

**CHESAPEAKE BAY PROGRAM**  
**WATER QUALITY GOAL IMPLEMENTATION TEAM**  
June 27, 2016 CONFERENCE CALL  
**Meeting Minutes**

Summary of Action and Decision Items

DECISION: The WQGIT approved the recommendation to introduce formal rerunning of model and progress history (to accommodate new data and methods) with the Phase 6 modeling tools, and not with Phase 5. Therefore, new data and methods will be introduced in 2019 and the model history will be rerun back to 2009.

DECISION: The WQGIT agreed to not change the scale for plotting effectiveness when developing the Phase III WIP Planning Targets. Effectiveness will be plotted at the state basin scale, and differentiated by above and below the fall-line.

ACTION: Each sector workgroup (Urban, Ag, Wastewater, Forestry) will be asked to make recommendations to the WQGIT regarding proposed changes to the No Action and E3 scenarios for the Phase III WIP planning targets, prior to the October 24<sup>th</sup> WQGIT face-to-face meeting. To aid in those discussions, the guiding principles and modeling documentation used to develop these scenarios in the Phase II process will be distributed to the sector workgroups.

ACTION: WQGIT members are asked to begin discussing the Phase III WIP planning target methodology internally in order to be prepared to make decisions during the October 24<sup>th</sup> face-to-face meeting.

DECISION: WQGIT agreed upon the prioritization of the submitted GIT Project Funding proposals. Highest priority was given to the proposal assessing multifunctional forest buffers, with next highest priority a tie between the proposal to assess potential toxic reduction benefits achieved through nutrient upgrades to wastewater treatment plants and the proposal to develop an assessment protocol for crediting manufactured treatment devices.

ACTION: WQGIT members should send comments and feedback on the Preliminary Draft Phase III WIP Expectations to Lucinda Power ([Power.Lucinda@epa.gov](mailto:Power.Lucinda@epa.gov)) by COB Thursday, July 7<sup>th</sup>.

Announcements

- The WQGIT face-to-face meeting is scheduled for October 24-25 at the Hershey Lodge in Pennsylvania. Additional details are forthcoming. A small group of volunteers will work to develop an agenda for the meeting. Teresa Koon (WV DEP) will lead the group, and Sarah Diebel (DOD), Bill Angstadt (Angstadt Consulting), Kristen Wolf (PA DEP) and Suzanne Trevena (EPA) have volunteered to participate.
- The Beta 2 Modeling Webinar will be held on July 7<sup>th</sup> from 1-3pm. The objective is to orient attendees to the Beta 2 documentation and encourage further Partnership review.
- Virginia has completed its land cover classification work and has sent it to the Bay Program Office for further processing.

Phase III WIP Planning Target Methodology Update – Gary Shenk, USGS

Gary provided a status update on the Phase III WIP Planning Target methodology, including an overview of pending decisions and schedule for when the WQGIT will be asked to approve a final methodology.

**Discussion:**

- Ted Tesler (PA DEP): What is the basis for the effectiveness rating? Is it modeled or is it based on monitoring data?
  - Gary Shenk (USGS): It is based on the Watershed Model's delivered pounds to the Bay. The units are the mg/L increase in dissolved oxygen (DO) per million pounds of nutrients or sediment reduced at the source.
- Diebel: How is the relative effectiveness determined?
  - James Davis-Martin (VA DEQ, Chair): The concept is that reducing a pound of nitrogen will have a different effect on DO depending on where that reduction is made. For example, 1 pound of TN removed from the James River and 1 pound of TN removed from the Susquehanna River in New York will have different impacts on the main stem DO levels.
- Shenk: The estuarine model runs can be broken up into about a dozen different parts (each major tributary, above and below the fall line). We can only run the estuarine model a finite number of times because of the time it takes to complete the runs, so there is only so much spatial differentiation we can do.
- Dinorah Dalmasy (MDE): On the slide about changes to the new Watershed Model, what is meant by changing seasonality?
  - Shenk: When we moved to a lag-time model, it improved our agreement with data in terms of seasonality. That means that loads hit the estuarine model at a different time of year than in the previous model. I don't know the impact of that change yet on the loads.
- Diebel: Do the jurisdictions provide input on which estuarine model runs should be performed? Could the current set of runs (each major tributary, above and below the fall line) be changed?
  - Shenk: We are certainly open to making changes if the WQGIT wanted to look at those.
  - Davis-Martin: Currently, the Modeling Workgroup is at about the upper bound of how many runs they can do, which gives us about 30 different spatial areas. The next viable scale down would be segment sheds, of which there are 92. Would that be feasible?
    - Shenk: It would require 184 runs of the estuarine model to go to that scale, which would be too many for the computing power we have available. It could be useful information to the states, but the planning targets would still likely be rolled up to the state basin scale.
- Davis-Martin: Given the constraints on supercomputer time, does anyone advocate for any changes to using the state basin scale for determining effectiveness values, both above and below the fall line?
  - Diebel: If you are going to keep it at that scale, I am curious whether or not keeping planning targets at that scale will help or hinder progress of getting more buy in at the local scale.
    - Davis-Martin: I think ideally, if our desire was to simulate and use load based targets for local governments, we would run relative effectiveness at local

