CALL

Conference Call Phone Number: 866-299-3188 **Code:** 267-985-6222

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Summary of Actions and Decisions:

Action: The AgWG will approve an E3 definition for Phase 6 at their August 17 meeting, and present their recommendations to the WQGIT for approval at the August 28 WQGIT conference call.

Action: The five GIT funding proposals were distributed via email to the WQGIT for feedback on prioritization. The four highest priority project proposals will be submitted to the Management Board for review by COB Friday, August 4.

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

- Announcements and Reminders:
  - No new content can be uploaded to Chesapeakebay.net until July 31. Please contact Michelle Williams and Lindsey Gordon with any immediate content requests.

Phase 6 Agriculture E3 and No Action Scenarios–Mark Dubin (AgWG Coordinator)

The Agriculture Workgroup (AgWG) Chair and Coordinator presented a revised draft Agriculture E3 and No Action definition for Phase 6 scenarios.

Discussion:

- Mark Dubin: This is not a final E3 and No Action for agriculture, it's just a revised draft. We will be coming back to this for approval of a final version at a later AgWG meeting. Thanks to Peter Claggett and Lindsey Gordon for getting BMP domains together on this to inform E3. Estimates for last year were very close to the imagery, so the estimates are very accurate. We also have a set of BMPs that are land use changes from agriculture to a retired land use. Retired land has a cap of 15% of the watershed. We have developed manure injection and incorporation as new BMPs that are added into Phase 6 from last year. Dry manure injection systems need more work, and in general manure needs more work to be incorporated into the Phase 6 E3. We are also developing a way to address manure transport out of the county of interest. Manure treatment systems are also being looked at. Cropland irrigation has an existing panel that is still developing recommendations. That is on the list but as a placeholder at the moment. Non-urban stream restoration is also new in Phase 6 E3 for agriculture. That domain is 15% of stream miles on agricultural lands. The last one is

shoreline erosion control in agricultural production areas that intersect with tidal shoreline acres.

- Beth McGee: Does that include forested buffers in the 15% land retirement?
    - Dubin: 15% represents buffers on cropland, not all land. That's buffers, tree plantings, forest plantings, and grass buffers.
- Dave Montali: On the 15% cap for land retirement, what scale is that implemented at?
    - Dubin: That is being applied across the watershed where availability of those land use conversions exist.
    - Montali: So that wouldn't be within a jurisdiction. Does it all work out in the math?
    - Dubin: That's at the watershed scale.
- Montali: What does large mean in animal operations for CAFOs?
    - Dubin: We are looking at the type of livestock, and we don't split out CAFOs versus non-CAFOs. Large is type of animal, not operation scale.
- James Davis-Martin: Why is 30 meters (100 feet) and not 10 meters (35 feet) our standard for forest buffers?
    - Dubin: 35 feet is the bottom end for riparian buffers to get buffer functionality to address upland loads. If below 35 feet, it's a land use change but does not affect loading from upland pollution.
    - Montali: What about land that's already partially buffered but is assumed not buffered since it's not at the 35-foot (10 meter) width?
    - Dubin: E3 represents the highest efficiency practice that can be implemented, so the 30 meter is more representative of that. A narrower buffer still provides a benefit, but at a lesser value than the maximum practice the Partnership has approved. This is for pasture acres—riparian buffer in a pasture.

EDIT: More information on forest buffer practices can be found in the draft Forestry BMP Information Packet for Phase III WIPs.

    - Davis-Martin: Why are traditional versus commodity cover crops on 100% of the grain production land?
    - Dubin: Those are based on NAS acres.19% are defined as commodity small grain production, the other 81% are defined as non-small grain commodity crops.
    - Montali: The winter grain cover crops don't only have requirements of just winter grains—what about the other requirements of fertilizer applications, tillage, and so forth?
    - Dubin: Traditional cover crops restrict fertilizer application in the fall, and back to a regular fertilization schedule in the spring. Commodity cover crops are allowed to put down nitrogen in the fall, applied in more modern production systems. The difference is that traditional cover crops don't have that nitrogen application in the fall.
- Sarah Diebel: At the October 2016 Face-to-Face, a number of BMPs were listed for Phase 6 that are missing (e.g., grass buffers, etc). Why did those BMPs drop off?
    - Dubin: We are looking at the more efficient BMPs, so a forest buffer is more efficient than a grass buffer would be. Some of the BMPs that dropped include swine and

