Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Conference call
Thursday, June 7, 2018
10:00 AM to 12:00 PM
Calendar Page: Link

Meeting Minutes

Action and Decisions:

DECISION: The meeting minutes from the April 2018 meeting were approved.

DECISION: The MTT4 default cost values in CAST will remain the same. Peter's real-world MTT4 cost information will be incorporated as an additional citation for CAST users to review and use at their discretion.

DECISION: The group agreed to approve the interim BMP to utilize in CAST for planning purposes, with the condition that the 20% TN reduction is correctly described and not referring to nitrate.

DECISION: More discussion is needed regarding credit-life period for forest buffers.

ACTION: The modeling team will evaluate the calibration impacts that may occur if the forest buffer credit life is extended to 15 years, and get back to the group with testing results.

Introductions and Announcements – Ted Tesler, PADEP

DECISION: The meeting minutes from the April 2018 meeting were approved.

Costs for Manure Treatment Technology 4, High Temperature Gasification – Peter Thomas, Coaltec Energy USA, Inc.

Peter proposed changes in the costs and credit duration for "Manure Treatment Technology-4 - High Temperature Gasification" for CAST scenario development.

Discussion:

- Peter Thomas noted that data is based on four operating facilities around the U.S with identical processing facilities.
- Ted Tesler: What are the prospects of getting these facilities into the Chesapeake Bay Watershed?
    - Peter Thomas: I have been told EPA Region 3 is looking to fund two of these facilities in the watershed- one on the Eastern Shore and one in Lancaster, PA.
- Jeff Sweeney explained how we calculate the costs currently in CAST. These are default numbers by state that any CAST user can change the cost value for any BMP for any scenario. Many of these default costs came from an EPA Headquarters effort to determine cost information for BMPs. We also hired RPI to research and provide cost information for all new BMPs which are now updated in CAST. Peter is proposing we update these default costs for this manure treatment technology. We don't have a protocol for updating the costs because they are defaults that anyone can change with their scenarios. We are looking for feedback from the group if we are comfortable updating these defaults with the real-world MTT4 data Peter has shown today.
    - Peter Thomas: Is there a process for differentiating wet and dry manure in CAST?

    - Olivia Devereux: We differentiate by animal type instead of wet or dry manure.
- Sarah Lane: Is there a way in CAST to include this as a link that a user could access and decide if they would like to use without changing the default costs?
    - Olivia Devereux: There is absolutely a way to provide this information to give users the option to use this data instead of the defaults.
    - Bill Keeling: Changing these is not violating a BMP expert panel decision so I don't have a problem updating to these costs if it's real world data.
    - Ted Tesler: I think if we present all the information we have, users can make their own decisions.
    - Sarah Lane: If this data is still presented as a default that can be changed by the user, I would be supportive. We also need to present the literature that accompanies this data for users to see.
    - Jeff Sweeney: All numbers in CAST are default values specific to states. The contractor hired came up with these values by going to state agencies and using world data. Any user can go into CAST and update any numbers with their own values.
- Olivia Devereux: We can make this available on CAST and differentiate between poultry and swine. Is there a full study we can use as a citation beyond the summary presentation?
    - Peter Thomas: We don't have a university study, but I sent a more detailed write-up that is not for public release. Feel free to put my name on the presentation and anyone can give me a call.

DECISION: The MTT4 default cost values in CAST will remain the same. Peter's real-world MTT4 cost information will be incorporated as an additional citation for CAST users to review and use at their discretion.

CAST Updates – Jessica Rigelman, J7 LLC

Jess updated workgroup members on the following changes and additions to CAST:

- Isolation scenario data availability: We have the isolation scenario data, which is the cost per pound reduced and pound per acre reduced, for BMP based on a methodology for isolation scenarios for BMPs. This is available on the CAST home page under "developing a plan." Each of the worksheets there has a read me document discussing details of the process. The absolute numbers are just within the context of how we ran this scenario, but the relative differences between BMPs and their cost per pound reduced and pound per acre reduced can be used.
- Septic changes: WQGIT has decided we are changing septics from 2014 – 2025 deployed on Tuesday, June 12th. The D.C. septics will stay at 2013 levels all the way through.
- VA geographies in CAST: We have new VA geographies in CAST, these are their soil and water conservation districts and planning district commissions. Those are available in CAST on Tuesday, June 12th for developing scenarios, comparing scenarios, and adding BMPs. For adding a BMP, you have to have a scenario that includes an area in VA to see them, because this only pertains to VA.