scales. It doesn't sound viable to do that based on the time involved, but there may be other ways to break that out.

- Shenk: Above the fall line you can go to as much detail as you want based on information from the Watershed Model and Scenario Builder. Below fall line requires more estuarine model runs.

DECISION: The WQGIT agreed to not change the scale for plotting effectiveness when developing Phase III WIP Planning Targets. Effectiveness will be plotted at the state basin scale, and differentiated by above and below the fall-line.

- Davis-Martin: Did the no action scenario just include the base land use conditions?
  - Shenk: The biggest assumption is the point source load in the no action scenario. I suggest we go back and make sure we agree with the rules we used moving forward.
- Davis-Martin: The Everything, Everywhere by Everyone (E3) scenario is the other side of the effort calculation, which I think absolutely needs to be updated in order to account for all the new BMPs we've added.
- Jeff Sweeney (EPA): There is a detailed definition of E3 and we will follow the same general guidelines. The Urban Stormwater Workgroup (USWG) has already started working through what they would like to evaluate for the new E3 scenario. It is important for this group to make sure there is equity among the sectors as far as what we consider to be E3. We really need to get this on the agenda for the Agriculture Workgroup (AGWG) and Wastewater Treatment Workgroup (WWTWG).
  - Angstadt: We have manured and non-manured land uses now, so the E3 scenario for manured lands would have different BMPs than non-manured lands. That is one piece we would need to re-work.
- Davis-Martin: I suggest we task each of the sector workgroups (Ag, Urban, Wastewater, Forestry) with discussing the E3 and no action scenarios and have them make a recommendation to us as soon as possible.
  - Sweeney: The modelers need these scenarios in order to get a sense of how achievable the water quality standards are based on the refined modeling tools.
  - Shenk: The earlier we get a sense of what we can do, the better, even though we won't get to the final planning targets until next year.
    - Davis-Martin: I would work towards the October face-to-face meeting as a final approval date.
- Lee Currey (MDE): Could the WQGIT share the principles and definitions used in developing the E3 and no action scenarios in the past in order to make sure there is equity in how they are developed?

ACTION: Each sector workgroup (Urban, Ag, Wastewater, Forestry) will be asked to make recommendations to the WQGIT regarding proposed changes to the No Action and E3 scenarios for the Phase III WIP planning targets, prior to the October 24<sup>th</sup> WQGIT face-to-face meeting. To aid those discussions, the guiding principles and documentation used to develop these scenarios in Phase II will be distributed to the workgroups.

- Davis-Martin: What is the basis for using 2010 as the base year?

- Shenk: Moving to a later year provides an advantage to areas that are growing, while moving it to an earlier year provides an advantage to areas that are not seeing a lot of growth. 2010 was chosen because it was the year the TMDL was established and we had some of the best information relative to earlier years.
- Davis-Martin: Our land use dataset is being built on imagery from around 2012. If we wanted to set a base year that took forecasting and hindcasting out of the equation, we could pick something that aligned with that imagery. Is that enough reason to make a change from 2010?
  - Shenk: As I mentioned, moving the base year into the future allows for more growth in the areas that are growing. However, it is a reasonable point that we have the most accuracy around the 2012 time period. Also, if we want to move that base date, will we move the base year again if we go through this effort in the future?
- Davis-Martin: Does the group have any strong feelings one way or the other about the base year?
  - Dave Montali (WV DEP): I think we should maybe keep it at 2010. Last time we went through this effort, New York was concerned that the conversion of agriculture back to forest wasn't adequately compensated, and moving the base year to 2012 further aggravates that issue. Equity is a tough nut to crack and it is hard to know until we see the impacts.
  - Currey: I think there is still thinking that needs to be done with this. 2012 may be more accurate, but the concerns over growth was heavily debated in the past. I would argue that the more we can keep it consistent, the better as far as the base year is concerned. I don't know if we can make a decision today.
  - Suzanne Trevena (EPA): My initial gut is to stick as close as possible to what we did before, but I would first need to discuss it with others at EPA.

