



## Forestry Workgroup Meeting Minutes

February 3, 2021

9:00am-11:00am

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### Meeting attendees:

Rebecca Hanmer, Chair  
Sally Claggett, USFS, *Coordinator*  
Nora Jackson, CRC, *Staffer*  
Lara Johnson, VA DOF  
Matt Poirot, VA DOF  
Judy Okay, VA DOF  
Frank Rodgers, CI  
Teddi Stark, PA DCNR  
Jim Kauffman, ACB  
Jason Swartz, PA DCNR  
Derrick McDonald, PA DCNR  
Lydia Brinkley, USC

Cassie Davis, NY DEC  
Julie Mawhorter, USFS  
Patti Webb, DE DNREC  
Anne Hairston-Strang, MD DNR  
Marian Honecny, MD DNR  
Iris Allen, MD DNR  
Katie Brownson, USFS  
Peter Claggett, USGS  
Paul Emmart, MDE  
John Young, USGS  
Kesha Braunskill, DE DNREC

### December Joint Meeting Follow up; Mapping Forest Land Uses

*Peter Claggett, USGS*

Peter reviewed the methods for mapping forest and tree canopy over turf in three kinds of landscape contexts; agricultural, urban developed, and wooded lots. Hoping to show full county results of how they are mapping harvested forest and natural succession in several weeks. Shared updates to the Land Use Classification classes; 6 forest classes and 4 tree canopy classes. In Dec. the FWG recommended getting rid of the fragmented forest class given the many ways to characterize fragmentation.

**Agriculture:** Capturing the tree canopy over turf with a 10 m buffer around structures, and windbreaks are picked up as forest, areas generally more than an acre but can be narrower than 120 ft.

- Anne- How much of what you wanted to call fragmented forest fits reasonably well under tree canopy?
  - Most of what we wanted to call fragmented is now classed as forest.
- Anne- MD has been trying to stay closer to what forest inventory and analysis would do, which is 1 acre and 120 ft minimum width. Suggest talking to Rob Feldt about his methods.
- Sally- Some tree plantings practices reported to the model are potentially contiguous to forest, and we want them to get credit for tree planting, not forest. Don't think those hedgerows or 'windbreaks' are acting like forest. For water quality purposes, they act like tree canopy.
- Cassie- Are the harvested forest determined from information provided by states or picked up over aerial imagery changes?

- Harvested forest is a combination of aerial imagery and annual satellite data going back 30 years. Built an algorithm to determine if the land is in rotation. If the land has a history of being cleared, then we say it's timber harvest. Only clear cuts, not proposing this represents harvested forest in the model. For the model, it's 1-1.5% is presumed harvested, proposing using the mapped data, what land river segments contain that harvest can be informed or weighted by how it's mapped.
  - Getting actual acres from VA, NY, and MD.
  - NY has been reporting what regional foresters provide, interested to see what the land cover picks up.
  - If you submit acres by county that is used in the model. Some counties do not, and that uses the default.
- Julie- Yet also agroforestry practices - windbreaks get the credit of forest, but not sure what the width is. NRCS tree plantings on ag lands are getting forest credit and not tree canopy, some states point that it gets converted from canopy to forest in the model.
- Katie- Was there a discussion of including tree canopy over ag class? With all the plantings on ag lands,
  - Peter- We could do that- didn't discuss it because unless we presume is has a different loading rate, like right now trees over turf is much higher than forest. If it were a class, in the near term it would roll up to trees over turf or forest, and if it's forest then why call it trees over ag. These windbreaks perform like forests in the model for water quality purposes, then they need to be classed as something that rolls up into forest. Other option is to call it something else, FWG would recommend how we want it treated in the model- does it go to Turf or forest? We could add this as a unique landscape feature with unique loading characteristics, but it would need to be researched and go into a future iteration of the model (another LU class won't be approved for Phase 6).
  - Kate- Seems like a big different between 120 ft windbreak and the isolated trees being picked up as forest, somehow that distinction should be captured in the loading rate.
  - Peter- We go through these data, every patch of green that's under 1 acre, call it trees over turf. Only the patches over an acre are forest. Next, we attempt the 120 ft minimum width, unsure it can be done. If you agree everything under an acre should be trees over turf, that can be done.
  - Anne and Lara agree, it gives better sense of what is tree canopy vs forest, using simpler method and not looking at width.
- Judy- there is a section on the far left of the unclassified that looks like forest, but not delineated as such in the classified, the color for what looks like forest patch is yellow.....what is it really? It looks like colors are reversed.
  - Sometimes it isn't NAIP imagery, or trees get missed- could be the size, the age of image, this is to provide context. New buffers might not be detected for 10 years.