phytase, since those nutrient values are directly represented in the front end of Phase 6 in the model itself, rather than being represented in the back end through BMPs.
    - Diebel: Why did tree planting decrease to 1%?
    - Dubin: That was a recommendation from MD, to reduce tree planting from 3 to 1%.
    - Diebel: How were BMPs and land use availabilities determined when building this scenario?
- Norm Goulet: We did this with fixed urban lands. We did not look at existing forest acres.
- Dubin: The scenario has limitations built in as to where BMPs can be applied. We're pulling in domains and land use data that also helps inform that scenario.
- Sally Claggett: On tree planting and 1%, the data for tree planting for VA has reported 19,000 acres.
    - Dubin: In E3, tree planting does not include buffers, it's just trees planted by themselves in fields.
    - Claggett: Understood, but it seems like 1% is on the low end for E3.
    - Davis-Martin It's a bit low, but when taken with all the retired agricultural land at 15%, I think that's plenty from my perspective—maybe too much.
    - Dubin: Land retirement is a long term commitment for agricultural land, so we want to keep it feasible.
    - Davis-Martin The actual land conversion up till 2012 has already been counted for in the model, so the retirement in E3 is all on top of what's already been done.
- Nicki Kasi: Why is 100% of all the land on cover crops? It seems like too much.
    - Dubin: In E3, we have to put in 100% of the implementation that is possible on the condition that you have full funding, full participation, full resources.
    - Kasi: So that should be 100% implementation among all the sectors as well, right?
    - Davis-Martin: I'm with you, I don't think that this represents equity between all the sectors. AgWG might have to go back and reinterpret E3 for equity.
- Goulet: E3 reflects all that's technically feasible, and it's simply not technically feasible to implement stormwater BMPs on all urban land uses.
- Spano: The scale of implementation in E3 is supposed to be rational and technically possible. If there is a rational issue, let's talk about that.
- Dianne McNally: Was 100% used in 2010 for the last round of E3?
    - Dubin: We have used 100% for many of these BMPs for decades now. That's a reflection of what we have viewed as the definition of E3 for decades now.
- Kasi: What about the other sectors?
    - Davis-Martin: Those sectors also have used the same implementation scale that they have used for decades—since the Bay model began.
- Davis-Martin: Mark, have you run E3 through all the progress years available?
    - Dubin: No, we haven't had time to run those yet.
- Davis-Martin: I'd suggest that we take some time to look at that for comparison. Can you also run through the timeline for finalization?
    - Dubin: Timeline is connected to finalizing Phase 6 during the review period. If there are changes in Phase 6 then E3 can change. Panel recommendations may also have to

be considered. The AgWG will run some scenario options and seek approval by the WQGIT in September/October time frame.
    - Davis-Martin: We don't have that much time to wait for a final E3 scenario. We need to start reviewing planning targets in October.
    - Power: We need E3 finalized before the WQGIT F2F in late September so we can develop draft Phase III WIP planning targets.
    - Linker: We need to have the final E3 definitions in early September at the latest so that the modeling team can develop draft Phase III WIP planning targets.
    - Davis-Martin: End of August is all we can give you, Mark, unless you wanted to request a schedule change from the PSC.
    - Dubin: We won't be requesting any changes to the schedule to the PSC. We will try to get this done by early September.
    - Davis-Martin: We need this by August 28, the last August WQGIT call. If you can't do that, we need a workaround with some kind of placeholder for the Phase 6 model.
- Bill Angstadt: I want to go back to Nicki's point about 100% implementation being inequitable. Some of these BMP efficiencies for agriculture are very high, whereas for urban, the efficiencies are much lower. We are asking agriculture in E3 to reach 88—90% for BMP implementation, and urban is about half of that. There is an inequity that needs to be addressed.
    - Davis-Martin: Thanks Bill. That's in Phase 5, so efficiencies changed somewhat, but we should think about not only what's technically feasible but what's doable in general.
    - Angstadt: I think there's a policy decision that needs to be made in Phase 6 of whether we want some kind of equity in source sectors for E3.
    - Davis-Martin We have talked about wanting equity between sectors. There are different ways to achieve that, but my preference is to scale agriculture rather than open up other E3 definitions in other sectors.
    - Spano: Have we said that equity is each sector doing the exact same reductions, or is equity that each sector should do 100% of what is technically feasible in each sector without regard to what the other sectors are capable of?
    - Davis-Martin: There are a couple advantages to exploring the approach to making sure there's equity in the controllable load. Controllable load is the difference between no action and E3. In my mind, as long as we have a range of loads, we can move to an all forest scenario as an upper bound to distribute load to basin states, rather than E3.
    - Diebel: An all forest just doesn't make sense. You're converting all roads, buildings, agricultural land to forest and it just can't happen. E3 isn't irrational, it's just the maximum possible of controllable load reduction.
    - Spano: It's not just that forest wouldn't make sense, it's just that it can't physically be done. E3 needs to be something that can physically be done.
    - Montali: We are coming down to the wire, and we don't have time for all the squabbling. Maybe moving to all forest will be less contentious and we can get it done faster.