ACTION: WQGIT members are asked to begin discussing the Phase III WIP planning target methodology internally in order to be prepared to make decisions during the October 24<sup>th</sup> face-to-face meeting.

#### Representing Nutrient Spread in Phase 6: Update – Curt Dell, USDA

Curt provided an update on the recent Agriculture Workgroup decision to run the July Beta calibration of the Phase 6 model using two different nutrient spread methodologies. The AGWG will seek a decision on which method to use for the final calibration once the results have been analyzed.

#### **Discussion:**

- Davis-Martin: You talked about having nutrient management and non-nutrient management acres. If that is part of the calculations for the application rate tables, we aren't going back to two land uses simulated in the model, correct?
  - Curt Dell (USDA): That is my understanding. Because of the approach the Nutrient Management Expert Panel is using, we need to have separate categories, but within the current Ag land uses. It would not be different land uses, just different application rates on the existing land uses.
- Tesler: How were the rates in the table established? Is that based on scientific studies or professional judgment?

- Dell: The Nutrient Management Panel might be better able to answer that. It is guided by the scientific data, but I think they did have to use the expert panel's best professional judgement on some of those rates.
- Mark Dubin (UMD): Yes, the Nutrient Management Panel was asked to develop some preliminary perspectives on what the rates would be. The full report with final values will be coming out later this summer and will go through the full Partnership review process.

#### Re-running Model History – Jeff Sweeney, EPA

Jeff provided an update on when in the milestone cycle the model history will be re-run.

#### **Discussion:**

- Davis-Martin: The next time we rerun the history would be the close of the 2017 milestone period for the start of Phase 6. Does anyone disagree with Jeff's proposal?
- Davis-Martin: Are we rerunning the history back through 2009, or just back to the latest year the model was calibrated?
  - Shenk: We would rerun it back through 2009, though it would only really change after the last land use dataset we had. Post-2012, there would be only small changes.
  - Sweeney: There is really no reason for 2009, other than the fact that it was the original reference point for the TMDL, so you are correct.
- Davis-Martin: Should we have different processes for incorporating changes in the land use forecast, and new BMP information? Maybe land use data changes go through this model history rerun, but BMP changes should just be a call to the jurisdictions for revised data.
  - Currey: In terms of rerunning model history, we are talking about using Phase 6. I think it is important to rerun 2009. I don't think it is necessary to run anything between 2009 and 2017, but we can always do annual runs if we need to. I have always used 2009 as a reference point because it is the underpinning of how we established the 60% reduction in the Bay TMDL. 2017 is also an important point in time.
    - Davis-Martin: That makes sense to me.
- Montali: I don't have a strong opinion on this. If we agree on moving this to Phase 6, we can sweat the details when the time comes.
- Tesler: I don't have any objections to the proposal. I agree that 2009 is an important year and would like to include that in the history rerun. I think to the extent we can establish these milestone years, this is helpful.
- Ben Sears (NYSDEC): I don't have any objections to waiting until Phase 6. When we do start rerunning history, does that change anything about how EPA has evaluated us in the meantime?
  - Sweeney: When we introduce new data, it will be for new milestones you are developing. So when we do our evaluation, it will be based on the data you developed your milestones on two years earlier.
- Marel King (CBC): I think we need to really make sure the Management Board is aware of this and be proactive on the communications front as far as why we are doing this, what the changes mean and how to interpret them.
  - Sweeney: The advantage is that when you rerun the history, it makes it easier to explain the progress being made. We are trying to get a clean history so that it's easier to

understand whether conditions are improving or not based on implementation on the ground.

- Suzanne Trevena (EPA): I think this gets us back to an approach where we are comparing the same set of conditions at the end of the milestone period as at the beginning.
  - Davis-Martin: The downside is that there is more of a disconnect between each milestone period.
- Davis-Martin: Are there any concerns, or are there any members who cannot live with the proposed approach for rerunning the model history?
  - None were raised.

DECISION: The WQGIT approved the recommendation to introduce formal rerunning of model history (to accommodate new data and methods) with Phase 6, not Phase 5. Therefore, new data and methods will be introduced in 2019 and the model history will be rerun back to 2009.

#### GIT Project Funding – James Davis-Martin, VA DEQ

Each project lead provided an overview of their proposal and GIT members were asked to prioritize the projects.