**Urban:** Looking for clusters of structures and lots to define urban areas, using a wider buffer because the increased level of disturbance (20 meters), everything within that buffer is trees over turf, what remains is classed as forest.

- Anne- Over an acre patches will be important to identify for heat island and climate resiliency concerns
- Sally- It looks like lawn is underestimated in ag areas
  - Peter- That's possible, difficult to discern the difference, or could be a misclassification.

- Anne- When this land use classification goes into the model, you're adding the ag statistics, how much pasture vs cropping, they have significantly different loads.
  - Peter- Proposing using what we map as agriculture as the definitive estimate of ag acres in the watershed and use the ag census for the composition (soy, corn, etc)
  - Anne- The overestimate of ag and underestimate of canopy around a dwelling would make a significant difference.

**Wooded area:** Look at a subdivision in the woods, using a 10-meter buffer around structures as tree canopy over turf, assuming the area had to be altered and compacted during construction. We'll see less trees over turf compared to 2013, and more forest in the initial analysis. Chesapeake Conservancy is finishing the 14 counties selected to prototype development of the 2017 hi res land use data, if this is approved by all parties then the method will be expanded to the whole watershed, should be complete in a few weeks. Will put them on a web-based viewer when finished to compare classifications, NAIP imagery, Lidar, and add comments. Want FWG and AgWG look over this data and provide input. Jarloth is producing the change product, at the same time he's producing the 2017 data. We're getting the change product now but need time to figure out how best to communicate it.

- Frank- The windbreak that's picked up as forest but is too narrow to function as a forest, could use something like a perimeter:area ratio to determine the difference. Method used with lidar finding sinkholes to determine from ditches.
  - Used area perimeter ratio and index to help define what is fragmented or not but caused problems. The disconnects appear connected and you get a lot of stringy windbreaks connected to larger forest patches. GIS-wise, they are connected but their shape index does not meet the threshold, and changing the threshold causes issues in other areas. It's a lot of trial and error we may not be able to refine in the next couple months.
- Peter- Land Use Production Schedule, finalize by end of march. Will map areas under 1-acre trees over turf in each ecological context. Will ask about the shape index or the 120ft width, need FWG recommendation on how it's classed (forest or trees over turf) by the end of June.
  - Sally- Do you want Peter to go back and call out a third class, fragmented forest, trees over ag, (name TBD)?
  - Anne- Making this designation now, so the implication is they will be attributed differently with different loading rates in the future.
  - Peter- Yes- if you suspect a loading difference now that can be called out for the next time we redo the model.
  - Anne- Assume a difference, looking at more nutrient loading around ag, fertilization in the developed setting and septic, would think there is increased infiltration in an ag setting, higher nutrient loading, could process more.
  - Peter- Decide what to call it now, define it so we can decide later how it rolls up. Start with complexity and aggregate later.
  - Sally- Like the name trees in ag, trees over ag, rather not use fragmented forest
- Julie- If you do trees over ag then do you clump the little patches with the over 1 ac patches?
  - Peter- at a minimum will do less than one-acre trees over turf everywhere, and over an acre but narrow in an ag setting will be tree canopy over agriculture, and test the trees over ag- if a patch is under an acre in an ag field, call it trees over ag and NOT trees over turf. Data not public until Dec, so there is time to tweak.
  - Sally- Some misgivings about the strips, understand that less than an acre in an ag field could be a nice little wetland forest! Look forward to the next rendition before reviewing the final decision in June.