- DC harvested forest: There is a mistake in CAST where D.C. suddenly got harvested forest for 2014 – 2025 and we will be removing that on Tuesday, June 12th.
- WV construction and harvested forest: It was brought to our attention that WV construction and harvested forest numbers were incorrect for 2014, 2015, and 2016. That will be corrected.
- Jess Rigelman noted that this CAST deployment will make the latest version of progress 1984 – 2017 publicly available. Most of you already have access through the special group share. There are no big releases planned for CAST other than some performance tuning for quicker scenario run times. We can develop tools for you that would help with development of Phase III WIPs, so if there are any requests, the feedback button on CAST can be used to send in suggestions.

Discussion:

- Jeff Sweeney clarified the isolation scenarios. The relative difference is amongst all the BMPs, pounds per acre implemented and cost per pound reduced. This is all in CAST and varies by scale. We get a lot of requests for this, so this is what we will be using until we complete the optimization component where you will have the ability to define boundaries and the most effective or cost-effective scenarios.
    - Olivia Devereux: The scales provided are state level and county level.
- Bill Keeling: When you say isolation, does that mean a single BMP? When you run treatment trains, these numbers aren't applicable? Is this clearly stated in documentation?
    - Jeff Sweeney: Correct, it is to get a sense amongst all the BMPs.
    - Jess Rigelman: I pulled it up here on the screen, and it does clearly say that. It is not just a no action with no BMP, it is the BMPs amongst all the other BMPs but not in the same ratios that would be in a 2017 progress. It should be useful as far as the relative difference amongst the BMPs. It will give you a sense of what is more cost effective.
- Sarah Lane: For the isolation scenarios, will we have the option to reduce our manure amounts or decrease chemical fertilizer sales?
    - Olivia Devereux: Manure transport is decreasing your manure amount and if you want to reduce fertilizer overall in agriculture, you would use the BMP application rate reduction which is the nutrient management application rate reduction BMP.
    - Jess Rigelman: That is an efficiency BMP it doesn't reduce the actual fertilizer that goes down. It is the nutrient management BMP that will mimic that by the application rate timing and placement which are efficiency BMPs.
- Bill Keeling: The 2025 base conditions for VA harvested forest and ENS are only a third of what it should be for ENS acres. Is there a way we can fix this?
    - Jess Rigelman: When that information is not submitted there is a default methodology used. If you're not happy with the default, you need to submit estimated permitted forested acres for 2025 by COB Friday.

Agricultural Ditch Bioreactors Interim BMP – Jeff Sweeney, EPA CBPO on behalf of Loretta Collins, UMD

Jeff updated the group on the agricultural ditch denitrifying bioreactors interim BMP. There is an Expert Panel on this practice and there has been a request to enter this practice as an interim BMP in CAST for jurisdictions' WIP planning. Jeff explained that the practice is used in tile drainage utilizing carbon source filters (wood chips) which treats the runoff and converts nitrate N gas through denitrification. Once the panel report is complete, there will be more details including how to use this in CAST. This was approved by the AGWG in April with an interim benefit of 20% reduction of N load. The units reported are acres treated which is the area of the fields that drain into this technology.

Discussion

- Bill Keeling: Is this a 20% reduction of TN or just nitrate?
    - Jeff Sweeney: It is total Nitrogen, as it says in the document.
    - Bill Keeling: I request that the expert panel makes sure the calculations for the nitrate reduction equates to a TN reduction of 20% and not just nitrate.

DECISION: The group agreed to approve the interim BMP to utilize in CAST for planning purposes, with the condition that the 20% TN reduction is correctly described and not referring to nitrate.

