



## Chesapeake Bay Program

*Science. Restoration. Partnership.*

Lydia Brinkley, Upper Susquehanna Coalition  
Taryn Davidson, Delaware Forest Service  
Iris Allen, MD DNR  
Anne Hairston-Strang, MD DNR  
Sally Claggett, USFS  
Katie Brownson, USFS  
Paul Emmart, MDE  
Ryan Davis, Alliance for the Chesapeake Bay  
Rebecca Lauver, Alliance for the Chesapeake Bay  
Ned Brockmeyer, PA BOF

## Forestry Workgroup Meeting

May 4, 2022

[Meeting Materials](#)

Patti Webb, DNREC  
Peter Hoagland, PA NRCS  
Cassandra Davis, NYS DEC  
Bryan Ellis, NYS DEC  
Molly Hassett, NYS DEC  
Judy Okay, J&J Okay  
Danielle Gift, USFS  
Frank Rodgers, Cacapon Inst  
Matt Keefer, PA DCNR  
Rebecca Hanmer, Chair  
Julie Mawhorter, USFS  
Kesha Braunskill, DE Forest Service

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### **ICLEI/WRI LEARN Tool for forest carbon accounting, *Susan Minnemeyer, Chesapeake Conservancy***

Chesapeake Conservancy is working with ICLEI Local Governments for Sustainability and the World Resources Institute to add the high resolution tree canopy data to the [LEARN](#) tool that will generate reports on forest/tree canopy stocks and changes.

Susan Minnemeyer started by sharing information about the Land Emissions and Removals Navigator or LEARN, which is designed to help local governments and other organizations better track carbon sequestration and emissions for tree canopy, the tool covers both gains and losses. What is exciting about this tool is that it will run the analysis on data loaded in the platform and will generate data and a downloadable report. This is a huge game changer for groups that are not carbon accounting experts, but still want to be able to understand what is happening with carbon in their communities.

The LEARN tool is being updated with high resolution tree canopy and tree canopy change data for the Chesapeake watershed. The High Resolution one meter data is being developed as land cover with partners from the Chesapeake Bay program.

Tom Herrod from ICLEI gave some background. In 2018 ICLEI started looking at communities that had done greenhouse gas inventory, and carbon accounting of the emissions within their communities. What was found was that not a lot of communities were accounting for where carbon was being removed from the atmosphere. The communities that were taking inventory were all over the place in their methodology and approach, and there was no great comparison from one community to another.

The communities that were not accounting for removals of carbon from the atmosphere cited reasons such as lack of guidance, insufficient data, or that it was not a required step in reporting. To fix that gap they set out to make consistent methodologies and protocols for taking inventory of removal of carbon and be in compliance with a traditional greenhouse gas inventory.

ICLEI, Woodwell Climate Research Center, and World Resources Institute (WRI) worked together to develop a new US Community Protocol called Appendix J: Forests & Trees. It was developed to make the methodology consistent when it comes to tracking emissions and removals of carbon. Appendix J was then adopted by the Global Protocol for Community-Scale Emissions. Appendix J is a way to provide communities with an estimate to understand the magnitude and direction of greenhouse gasses from forests and trees to be used to inform policy. Appendix J is not a specific tool, it will not provide you methodology to estimate specific mitigation activities, provide estimates for selling carbon credits, measure indirect benefits of trees/forests, or measure removals from on forest BMPs.

Taking inventory gives a strong basis for policy making. Appendix J has categories in which it measures either emissions or removals, so it can pinpoint data that would be useful for policy making and can help communities update what they need to do with forests and trees to meet their climate targets.

After Appendix J came the LEARN tool which was created to help communities with carbon accounting of forests and trees.

ICLEI wanted to make sure that communities can truly understand what is happening with their carbon, so they are creating the 2022 Forestry Cohort. This will be an opportunity that will help community leaders and experts through guided sessions for running specific analysis, help them interpret data, and allow a space for networking.

Erin Glen from WRI gave an overview of the specifics of the tool. LEARN is a web-based tool that can be used to conduct on the fly spatial analysis of carbon emissions and removals from forest and trees at the community scale. The tool works by combining a series of geospatial data sets in a hierarchical model and associating these results with emission and removals factors specific to the region, forest type, disturbance, and transition type.