- Lydia- Is there an option for just upland tree planting, that may not necessarily be on active ag?
  - Sally- Related to practices, not land use modeling, but yes. If it has been harvested, you wouldn't call it tree planting.
- Katie- concerned by the "ag" designation for lots of grey areas, maybe just doing tree canopy over turf for anything outside the definition of a forest would simplify the classification.
  - Peter- let's take a stab at the ag, you're concerned about the suburban areas, think the rules will call those areas trees over turf.

**10:00 am**      **STAC Water Temperature Workshop Proposal**      *Rebecca Hanmer, Sally Claggett, USFS*

This proposal addresses the need to understand how significant rising water temperatures are and what the ecological impacts might be, looking at what management responses are built into our program today; what BMPs are best for preventing temperature rise. Proposing a two-workshop series in early 2022 looking at material gathered on the temperature effects – still looking for more ag representation, but lots of groups involved- Next step is to pull together available information from the program and partners about water temp rises and their effects, and the effects on BMPs (main emphasis) beginning in March. Request- what do you have that would add to this information search? Your agencies, university experts, any work you're aware of.

#### **Questions and Comments**

- Anne- This is an impressive effort, appreciate the work. Synthesis of information about water temp and forest buffers. UMBC, Matt Baker, and American university Mike Alonzo are doing studies on UTC and heat island effects that could be relevant to urban forest and tree planting BMPs, **suggest presentation at next FWG.**
- Frank- George mason study, 15 years ago looking at municipality historical water temperature data, Mid Atlantic aquatic biologists conference.
- Katie- My role on the steering committee is to collate this information we have on BMPs. **Any resources like Frank's example, send to Katie.**
- Lara- We are also doing a lot of work in VA around urban heat islands. Helped with studies in one community and doing 9 more communities in 2021.
- Need someone in PA to bring brook trout action team into this project- Steve Faulkner?
- Judy- Are we focusing on coastal areas, or going up into the piedmont? It seemed like the proposal was mostly coastal.
  - It's the whole watershed- both tidal and non-tidal.
- Teddi- So talking about the brook trout community in PA and reaching out to them- are you thinking the PA Fish and Boat Commission, Trout Unlimited, both, other? I'm happy to help, just need a little more direction.
  - Suggesting checking the CBP website to find out who from PA is already participating in the brook trout action team.
- Anne- What we need right now is to reach out through CBP network, assuming it's funded. Alleghany national forest, George Washington and Jefferson might have resources.
- Paul- Recommendations for existing practices should be tied to regulatory requirements, not just policy and legislative drivers but stormwater permitting requirements. If the recs are tied to drivers, it's a natural connection to implementation.

Reviewed upcoming projects and a tentative schedule of work for 2021. Welcome additional involvement if members are interested in particular topics. **Send Katie updates on state buffer programs to add to website-** <https://chesapeakeforestbuffers.net/>. Stream restoration GIT project looking at opportunities to minimize forest buffer loss from stream restoration is funded and reviewing bids right now. Let Katie know if you want to be part of the project team.

