

Chesapeake Bay Program
Watershed Technical Workgroup (WTWG)
Meeting Minutes

Thursday, December 5th, 2024
10:00 AM to 11:00 AM

[Meeting Materials](#)

Summary of Actions and Decisions

Decision: The WTWG approved the [November 2024 Meeting Minutes](#).

Action: WTWG Members who are interested in serving as WTWG Chair or have nominations should email Auston Smith, EPA and Sushanth Gupta, CRC (smith.auston@epa.gov and Gupta.sushanth@epa.gov).

Action: WTWG Members who are interested in further discussion of the NRCS data should attend the [office hours](#) on December 11th.

Decision: The WTWG will approve the suggested revisions to the Forest Harvest BMP and associated Technical Appendix (TA) by email pending inclusion of Land Use reporting and MD getting back to leadership.

Meeting Minutes

10:00 **Introductions and Announcements** – Auston Smith, EPA (15 min).

- *Please put your name and affiliation in the chat box for attendance purposes. Thank you!*
- **Decision requested:** Approval of November Meeting Minutes.

Decision: The WTWG approved the [November 2024 Meeting Minutes](#).

- Call for WTWG Chair – WTWG Leadership
 - Cassie Davis, NYS DEC announced that she will be stepping down as WTWG chair due to her increasing responsibilities at NYS DEC, including serving as the NY Management Board member.
 - **Thank you, Cassie, you will be missed!**
- Excess Update – Auston Smith, EPA
 - Auston mentioned that at next week's WQGIT meeting, Bill Keeling, VA DEQ will be discussing how NHD HUC12 watersheds might be used as a basis for defining river segments in the next phase of the model, replacing the existing river segments which were developed in Phase 5 of the model.

Action: WTWG Members who are interested in serving as WTWG Chair or have nominations should email Auston Smith, EPA and Sushanth Gupta, CRC (smith.auston@epa.gov and Gupta.sushanth@epa.gov).

10:15 **Progress Schedule Update** – Auston Smith, EPA (10 min)

Auston Smith, EPA provided an update on the Progress Schedule including items coming up over the next quarter. The team hopes to get back to jurisdictions by the next verification meeting. He also thanked jurisdictions for sending in their land use data sets, and for their patience with the NRCS data.

Discussion:

Scott Heidel: Just wanted to confirm if you received PA DEP's point source data?

Auston Smith: Yes, we have received a large portion of PA's point source data. I know Jess has been working with some of your team, and I've looked at the submission and am preparing initial feedback. We've flagged that we try to get an agenda to the team a week prior to the call, and so we're trying to send a complementary email back to your team prior to our verification call.

Olivia Devereux: Was there a particular concern regarding the data?

Scott Heidel: No, just wanted to verify.

Olivia Devereux: Data was received and there are some substantial differences, but we'll cover those during the verification meeting.

10:25 **NRCS Office Hours Announcement** - Auston Smith, EPA (10 min)

Auston Smith, EPA will provide an update on the release of NRCS data and announced an opportunity for partners to get their questions answered at an optional Office Hours on [December 11th](#).

Discussion:

Olivia Devereux: Would you please invite Kendrick Flowers, NRCS and Jared, whose email I will send you?

Auston Smith: Yes, I can do that.

Action: WTWG Members who are interested in further discussion of the NRCS data should attend the [office hours](#) on December 11th.

10:35 **Forest Harvesting Practices BMP Update** – Katie Brownson, USFS & Lorenzo Cinalli, USFS (20 min)

Katie Brownson, USFS and Lorenzo Cinalli, USFS presented on updates made to the Forest Harvesting Practices BMP materials since the [October WTWG Meeting](#). These included

Decision Requested: Approval of the suggested revisions to the Forest Harvest BMP and associated Technical Appendix (TA).

Discussion:

Bill Keeling: One of the criticisms the program has been getting is the difference between modeled and real measurements. In some places the model indicates more is being done than monitoring indicates. One of the things people have been indicating is that we may be overestimating what nonpoint BMPs are doing. Not that I'm opposed to increasing the benefit we give these BMPs, but I can see in the future a wholesale condemnation of efficiency BMPs.

Katie Brownson: That's a good point, thanks for bringing it up. This is only one BMP which is probably representative of a small chunk of the overall loads.

Bill Keeling: Well, it's a large acreage reported each year, so it's not insignificant.

Katie Brownson: Yeah. I think the other piece is that it's not a huge increase over the forest baseline to start with. Only three times true forest for TP and TSS, and seven times for TN which isn't a lot compared to the more intense land uses. I don't anticipate this change having big impacts relative to everything happening in the watershed. We do need to be conservative and careful if we are going to recommend increased efficiencies.