The data is all pre-loaded into the tool and ready for analysis. The only input that the user provides is in either selecting the county for analysis, which is pre-loaded into the tool, or by providing a custom shape file boundary for analysis.

In the context of this tool, emissions and removals mean the following:

- Emissions: Carbon emitted because of forest or tree canopy loss or disturbance.
- Removals: Carbon removed or sequestered from the atmosphere by forests or trees remaining forests and forest or tree gain.

Emission and removals factors are coefficients which quantify the estimated emission and removal of carbon per unit of area. By measuring the area of trees that were either stable, disturbed, or gained, and then associating these area measurements with the emission and removal factors, the tool can produce estimates of the overall carbon changes from the land during a time period. Calculations can be further

refined by using additional forest characteristic and disturbance data sets to select emission and removal factors.

The main categories of data using these calculations include land cover forest disturbances and forest characteristics that are all nationally consistent and from the USFS FIA data and supplementary data from USGS. Data is currently being updated with new High-res data.

Richard Birdsey of the Woodwell Climate Research Center gave some more background on removal and emissions factors and the calculations. Forests are very dynamic, and the LEARN tool calculates unique emission and removal factors for each area that is being analyzed. During a tree's life cycle, they may be removing or emitting carbon dioxide from the atmosphere.

When it comes to emissions and removals they are calculated as the following: emission factors are in tons per hectare as carbon emissions are rather large during deforestation or disturbance events that take place over a short period of time. Removal factors are calculated on an annual basis as removing carbon takes a lot longer.

To understand net changes the following calculations must be done:

- GHG removals = activity data x removal factor (negative number)
- GHG emissions = activity data x emission factor (positive number)
- Net GHG balance = GHG removals + GHG emissions.

Eric Ashcroft of Blue Raster gave a demo of the tool on their online platform. The tool has been developed by Blue Raster and WRI. The tool takes a very complex process and boils it down to a simple step by step for people to use. You can use the preset counties from the US census or upload a shape file of something more specific to understand carbon factors. The tool gives you the option to download a CSV of the change matrices and full inventory report for your selected area. The tool can be found [here](#).

To close out the presentation Susan addressed the next steps which include identifying cohort participants (please reach out to Tom Herrod at [tom.herrod@iclei.org](mailto:tom.herrod@iclei.org) if interested in participating) and integrating high resolution data (this should be happening sometime this summer).

## **Discussion**

Anne Hairston-Strang: This is a great tool for you know assessing what is mapped, is there anything to distinguish trees that were cut for timber harvest?

There is an advanced feature of the tool called *harvest wood product*, when clicked on the hyperlink in the tool you are taken to an excel sheet that helps you calculate harvested wood. Once you go through the sheet you get a number which you then put in the tool.

Anne Hairston-Strang: This is a great tool to communicate carbon over the landscape, but long term I think we need to try to communicate carbon over the life cycle.

The carbon life cycle is embedded in the tool, through the NLCD data, we do not show that life cycle in the end results, but that is considered. We also have different factors for different types of disturbances.

Sally Claggett: Are you using the more specific LIDAR data that USGS recently put money into to measure tree height?

We are currently using stand age data to understand height but are hoping to use the LIDAR data as a more uniform approach. It should be noted that the tool doesn't really look at height, it looks at tree crowns for its calculations.

**RFB Website and Resource Library Presentation and Discussion**, Rebecca Lauver, Alliance for the Chesapeake Bay and Katie Brownson, USFS

Katie provided an overview of initial plans to reorganize the [Chesapeake Riparian Forest Buffer Network website](#). Katie opened the [Proposed Update for the Chesapeake Riparian Forest Buffer Network website](#) draft document which has all the current proposed ideas laid out. There are some bigger structural changes that would better organize the information. The hope is that the buffer website will follow in the [Chesapeake Tree Canopy Network](#) website footsteps in terms of organization. The buffers site would get new sub tabs under the Why Forest Buffers main tab on topics like water quality, climate resiliency, economic benefits, recreation and human health, and habitat. Each sub tab would get relevant resources for the topic. These resources would be separate from the resource library that Rebecca Lauver has put together. The other proposed main tabs are funding your buffer, planting your buffer, maintaining your buffer, and a separate resource library.