    - Davis-Martin: Let's put E3 back on the table, and we'll ask AgWG to give us some possible scenarios in August to look over.
    - Dubin: I would like to request some more guidance from the WQGIT to get the E3 scenarios in.
        - Davis-Martin: As Norm suggested for the urban sector, maybe look at feasibility in terms of limits of favorable geology and other physical limitations for BMP implementation.
- Davis-Martin: We are not trying to put E3 in the realm of reality here, we are only using it as a comparison point.
- Goulet: It's not an aspect of equity, it's just feasibility. 100% is objectively impossible, so I would urge you to go back and review that rather than calling into question other sector E3 definitions that have already been approved.
- Davis-Martin: Don't put in 100% on these practices when you come back in August or we will have the same conversation.
- Dubin: We will bring a revised version for consideration in August.

Action: The AgWG will approve an E3 definition for Phase 6 at their August 17 meeting, and present their recommendations to the WQGIT for approval at the August 28 WQGIT conference call.

Structuring Review of Draft Phase III WIP Planning Targets—James Davis-Martin, Chair and Lucinda Power (EPA CBPO)

The WQGIT discussed how to structure the upcoming Partnership review of the draft Phase III WIP planning targets, including a structured timeline for reviewing and exercising the draft planning targets.

Discussion:

- Power: We want to begin discussing what information and resources folks need to start getting ready for reviewing the draft Phase III WIP planning targets this fall, particularly in the context of developing local planning goals.
- Davis-Martin: VA, WV, and NY felt that extended review of the planning targets was really necessary. I am inviting those folks to chime in.
- Montali: We are a special case state, so we don't want to have to be locked into more implementation than we would be able to do as a headwater state. We were previously granted an exception as a special case in the Phase II WIPs, but we don't know that Phase III will let us do that.
- Davis-Martin: James River chlorophyll and NY were also special cases last time, and they may need extra considerations this time as well.
- Kasi: From PA's perspective, we want to come up with local planning goals, run modeling and analysis, start running what-if scenarios over the planning target review period to see if there are fatal flaws or whether it's possible to achieve the draft planning targets that are released for review. We will have to look at what's realistic and then go from there.
- Davis-Martin: Realistic by 2025 or another time frame?

- Kasi: That's another issue we need to discuss - whether we have to have full implementation or achieve full reductions by 2025.
- Davis-Martin: The common thread is trying to understand where the targets fall in comparison to the Phase II WIP planning targets and the most recent progress year.
- Kasi: In our Phase II WIP, we put down what we could, but that may not be a good measure of where we're starting from now.
- Davis-Martin: No, but it might give you a good sense of what you have left to cover to get to your nutrient and sediment targets, and what the lift might be to get there. We could have that hockey stick chart shown if that would be helpful.
- Montali: We would want to see if it makes sense for us to be asked to do more in Phase III after we know what the planning targets are and we see how far the Phase II WIP II gets us.
- Kasi: I don't know if the Phase II WIPs would be helpful for us. That might hurt us in PA and not lead to buy in from others as to where to go in our Phase III WIP.
- Spano: I would like to see progress on air deposition as well. Part of what the partnership needs to understand is to see where we have been successful at reducing loads, and look at EPA's progress as well. It could be incorporated into review of the planning targets as partners can see where they might fall short or where they might be more successful. For instance, WWTWP upgrades might be easier to implement, but current levels could skew the numbers if growth projections aren't accounted for.
- Davis-Martin: Air deposition may be most applicable in annual progress scenarios—maybe we should use the most recently available air values to do that.
    - Lew: The view we take is that atmospheric deposition is a national program, and it has made a base level of reductions by 2010 that we can bank on by 2025. But we can certainly update CMAQ with new ammonia data and present that to the WQGIT later this summer.
- George Onyullo: One thing that might help is that special considerations should be summarized from Phase I and Phase II to get a sense of what might be done for Phase III. We might also want to look at the relative share for states in Phase I and Phase II, to get a comparison value for the share in Phase III. We might also want to get that updated analysis of Conowingo cost-benefits to consider as part of the planning target review period.