Bill Keeling: The other thing is that in the TA, it read like you had to report the land use, and I don't believe we do. That's an optional piece of information we can report, but I think the assumption or the default for this BMP would be on harvested forests.

Jess Rigelman: That's correct Bill.

Bill Keeling: The TA is currently silent on what's required for setting the baseline land use. Normally we require by September the acres that are harvested. Are we proposing that process continue as is and the cap of the three year lifespan is in essence whatever's going on with CAST?

Jess Rigelman: Good point, we should probably add that to the TA and Katie, I can help you with that. It's not necessarily related to the BMP, but the land use. It's all part of the expert panel report. That would continue as is, you would continue to report your yearly acreages by the deadline which I think now has moved to November 1st, and then I would aggregate them into three years. The BMP would be aggregated into a cumulative value. Nothing would change on that end.

Cassie Davis: The default for states that don't report acreage will still be used, right?

Katie Brownson: Yes; the THTF is recommending that the default rate be changed to 1.1% from 1.5%. We looked at FIA data for the watershed and we think 1.1% is more accurate than 1.5%. That was included in the other [report](#) we put on the meeting page and chatted about in October.

Jess Rigelman: We'll add that information to the TA as well, thanks for bringing it up.

Katie Brownson: I wasn't sure what information specific to the other changes needed to be included in the TA, I tried to keep that focused on the BMP. We can include any of the other information that would help with reporting or help people understand the bigger picture.

Jess Rigelman: That's usually the case, it's just that this BMP is particular in that we set the land use. Since they're tied and it's how the model uses the BMP and the data, we'll go ahead and include all that information.

Jeff Sweeney: I'm just curious, what do Forest Harvesting Practices do to control the N load after trees are cut? What's physically done?

Katie Brownson: So, the Forest Harvesting BMPs are a whole suite of BMPs which is unusual. In terms of reducing N, one thing is the widespread use of leaving a buffer in place to facilitate denitrification. There are also BMPs around avoiding depositing organic material in streams and limiting harvest over large areas to minimize the overall loads coming off the landscape.

Olivia Devereux: I remember talking to Anne about that and she explained to me that they have skids and stuff so you're not just pulling the trunk of a tree over the ground. They have to build roads to not create erosion. There were a lot of other things I remember her mentioning, and she finished up explaining it to me by saying 'no one knows how to harvest without following those because they're required by law to follow those rules. You can't just drag a downed tree out the woods with a chain, you're not allowed to do that.' So, it means that these are implemented everywhere other than illegal behavior, is that correct?

Katie Brownson: We think so. The tricky part is states that aren't permitting forest harvests on private land, we don't have good information to know what's happening. PA and NY in particular, we're assuming they're working with foresters who are following the policy, but we don't have as good oversight of harvests on harvested land. That's where PA and NY have to rely on the default rate because they don't have permitted harvest acreage.

Olivia Devereux: Maybe we should only have true forest and not even have harvested forest except where illegal foresting is happening. In that case we're simply returning it to true forest by the BMP but if that BMP is always used, why do we even mess with creating the land use and correcting it to be equivalent to true forest. A radical thought but I just thought I'd get it out there.

Katie Brownson: That is a radical thought, but I like the way you're thinking. The fact that we don't have data on all the harvest that's happening, and we know it can have an impact if it done incorrectly, would not be in line with the orientation to be more conservative in terms of how we're modeling the impacts of harvest. Harvests can have an impact if they aren't done correctly and a lot of states there are a lot of safeguards in place minimizing those impacts. I don't think currently it would be justified to say that harvest has no impact on the landscape.

Bill Keeling: The forest stand improvement USDA BMP is that still mapped to this FHP BMP?

Katie Brownson: I think that's a different practice, so no.

Bill Keeling: The NEIEN appendix has them mapped together. If the NEIEN appendix is incorrect it should be edited. Regarding Olivia's point, I wouldn't say it's illegal, landowners can take them down as they see fit, but most commercial operators are using the practices mentioned to help keep streams from getting choked out. That's not always the case, and even though it's a large mitigation it's not taking it back to a pristine forest, which is why we need to continue to track and report this.

Ruth Cassilly: Just wanted to echo what Bill said. In my experience in Hartford County, we do have to be conservative because I've seen that the state forester issues the permit, but they rely on the county for enforcement. I'm not sure the county always enforces things the way they should be. I've seen devastating forest harvesting where large equipment comes in and can compact the forest soil. They are using heavy equipment to push soil to the side, leaving huge piles of brush, damaging other trees. They take so many trees down that invasives move in because the light is allowed in, and there's no monitoring for preventing the invasives. I think it

would benefit us to see how forest harvesting is being done and what is happening with enforcing the permits, in addition to the conditions of forests post harvest. Just echoing the need to be conservative on forest harvest in general. In this day and age, we shouldn't be cutting trees, because a full grown tree stores a lot more carbon than a young tree. We're in the age of climate change where we need to be saving those large trees. At the very least we need to be conservative about what's happening when they're harvested.