There is a tab on the current buffer site called the Chesapeake RFB Initiative, and at this point the contents under that tab are out of date. Katie noted that this tab could be updated to highlight current initiatives, such as the most recent RFB webinars and workshops, and house the final State Action Strategies when they are complete in late June. The timeline under this tab could also be updated and filled in with current points.

The original website had a heavy CREP focus. With the new update CREP will still be mentioned, but it will not be the main topic as there is much more than CREP for implementation of forest buffers at this point.

There are plans with the Alliance for the Chesapeake Bay to maintain and keep this website up to date.

Sally Claggett brought up the idea of potentially adding a newsletter portion to the website and asked if people like receiving newsletters. A few folks agreed and noted that they like reading about current forestry events. Adding a newsletter would also keep the contents on the current.

**Action:** If you have the capacity, it is encouraged that you look over the proposed changes in more detail and give feedback. We are in the input phase, so any thoughts are appreciated. If you have any feedback, thoughts, or other ideas please email Sophie ([swaterman@chesapeakebay.net](mailto:swaterman@chesapeakebay.net))

Rebecca presented a draft of the Riparian Forest Buffer Resource Library that would be hosted on the RFB website. The current list of resources is housed on an excel sheet with resources grouped together by category. The following is the list of categories:

Status of the Chesapeake Bay Watershed  
Buffer Overview Resources  
Buffer Implementation and Maintenance  
Resources  
Recent Research (within the past 15 years)  
Historic Research (older than 15 years)

CREP Program  
Conducting Outreach  
Specific Benefits Highlights  
Additional BMPs  
Native Plants  
Invasive Plants

You can find the resource library on the meeting [webpage](#). This resource has had many people look through and vet this list. If folks want to look and suggest other resources, please email Rebecca ([rlauver@allianceforthebay.org](mailto:rlauver@allianceforthebay.org)).

**Action:** If you have the capacity, please look at the library and see if there are any other resources that should be included. Email Rebecca with any additions, comments, or questions at [rlauver@allianceforthebay.org](mailto:rlauver@allianceforthebay.org).

**Discussion:**

Ashley Traut: This is a valuable resource with lots of information. How do we make sure that people find the **right** resources for their own projects? How do we make it as easy as possible for them?

Katie Brownson: We have not gotten to that point yet. I think having clear topic areas outlined and potential questions attached to those topic areas to guide people to the right resource. This particular resource library is also targeted to forest buffer practitioners rather than land owners.

Rebecca: Also adding annotations to the topic areas is a way to help guide people to the right resource.

Rebecca Hanmer: Ashley comment does remind me of users. Is there a way to add a comment section?

Katie Brownson: It's a great idea, we originally had a comment section but had to take it away due to spam. We could maybe bring it back if we find a way to get rid of spam in the comments.

**Update on membership and presentation of at-large nominees, Katie Brownson, USFS**

At this point the Forestry Workgroup Signatory members have been set. EPA usually represents the federal government, but they delegated to the Forest Service to represent the feds. The Chesapeake Bay Commissions spot is still vacant, and we are not going to wait for it to get filled as we want to move this update along.

**Signatory Members:**

**Delaware**

- Keshia Braunskill, Delaware Forest Service
- Patti Webb, DNREC

**Maryland**

- Anne Hairston-Strang, Maryland Department of Natural Resources
- Iris Allen, Maryland Department of Natural Resources

**Pennsylvania**

- Matthew Keefer, Pennsylvania Department of Conservation and Natural Resources
- Rachel Reyna, Pennsylvania Department of Conservation and Natural Resources

**New York**

- Cassie Davis, New York State Department of Environmental Conservation
- Lauren Townley, New York State Department of Environmental Conservation

**Virginia**

- Caitlin Verdu, Virginia Department of Forestry
- Terrance Lasher, Virginia Department of Forestry

**West Virginia**

- Jeremy McGill, WV Div. of Forestry
- Rosalie Santerre, WV Div. of Forestry

**Washington, DC**

- Jim Woodworth, DOEE
- Robert Corletta, DDOT

**Federal Government**

- Julie Mawhorter, USFS
- Katie Brownson, USFS

**Chesapeake Bay Commission**

*Vacant for now*

**At large Nominees:**

- Lydia Brinkley, Upper Susquehanna Coalition
- Craig Highfield, Alliance for the Chesapeake Bay
- Judy Okay, J&J Okay
- Frank Rodgers, Cacapon Institute
- Rob Schnabel, Chesapeake Bay Foundation
- William Byrum, NRCS

The at-large nominees gave some background on why they would want to be an at large member. Their introductions can be found [here](#).

