



Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Meeting Minutes
Wednesday, April 21, 2021
3:00 PM to 4:30 PM
Calendar Page: [Link](#)

Summary of Actions and Decisions

Action: Hilary Swartwood will send a recap email to the WTWG that includes the proposed back-out method, and relevant documentation. This will also be posted to today's meeting page.

Agenda

3:00 PM – **Introductions and Announcements** – Cassandra Davis, NYSDEC

3:10 PM – **Our Understanding of Current Proposal for Back-out** – James Martin and Bill Keeling, VA DEQ

James Martin and Bill Keeling will present on questions brought up at the March WTWG meeting about the LU-change credit in the current and proposed back-out procedures.

Summary:

How BMPs are credited/ any possible issues with those credit has no bearing on the technical question for this workgroup. If there are question on how we give credit for those BMPs those should be raised at the relevant workgroups. The question before use is the assumption that they are capturing the forest condition in the year of the imagery. The current method is updating of 2017 imagery all tree planting all tree credit to forest is changed back through time and that is based on this assumption, but experts say that assumption is wrong, and it will actually take 10 years for the imagery to capture that change. So, the question is what we do with the information that we received. The recommendation is for example, tree planted in 2007 would be backed out, tree plantings from 2008 on would get the credit. Under the current methods where we update imagery every five years, the longest credit for tree plantings is 4 years because in year five you have new imagery, and everything gets backed out. So, in effect we have a credit duration of four years under the current method. VA is in support of changing the methodology to allow the proper length of credit be given under the current rules we use for simulation, that being ten years. The only question I have is for the year after the imagery is collected, for example 2008, are we tying it strictly to imagery or would it be backed out later? I am thinking the actual duration would apply, which matched the window of detection that the experts say is there.

Going back to basic purpose of back out is to try to prevent double crediting of land use change practice that have been reported in the BMP record and are also detected as classified in the base conditions land use. If you are simulating a BMP for credit, it is perfectly appropriate up until that BMP is able to be detected by the imagery and can be included in the base conditions. At that point the land

use change is captured in the base conditions so the BMP credit should cease. The problem we have now is that we now know that these practices are not detected for some time. Estimates are around 10 years maybe longer. Until it is detected it can't be included in the base conditions so credit should continue in the model as part of the BMP report.

The question before us is about setting that window of time- how long should we be given that credit, regardless of how we give the credit (that is a different question).

Questions/ Discussion:

Katie Brownson: Forestry Workgroups current analysis determines that 15years is the appropriate length.

Brittany Sturgis: what happens to an verified BMP?

Bill Keeling: There is a different between verified and reported or just captured in the imagery? If it's just captured and not verified, then I am not sure it would count. The imagery wouldn't pick it up, but the assumption is that they are capturing it even if they are not. The proposal is that it would last 10 years for the credit duration or until the imagery capture it.

James Martin: The back- out only applies to the land use change portion for the credit. The upload treatment of that buffer will continue. When it reached the end of it credit duration and not reverified, if the land use is captured in the imagery, then that base change is captured in the conditions, but once it's verified it won't get the upland treatment too. There is a double whammy- if 2017 is the current back out year, that means the current acres are the back out number, from 2020 progress, 2017 is the back out number, but between 2017 and 2020 you have some practices that have been cut off by NEIEN but now can't be backed out.

Cassie Davis: are any states using imagery for verification? In NY all verification is tied to physical proof. We don't use imagery.

Brittany Sturgis: we are funding some research to see if we can use it, but we don't currently use imagery for verification.

James Martin: I think that is one of the discussions occurring at the BMP Verification Ad Hoc Action Team. One last thing on the table, I do want to put out there that back out applies to a number of other BMPs as well. I hope this is the first of many conversations on back- out BMPs where we can work to make changes to the methodology if needed.

Jeff Sweeney: Bill, you mentioned two separate concepts at the end of your talk, and I wanted to make sure that we focused on that because that is the main discussion for the meeting. What we need documentation.

Bill Keeling: the reason we back things out is the assumption that the imagery is capturing it, the way it is credited is based on the assumption that.

James Martin: I will agree with that a good portion of the credit is later in the buffer's life, but that is not to say that there is no benefit in an earlier stage. At the very minimum, it should then shift to mix open once planted.

Jeff Sweeney: I just need documentation of why this makes sense, so then I can explain why this change needs to occur.

Bill Keeling: we currently have a what if model that we use to estimate past, future, and present conditions and we use that to compare with 2025, if we are trying to do of what is, then what you are suggesting, Jeff, makes sense, but it's irrelevant to the technical question being put forward to the group. It would be simpler and cleaner in CAST to say that we credited it for this long, but

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Brittany Sturgis: if we are completely uncoupling these BMPs, would we still get that data or just rely on the buffer BMPs we are reporting?

Bill Keeling: my perspective, I thought we were doing a quasi- use of imagery and credit duration, if we have an update in 2022, then we would move the back- out date to 2012.

Olivia Devereux: let's say it's 10 years, and the imagery is from 2012 and we are in 2022, it would be back out, but if we were in 2018, it would not be back out. I think it's because the experts for imagery and tree people are saying they can see trees in the imagery after ten years, not that there is a coincidence that the credit duration is 10 years.

Proposed Back- out Method: Back out of forest and tree planting land use change practices would be based on the date of the land cover imagery used in the model's base conditions minus the detectability lag for such practices recommended by the Forestry WG (currently estimated for 10 -15 years and may vary by practice).

Action: Hilary Swartwood will send a recap email to the WTWG that includes the proposed back- out method, and relevant documentation.

3:30 PM – **Back-Out Discussion** – Cassandra Davis, NYSDEC and Jeff Sweeney, EPA

Cassandra and Jeff will review CAST's back-out procedures, including the proposal for forest BMPs to extend the land use-change credit through time versus the model's purpose of giving immediate full credit of a mature tree stand to saplings when they are first reported as planted.

Discussion: *see above*

4:30 PM – **Meeting Adjourn**

Next Meeting: May 6, 2021 from 10:00 to 12:00 PM

Call Participants

Matt English, DOEE

Brittany Sturgis, DNREC

Ted Tesler, PA DEP

Emily Dekar, USC

Bill Keeling, VA DEQ

James Martin, VA DEQ

Alana Hartman, WV DEP

Arianna Johns, VA DEQ

Vanessa Van Note, EPA

Cassie Davis, EPA

Jeff Sweeney, EPA

Greg Sandi, MDE

Olivia Devereux, Devereux Consulting

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Katie Brownson, USFS

Jess Rigelman, J7

Ruth Cassilly, UMD

Clint Gill, DNREC

Elizabeth Hoffman, MDA

Jessica Rodriguez, DoD

Lisa Wainger, UMCES

Rebecca Hanmer, Retired / FWG

Sarah Lane, MDNR

Sucharith Ravi, UMCES

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