Priorities for Goal Team Funded Projects –Greg Allen (EPA CBPO)

The WQGIT will review submitted project ideas from members and workgroups and agree on the three top priorities for project funding prior to the August 4 deadline. Proposals discussed are available on the calendar page.

Discussion:

- Greg Allen: We are in the 4th year of GIT-funded projects. We need to agree on the four or so top priorities by August 4th. Those projects will go to the Chesapeake Bay Trust to do a peer review through August. Those review summaries will go back to the GITs to revise proposals. August 29 We will make final funding and project decisions on August 29th. We have 5 projects today for discussion, and we are supposed to submit 4. If we

decide that all 5 are critical, we may be able to persuade the Chesapeake Bay Trust to go forward with reviewing all 5. We need some discussion today of ideas, and some indication of priority ranking.

- Davis-Martin: We do have a couple projects from the Toxic Contaminants Workgroup (TCW), so let's start with those.
- Allen: TCW has two. We'll start with the feasibility study:
    - This portion of our strategy has made very little progress, so we have a major work plan item here that we need help with. We will ask a contractor to look at different places where PCBs might still be in use and what successful programs have done around the country to create recommendations on what a phase-out program might look like in the Bay.
- Allen: Next TCW proposal: Atmospheric deposition of PCBs in the watershed. It has been noted many times that understanding of atmospheric load is lacking—affects planning and implementation of PCB TMDLs. Most data we have is from mid-90s which needs to be updated with new monitoring data and new understanding of sources and movements in the air shed and the Bay. The budget is capped pretty high, and we'd want to get this in front of other toxics and modeling folks to design a really tight study.
    - Davis-Martin: This is the plan, development and monitoring?
    - Allen: Yes, it's both.
    - McGee: Is atmospheric deposition coming from local sources or outside the Bay watershed? That would affect whether management can be done from inside the Bay watershed or not.
    - Allen: Most of it is local. PCBs tend to be pretty heavy and don't have a global flux like mercury (Hg) does.
    - Chris French: That is addressed a little in the proposal. Previous studies identified PCB concentrations much higher in urban than rural areas, which speaks to the local circulation hypothesis.
    - Dianne McNally: Do you plan to do a literature review on atmospheric sources?
        - Allen: This is an actual monitoring project. We will collect samples, get them analyzed, and interpret that generated data.
- The next proposal was from Jim George in MD:
    - Looking at soil amendments and aeration in lawn areas to do research and monitoring. We are trying to achieve zero stormwater runoff by increasing lawn aeration. We don't have a budget yet, but we can get you that information.
    - Davis-Martin: We can't pre-select a vendor in this process and promise UMD this direct funding. We can send it forward without the designated recipient, but you need to check with the folks who have developed this proposal.
- Integrating Data Projections: Emily Trentacoste
    - Trentacoste: We have done a case study in the Choptank to integrate monitoring and modeling data, to assess BMP implementation, performance, and linking all of this information to water quality standards attainment in the Choptank watershed. Here, we want to expand the study to focus on particular watersheds or jurisdictions. The other approach would be to go watershed-wide and create a tool