#### **Discussion:**

##### *USWG Proposal:*

- No questions were raised.

##### *FWG Proposal:*

- Davis-Martin: I think a lot of riparian forest buffers are installed through NRCS programs. Have you discussed this project with NRCS?
  - Matt Keefer (PA DCNR): They have been a part of the conversation, but we haven't had a chance to discuss this study specifically.

##### *TCW Decision Support Tools:*

- Trevena: Was there a timeframe, if this all worked out, for incorporating this into CAST? Are modelers available to even do those types of updates?
  - Scott Phillips (USGS): There may be some opportunity to incorporate this information into CAST by paying for some staff time.
- Davis-Martin: I think the vision is to have some other benefits built into CAST as we start to look harder at these other benefits. At this point, what would probably go into CAST is a simple, relative 1-10 score. This project looks like it could quantify those reductions beyond just a relative benefit score.

##### *TCW Wastewater Treatment Plan Monitoring:*

- John Schneider (DE DNREC): I would like to support this proposal. As nutrient reductions in WWTPs are brought about, they can also reduce organic contaminants. Additionally, the flocculation process for P can take out a lot of contaminants that absorb to sediment.

- Dalmasy: As part of the two-year work plan, Maryland is taking the lead on monitoring to determine PCB removal from WWTP upgrades. It is very limited, only four plants, but it will help with this effort.

*TCW: Identifying Endpoints*

- No questions were raised.

*TCW: PAHs*

- No questions were raised.

*Prioritization:*

- Davis-Martin: At this time, we ask that each GIT voting member please identify the project proposal that is your top priority.

*Ranking:*

1. Assessing Multifunctional Riparian Forest Buffer Benefits (Forestry Workgroup; Matt Keefer, PA DCNR) - 6 votes
2. Development of Chesapeake Bay Chesapeake Bay Technology Assessment Protocol for Manufactured Stormwater Treatment Devices (Urban Stormwater Workgroup; Norm Goulet, NVRC) – 3 votes
3. Assessing Benefits of Wastewater Treatment Plant Nutrient Control Upgrades on Toxic Contaminants (Toxic Contaminants Workgroup; Greg Allen, EPA and Scott Phillips, USGS) – 3 votes

DECISION: WQGIT agreed upon the prioritization of the submitted GIT Project Funding proposals. Highest priority was given to the proposal assessing multifunctional forest buffers, with next highest priority a tie between the proposal to assess potential toxic reduction benefits achieved through nutrient upgrades to wastewater treatment plants and the proposal to develop an assessment protocol for crediting manufactured treatment devices.

Preliminary Draft Phase III WIP Expectations – Lucinda Power

ACTION: WQGIT members should send comments and feedback on the Preliminary Draft Phase III WIP Expectations to Lucinda Power ([Power.Lucinda@epa.gov](mailto:Power.Lucinda@epa.gov)) by COB Thursday, July 7<sup>th</sup>.

- Russ Baxter (VA Secretary of Natural Resources Office): EPA should consider imposing some expectations on themselves and including it in this document. It seems odd that states would be expected to identify the capacity of federal agencies, because that seems like something EPA would do. Please clarify what resources EPA will seek and provide to help jurisdictions meet these expectations. We need to better understand those federal commitments.
  - Power: Appendix D does contain additional information on EPA's role in the Phase III WIPs, but if there is information missing, please let us know.
  - Rich Batiuk (EPA): Thank you for the comments, please send those comments to us in writing, and have your PSC member raise those in August, as well.