Scott Heidel: All great points; if we're going to be looking at the efficiencies differently in different jurisdictions, we'll have to look into the methodology that's being employed. I can guarantee PA does a fantastic job with this. We have areas set aside for pristine environments that will never get harvested. I also think that we could really step our game up if we used remote sensing on this, especially in the state forest lands.

Katie Brownson: When the THTF was first getting started, we spent a lot of time discussing what we can detect with remote sensing imagery. With current high resolution data, REF that could change and we could start to be able to pick up some of these more selective harvest techniques which would be a game changer for us. We'll definitely keep an eye on that.

Mark Dubin: Just a thought there, it's maybe useful to report the percentages of public versus private forested lands. It's one thing to have controls in place on public land, but private lands are a significant portion of that, and our information is more limited. It supports the comments made by Bill, Ruth, and others.

Katie Brownson: We do have some data on that from the FIA dataset. Some states like PA are doing a great job managing state lands, but like you said we don't have as good visibility on private lands.

Jess Rigelman: One change that may have to go moving forward for Phase 7, I know in the FFWG they were talking about adding harvested forest to federal lands. If that's the case, the datasets submitted for harvested forest acres will have to include a column for 'agency.' I don't know where that's going, but that's something to keep track of going forward.

Katie Brownson: That's a good flag, we've been talking about that for years now. We'll see if it actually happens.

Jeff Sweeney: On the loading rate ratios for N, it's seven times for harvested forest versus true forest. Do we have a good definition for what's considered harvested forest in the TA? It doesn't differentiate between select cuts and clear cuts, but what was that based on? Was that studies of select cuts and everyone following the rules?

Katie Brownson: I can send you the spreadsheet for the MD DNR study if you want to dig in. In terms of our definition, any technique will be included as a harvest. When FIA identifies harvested areas, it's any treatment of an acre including clear cuts and more selective harvests.

Jeff Sweeney: So, you're assuming it's much closer to a selective harvest, since the clear cuts aren't happening to nearly the same degree as the selective cuts, right?

Katie Brownson: I don't think they had that degree of nuance when they calculated the average loading rate ratio, I think it was just based on the studies they had available.

Bill Keeling: To Jess, as I understand it in VA, we have better data on private land than on federal land. We have lots of USFS land but hardly any information from them on harvesting or cutting on their land. The data we get from the private side, which if there's a commercial sale, our

forestry people put boots on the ground at each site. You can do a clear cut and still have Forest Harvesting Practices employed versus a select cut. These practices apply regardless of the type of cut, which should be factored in. We should also take the perspective that this is the third or fourth forest that's been cut since colonization. There are very few spots that were not cut originally, so we have very little old growth. At that time, there was soil structure which has now been destroyed and will never come back.

Mark Dubin: Something else to think about moving down the line is having differentiation of forest rather than just one label there. When I look at the clear cuts and so forth, a lot of times they're associated with commercial timber production and with the timber companies planting trees that are harvested on a rotational basis, as opposed to a select cut in a more natural forest. There's differentiation there because of the management of the forest itself. It's something we can't very well define right now but may be an opportunity in the future.

Dave Montali: I remember I said something at the THTF that clear cuts have a gigantic impact and I got corrected on that by Anne, saying that with proper BMP application the impacts aren't that different between a clear and selective cut. Not sure if I believe that yet but it's what I was told.

Katie Brownson: The point Anne likes to make is that if you're keeping your soils in place. If you're doing a clear cut well and ensuring you're not eroding the soils away it can be done in a way where there isn't a big WQ impact.

Jess Rigelman: I saw that Cassie confirmed that Forest Stand Improvement is mapped to Forest Harvesting Practices and earlier you said it shouldn't be. Is that a change that needs to be made to the appendix for Phase 7?

Katie Brownson: It is a little confusing to me that is included as a BMP because it seems like the Forest Stand Improvement practice is the management of the forest itself and harvest itself. I'm assuming as part of that they're doing the BMPs that are required as part of the harvest. I can see why it could be included, but maybe we can talk more about that, maybe we need to pull in someone from NRCS.

Jess Rigelman: That's fine but we should probably add that information to the TA because we usually say which kind of NRCS practices are mapped. I didn't realize these were reported in NRCS since I thought NRCS was ag only. We do need to make it clear, and I know you had mentioned in the chat two other practices which we should also add to the TA as well as the decision on Forest Stand Improvement.