Review of Schedules for Phase 5.3.2 and Phase 6 Scenarios – Jeff Sweeney, EPA CBPO

Jeff went over updates to the schedule for evaluations of mid-point progress (Phase 5.3.2) as well as the finalization of Phase 6 2014-2017 Progress scenarios.

Discussion:

- Jeff Sweeney noted that the official version for Phase 5.3.2 is called lat-long. We will be sending more information and maps showing how changes from lat-long look to the WQGIT, hopefully next week.
- Alana Hartman: The lat-long fix is still in the context of the Phase 5 model?
    - Jeff Sweeney: We have dealt with this issue since 2002. BMPs were being credited in the incorrect land river segment. In some cases, the lat-long for BMPs was found in an area of the state outside of the watershed, in a different state, or in the ocean. With the fix, credit for those cases will not be given.
- Bill Keeling: Has the Phase 5 model been officially killed?
    - Jeff Sweeney: We need to keep it alive for legal purposes, in case we need to run it again for any reason. However, we are not looking to spend many resources maintaining it as much of our technology is transitioning to the cloud.
- Ted Tesler: Is there a plan in place for version 8 to have lat-long fix included?
    - Jeff Sweeney: Everything currently running has the lat-long fix, and all previous scenarios have been corrected.
- Brittany Sturgis: In DE, we may need assistance in figuring out the reasoning behind our numbers seeing such high impact. Some of our BMPs are increased or decreased by 60%.
    - Jeff Sweeney: This case is one of the top three that Sucharith Ravi is currently investigating.

Credit-life Period for Forest Buffers – Sally Claggett, US Forest Service

Sally discussed a proposal from the Forestry WG to extend the credit-period for verification (re-inspection, maintenance) to 15 years for riparian forest buffers to align with end-of-contract revisits.

Discussion:

- Jeff Sweeney noted that this proposal is requesting 15 years rather than 10 years to verify buffers are in place and functioning. The reasoning behind this is to align the 10 years credit period with the 15 years schedule of inspection by the CREP program.
- Bill Keeling: Does this include grass buffers?
    - Sally Claggett: We decided that grass buffers should be addressed by grass experts outside of the forestry workgroup. We did the best we could and did not find much research on grass buffers.
    - Bill Keeling: Did the panel weigh in on varication of buffers? How can we adjust the lifespan of forest buffers without grass buffers?
    - Sally Claggett: The grass buffers are not the forestry workgroup's specialty. Our scientific data gives us an efficiency for a 100 ft buffer, that can be taken down to 35 feet if necessary. We are talking solely about forest buffers.
    - Jeff Sweeney: We are not talking about grass buffers or urban storm water, this is confined to the agricultural forest buffer. This is an introduction to the topic and more discussion is needed
- Sally Claggett: It seems that this change will put less pressure on resources for verification.
    - Alana Hartman: We recently had a CREP Workshop where we saw some buffers thrive and others did not. There may be a large benefit to verification visits before contract expiration.
    - Sally Claggett: Yes, we try to make that visit two years prior to expiration.
- The group had discussion regarding the potential calibration impacts of expanding the forest buffer credit life to 15 years.

ACTION: The modeling team will evaluate the calibration impacts that may occur if the forest buffer credit life is extended to 15 years, and get back to the group with testing results.
DECISION: More discussion is needed regarding credit-life period for forest buffers.

Next meeting: Rescheduled to July 19th at 10:00 AM to accommodate Independence Day.

Meeting Participants:

Ted Tesler	PA DEP
Jeff Sweeney	EPA CBPO
Jess Rigelman	J7 LLC
Olivia Devereux	Devereux Consulting
Jeremy Hanson	VT
Allie Wagner	CRC
Sarah Lane	MD DNR
Alana Hartman	WV DEP
Brittany Sturgis	DNREC
Lori Brown	DNREC
Luke Cole	DOEE
Peter Thomas	Coaltec Energy USA, Inc.

Norm Goulet	NoVA Regional Comission
Bill Keeling	VA DEQ
Clint Gill	DDA
Sally Claggett	US Forest Service