- Scott Phillips (USGS): We have had a lot of discussion of the co-benefits of water quality activities. Is that something that was considered?
  - Batiuk: It was considered, but EPA felt that the Partnership currently doesn't have enough tools to effectively plan for those co-benefits. We wanted to be sure that if there was an expectation, the tools would exist for partners to work from. It would be great for partners to start considering that.
- Mary Gattis (LGAC): My primary issue is the schedule. A focus of recent discussions has been local government input on the expectations. I am disappointed in the condensed schedule, and I think LGAC members will be disappointed as well. It will take time for us to review the document and brief LGAC members in advance of the Management Board and PSC meetings. Please, let's try to work together in scheduling things like this. There is a lot of information in the expectations about local engagement, so there will be plenty of input from LGAC.
  - Davis-Martin: With regards to the scheduling, there was a good deal of pressure on EPA from other partners to release this document sooner rather than later, so that we could have a more productive review and dialog than the original time frame allowed. I apologize if it wasn't communicated that this was forthcoming, but I think it is good that we actually have a longer period in which to provide input.
- Gattis: I wouldn't want to get to January and realize that opportunities for input were overlooked.
  - Davis-Martin: I would envision the collective Partnership's input feeding up to EPA, them considering that input, making changes to the document, and through time getting a more detailed expectations document that addresses all of our collective needs.
- Batiuk: The time crunch was largely driven by the desire to get this in front of the PSC members in time for their August 10<sup>th</sup> meeting. We do want to keep interacting with our partners until we have a complete set of expectations we can all buy into as a Partnership.
- Baxter: This reads as though decisions have been made regarding local targets and climate change. I recommend a placeholder that doesn't indicate one way or another until a decision is made by the Partnership. Definitive statements now make messaging harder if things change moving forward. What will happen on the August 10<sup>th</sup> meeting? Will the PSC be able to see the comments that have been made to date?
  - Power: Yes. The plan is to take comments we receive, make revisions and present the feedback and revisions to the Management Board and PSC.
- Baxter: I am concerned about the time crunch. I don't think we have enough time to do a thoughtful review. This has to be a living document for now, but rushing to August 10<sup>th</sup>, I'm not sure how productive that will be.
  - Power: I agree that this is a living document. This draft is in response to a number of requests we got from partners.
    - Baxter: I agree, but why the rush to meet an August 10<sup>th</sup> deadline?
      - Power: We can discuss pushing it out further, but I think it is beneficial to have more time.
  - Diebel: I tend to agree with Russ. I think the fact that this has been provided in advance is great, but that pushing us to provide written comments by August 10<sup>th</sup> might be too much of an ask at this point.



- Baxter: We have been trying to engage local governments and we want them to be involved and to understand their views before submitting comments. I don't see the downside of extending the review.
  - Batiuk: We are trying to start responding to comments earlier, there just so happens to be a PSC call on August 10<sup>th</sup>, and we wanted partners to know. If comments aren't in by August 10<sup>th</sup>, they will still be received and discussed. As we work through new issues this fall, the document will still be open. Don't feel pressure to get everything done right away.
- Baxter: There will be confusion with local governments about whether decisions have already been made or not.
- Gattis: I think my members will be asking the question of what does "and implement" mean for local area targets. Also, it should be referred to as "Local Area Planning Targets". Finally, please add this release date and that EPA will finalize draft expectations in January to the overall Phase III WIP schedule.
- Davis-Martin: I think the PSC would be better served on August 10<sup>th</sup> having a discussion about what we collectively hope to achieve with the development of the Phase III WIPs. I don't want a planning document that adds no value to our implementation efforts. For EPA, reasonable assurance is one of those things, but there are surely others.
- Davis-Martin: As you review the preliminary expectations document, think about it in terms of the timing and schedule we have for developing the WIPs and make sure the expectations are achievable in the time that we have.

Adjourned

#### List of Call Participants

<b>Member Name</b>	<b>Affiliation</b>
James Davis-Martin (Chair)	VA DEQ
Teresa Koon (Vice-Chair)	WV DEP
Lucinda Power (Coordinator)	EPA
David Wood (Staff)	CRC
Lindsey Gordon (Staff)	CRC
John Schneider	DE DNREC
George Onyullo	DOEE
Dinorah Dalmasy	MDE
Lee Currey	MDE
Robin Pellicano	MDE
Alisha Mulkey	MDA
Bruce Michael	MD DNR
Ben Sears	NYSDEC
Kristen Wolf	PA DEP
Ted Tesler	PA DEP
Matt Keefer	PA DCNR

Dave Montali	WV DEP
Marel King	CBC
Ann Jennings	CBC
Suzanne Trevena	EPA, R3
Chris Day	EPA, R3
Ann Carkhuff	EPA, R3
Jeff Sweeney	EPA, CBPO
Rich Batiuk	EPA, CBPO
Bill Angstadt	Angstadt Consulting
Jenn Volk	U of Delaware
Sarah Diebel	DOD
Beth McGee	CBF
Chris Thompson	LCCD
Norm Goulet	NVRC
Gary Shenk	USGS
Scott Phillips	USGS
Mark Dubin	UMD
Curt Dell	USDA
Jessica Blackburn	CAC
Mary Gattis	LGAC
Russ Baxter	VA Secretary of Natural Resources Office
Joan Smedinghoff	CRC
Angela Redwine	VDH
Adam Wright	DOD
Samantha Wood	UMD
Skyler Golt	UMD