Katie Brownson: The two I mentioned in the chat are in the TA now. Those are the only two that I knew mapped on; I didn't know about the Forest Stand Improvement one.

Jess Rigelman: Since it does, we should add it unless you wanted to change it, but this group would have to vote on that since they're in charge of the appendix.

Dave Montali: I have limited understanding of forest stand improvement, but I saw it on the national forest, ten years post harvest they went back in and cut saplings to promote the growth of bigger trees. They created more brush in the woods, but it was all done by hand. The understanding you need for whether to include it or not is what all can go on under that practice. You're managing the future growth of trees is what I thought it was.

Katie Brownson: You're not managing for soil erosion, or water quality in an existing harvest.

Katie Brownson (in chat): The technical appendix currently references Forest Trails and Landings (655) and Forest Slash Treatment (384) but not Forest Stand Improvement.

Cassie Davis (in chat): Forest Stand Improvement is currently mapped to Forest Harvesting Practices in the NEIEN NRCS FSA CAST BMPs Excel.

Jeff Sweeney: Just curious. What's the TN loading rate ratio for a clear-cut compared to select?

Katie Brownson: We don't differentiate currently.

Dylan Burgevin: In the Boggs et al. (2015) paper they only monitor sites that have vegetated buffer strip BMPs, the Harvesting BMP is a suite of BMPs, can we really make the assumption that the nutrient removal rate is higher than the current 50% based on this one paper?

Katie Brownson: The previous BMP efficiency rate was also established on the basis of one paper (which found 60-80% efficiency). The findings from the Boggs et al. are generally in line with the previous paper and are likely conservative given that they don't reference using the full suite of BMPs.

Dylan Burgevin: Great. Thanks for clarifying. It's hard when there's not a lot of research out there!

Bill Keeling: It really depends on the loggers. Some are very good at low impact harvesting, others not so much.

Decision: The WTWG will approve the suggested revisions to the Forest Harvest BMP and associated Technical Appendix (TA) by email pending inclusion of Land Use reporting and MD getting back to leadership.

Next Meeting: [Thursday, January 9th, 2025](#), from 10:00 AM – 12:00 PM.

Participants

Alicia Ritzenthaler, DC DOEE
Arianna Johns, VA DEQ
Ashley Hullinger, PA DEP
Ashley Kelly, DoD
Auston Smith, EPA
Bailey Robertory, UMCES
Bill Keeling, VA DEQ
Cassie Davis, NYS DEC
Christina Lyerly, MDE
Clint Gill, DDA
Dave Montali, Tetra Tech WV
Dylan Burgevin, MDE
Emily Dekar, USC
Eugenia Hart, Tetra Tech
Helen Golimowski, Devereux Consulting
Jackie Pickford, USGS

Jeff Sweeney, EPA
Jeremy Hanson, CRC
Jessica Rigelman, J7 Consulting
Joshua Glace, Larson Design Group
Katie Brownson, USFS
Kevin McLean, VA DEQ
Lorenzo Cinalli, USFS
Mark Dubin, UMD
Matthew Kofroth, LCCD
Normand Goulet, NVRC
Olivia Devereux, Devereux Consulting
Ruth Cassilly, UMD
Samuel Canfield, WV DEP
Scott Heidel, PA DEP
Sushanth Gupta, CRC
Tyler Trostle, PA DEP

Acronym List

BMP: Best Management Practice
CAST: Chesapeake Assessment Scenario Tool
CRC: Chesapeake Research Consortium
DDA: Delaware Department of Agriculture
DEC: [NY State] Department of Environmental Conservation
DEP: [PA] or [WV] Department of Environmental Protection
DEQ: [VA] Department of Environmental Quality
DNR: [MD] Department of Natural Resources
DoD: [U.S.] Department of Defense
EPA: [U.S.] Environmental Protection Agency
FFWG: Federal Facilities Workgroup
FIA: [USFS] Forest Inventory and Analysis
FSA: [USDA] Farm Service Agency
LCCD: Lancaster County Conservation District
MDE: Maryland Department of the Environment
NEIEN: National Environmental Information Exchange Network
NHD: National Hydrography Dataset
NRCS: [USDA] Natural Resources Conservation Service
NVRC: Northern Virginia Regional Commission
TA: Technical Appendix
THTF: Timber Harvest Task Force
TN: Total Nitrogen
TP: Total Phosphorus
TSS: Total Suspended Solids
UMD: University of Maryland
USDA: United States Department of Agriculture
USFS: United States Forest Service
WQGIT: Water Quality Goal Implementation Team
WTWG: Watershed Technical Workgroup