with all the resources the jurisdictions would need to do these analyses themselves.
    - Davis-Martin: I thought this would be especially useful in the next year or so to integrate with local jurisdiction planning. This also fills the cross-GIT goal to understand geographic intersections where multiple outcomes can be realized.
    - McNally: Are we proposing to do one or the other? What is the budget for each proposal?
    - Davis-Martin: We don't have a specific budget. That depends on where the funding would go.
    - Trentacoste: I put in both scopes with an idea that you all could decide which approach is best.
    - Davis-Martin: I think we should go with both approaches as different phases of one project. Let's say the budget is $75,000.
- USWG proposal: David Wood and Norm Goulet:
    - Goulet: This is building off of other work that the USWG has done. Roadside ditches are ubiquitous and we can further classify the efficiencies from roadside ditches, as well as provide more information on verification. A lot of this information is being requested by local governments and state agencies that incorporate ditch management as part of water quality practices. This falls outside of the normal management process.
    - Wood: We'd form a small team to put together the guidance and move this through the Partnership approval process. We are trying to engage nontraditional partners in the watershed and get them to start using some of these practices.
    - McNally: Why is this outside the normal panel process? Are you developing reduction values?
        - Goulet: VT is maxed out on expert panels with what we have, so we'd have to bring in a contractor to handle this.
        - Davis-Martin: So any new reductions in efficiencies would follow the same approval path as if it was an expert panel?
    - George: MD is funding a roadside ditch guidance document involving Talbot County, MD. Are you working with them at all?
        - Wood: Yes, we are aware and we will try to get their review of our project plan.
- George Onyullo: All these proposals look good. The only problem is that we see them on the screen like everyone else. We can't approve these without reading through offline and considering them before voting on priorities.
- Davis-Martin: I agree, perhaps instead of deciding now, we will take another week to review and have the membership submit their top priorities and aggregate to a decision based on that. Please send your top 3 priorities to Michelle Williams by Monday, July 31. Michelle will compile and notify the WQGIT of the priority rankings.

Action: The five GIT funding proposals were distributed via email to the WQGIT for feedback on prioritization. The four highest priority project proposals will be submitted to the Management Board for review by COB Friday, August 4.

Phase 6 Fatal Flaw Review—standing item for any issues to be addressed

Presentation of any identified fatal flaws in the Phase 6 suite of modeling tools and recommended resolutions of the identified flaws. The last update to fatal flaw comments was made July 31, and is available in WQGIT's Projects and Resources page.

- Power: We have some additional comments from MDA and PA DEP, but CBP staff are handling those right now and they have been raised to the appropriate workgroups. If anything needs to come to the WQGIT, please comment earlier rather than later. You must submit any comments to Gary Shenk in writing.

Updates and Announcements (Continued)

Bruce Michael gave an update on the summer hypoxia forecast prediction. This year there was a worse than average prediction, but July monitoring has shown the 5th best hypoxia year we have seen since 1985. This will be posted on Eyes on the Bay.

- Sally Claggett asked for an update on growth projections for 2025.
    - Power: Peter Claggett will be presenting the results of those scenarios in early September.

Adjourned

Participants:

James Davis-Martin, Chair (VA DEQ)
Teresa Koon, Vice Chair (WV DEP)
Lucinda Power, Coordinator (EPA CBPO)
Michelle Williams, Staffer (CRC)
Lindsey Gordon, Staffer (CRC)
Loretta Collins, AgWG coordinator
Mark Dubin, AgWG Coordinator
Jeremy Hanson, VT
Joan Smedinghoff, CRC
John Schneider, DNREC
George Onyullo, DOEE
Dinorah Dalmasy, MDE
Jason Keppler, MDA
Lauren Townley, NYS DEC
Kristen Wolf, PA DEP
Dianne McNally, EPA

Jenn Volk, University of Delaware
Beth McGee, CBF
Bill Angstadt, Angstadt Consulting
Tanya Spano, MWCOG
Sarah Diebel, DOD
Jessica Blackburn, CAC coordinator
Dave Montali, Modeling WG chair
Sally Claggett (USFS), Forestry WG coordinator
Norm Goulet, USWG Chair
David Wood, CSN
Ted Tesler (PA DEP), WTWG Chair
Anne Carkhuff, EPA R3
Suzanne Trevena, EPA R3
Greg Allen (EPA), Toxic Contaminants Workgroup Co-chair
Karl Blankenship, Bay Journal
Russ Baxter, (VA ONR)
Bruce Michael, MDNR
Jim George, MDE
Ken McGonagall, SRBC
Nicki Kasi, PA DEP