### **Questions and Comments**

- Anne- Buffers are a big part of climate resiliency for adapting and mitigating. Should look at high level opportunities like the Chesapeake WILD legislation, tapping into the momentum to spur the leadership we want to see.
  - Sally- Climate will be a major focus for upcoming leadership meetings, and we need to elevate buffers in that context. Need to keep these action strategies flexible so they can be talked about in climate and water quality circles.
  - Anne- do we need a white paper, or some communication piece?
  - Yes, these conversations need to be around actionable things not just BMPs and the model. Sally will take lead.
- Anne- feel free to tap Francis Smith for agroforestry. MDA also has a growing interest agroforestry, considering it as part of their soil health initiative.
- Sally- Backout issue – big ask is that forestry practices have 15 credit year duration and expanding the life span to calculate the annualized costs for practices. Jurisdictions can pick out the most cost-effective practices. Will we want to revise verification guidance? We can do that at the FWG. If a county is showing a net loss of any tree practice, their credit to the model would go away. No matter what you claim for the model, if the land use data shows a loss then it has to be erased. That needs more defining. Take another look at verification guidance.
  - Anne- might need to go up on buffer cost and make sure cost categories are consistent across practices.
  - Katie- Could be Cast 21 update, probably not before that. Looking at how other practices are doing their costs to make sure we're consistent- if you're comparing practices by cost effectiveness, it needs an even playing ground.
- Judy- Issues of nursery stock and availability contributes to costs issues. Bookmark this conversation, for when they revisit costs.
  - Rebecca- making projects cost-effective and exploring ways to cut costs is the other side of the coin of any financing strategy. could fit cost-effectiveness questions into proj. 1 Natural Filters Financing
- Judy- Thinking about RFB issues, the James River Group in VA meet a lot around this topic. It might be good to get one of the leaders of that group to talk to us about their progress and the bottlenecks they have with implementation and reporting.

### **Round Robin**

**WV-** Lots of applications for projects, looking forward to good turnout in the spring

**DC** – DC and Casey trees is active in the metropolitan COG doing regional tree canopy goals, interesting work for our urban tree sides

**MD**- Brittany Haas is now with the Alliance, starting to fill other vacant positions. MD is the next pilot for family forest carbon program from PA, in Garrett and Allegheny counties. Legislature is in session, very active. Wood energy is a big topic, policy making sure it remains as qualifying biomass- pushback from people because of climate impacts, expect some form of the bill to pass. Comprehensive conservation financing bill that will be introduced soon. Working on the Potomac RFB strategy with Frank and welcome participation from others. Iris is looking for more shapefiles of tree plantings or buffers for the next step of forest image detection study. Looking polygons outside of MD with a planting date, Send to [iris.allen@maryland.gov](mailto:iris.allen@maryland.gov). The climate solutions act could impact the bay restoration fund.

**PA**- Scheduled buffer summit virtually for March 10 and 11, registration is open. Looking for people to complete a survey in interested in guiding sessions or proposing sessions. EPA buffer funding is discontinued, looking for ways to keep the flexible buffer program running. PA Buffer Summit Registration: <https://www.eventbrite.com/e/2021-virtual-riparian-forest-buffer-summit-tickets-137434216441?aff=>

PA Buffer Summit Survey and RFP: [https://docs.google.com/forms/d/e/1FAIpQLSfQTLCSmLYQ-QrsQtOeECVRhKdcOT6zU\\_3VWfehZsQ-6cBQ9w/viewform](https://docs.google.com/forms/d/e/1FAIpQLSfQTLCSmLYQ-QrsQtOeECVRhKdcOT6zU_3VWfehZsQ-6cBQ9w/viewform)

**VA**- Tracking interesting legislation regarding tree canopy, VA has caps on canopy percentiles that localities can require, bill right now that allows localities to set their own rules, they've asked for a study to be completed by Oct 2021 of multiple stakeholder groups looking at canopy decline. First time seeing this level of momentum, expect more to come.

**NY**- Hired new buffer steward, rolling out buffer steward program, assessing 600 acres, engaging with climate action council in NY state for tree planting projects, over 100 acres planned for planting in the spring, and submitted Conowingo WIP comments.

**CBP**- Thanks to everyone for input on Tree Canopy materials. April FWG will be devoted to the workplan and management strategy development, will meet with state leads first.

**Adjourn**