**Action:** Signatory members will be voting on at large membership. We will be announcing the results from that vote at the June meeting.

**Chesapeake Riparian Forest Buffer 2022 Leadership Workshop Debrief, Sally Claggett, USFS**

Sally provided a summary of the discussions at the April 27th Riparian Buffer Leadership Workshop. The workshop had a lot of high-level folks from around the watershed. Management Board and Principal Staff Committee representatives along with their colleagues were engaged for the whole day. It was just a single day workshop with two webinars to help the states prepare their plans. There is now a two-month period for states to build out their RFB strategic action plans. There is a role outside of the forestry workgroup for continued management. Of course, the workgroup will be talking about RFB, but this is a high-profile practice and hopefully the PSC will carry it forward and make sure that there is progress.

Sally opened up the floor to people in the workgroup who attended the workshop:

**Lydia Brinkley, Upper Susquehanna Coalition**

I have conflicting feelings about the day. I know everybody came with a lot of information and we got a lot of great ideas out of it. I just could not help being a little bit sad because everyone talked about CREP like it is such a great program and it did so much... we don't really have it anymore (or we don't have it in the way that was talked about at the workshop). I do not know whose lack of interest is the reason we

don't have something as robust as CREP. I just wish we had something where we could really get a hold of a lot of landowners. I wish there was a really robust program with a lot of money and a lot of technical assistance that was widespread across the watershed.

**Sally Claggett**

We still have CREP, it is something that we have been trying to get a better perspective on.

**Lydia Brinkley**

Some states have great interactions with their USDA partners and lots of support, so they are continuing CREP. It would be nice to have something just as robust again. We have these great technicians working and I feel like we have a lot of staff, we just do not have a consistent program.

**Sally Claggett**

We had some USDA, Farm Service Agency and NRCS folks listening in, so I hope that they did get that message. They have been trying to figure out how to run things smoothly. It will take effort on all sides to get CREP back to its potential.

**Lydia Brinkley**

A lot of states showed that they are running programs on small amounts of money from different people. It has been a challenge.

**Anne Hairston-Strang, MD DNR**

It was cool to see all the different programs of how we are trying to work around the gaps that CREP leaves. We did not talk about our regional coordination opportunities that this group would help us do. Everything that we have seen with some of the new administration with the Farm Service Agency would suggest that outcomes might be different if we approach CREP agreement changes. Each CREP agreement is a state federal agreement. It is not a regional agreement. It's been hard to generate the enthusiasm within the state leadership to take a run back at CREP. There is a new Farm Bill underway, and the advantages that are in there for forest buffers and potentially good support for management can come at a cost to CREP and vice versa.

**Sally Claggett**

Terry Noto addresses that exact point. You can find her report [here](#).

**Matt Keefer, PA DCNR**

I think the homework prior to the workshop helped facilitate discussion. It helped wrap our heads around what else is happening, what to present, and how to get you there. I think if we continue the discussions, I think it will be better than previous efforts. There is a lot of follow up to do. I think taking advantage of the success of the workshop and doing the follow up will be critical.

During our state break out I was a little disappointed. There were only a few of us, 6 people max, and we were all from PA. I felt like we did not get a different perspective. We used that break out time to talk about CREP and federal programs. We talked about the concept of a big buffer program at the watershed level. We have similar challenges and strategies, so does it make sense to have a watershed level program? What are the pros and cons to that? Maybe this is a conversation for the PSC. If we are creating something new, are we creating risks that are so big and bureaucratic that it does not really help us. How do we capitalize on what is working?

CREP is a mystery to me, at DCNR we are not focusing on it as it is something our partners utilize. We are just filling in the gaps of CREP.

**Sally Claggett**

There was a suggestion to have a session just on CREP. We did not want to get into it at this big state workshop, but there is still value. Regional opportunities is a good topic to continue to work on and potentially feed it up.

**Matt Keefer, PA DCNR**

If you have the chance to mention to the PSC: Conowingo has additional focus on buffers and we have just heard last week within PA that our climate allocations/ BMPs are going to have a significant buffer and tree canopy component. It's good! But also, we are not fully ready to implement. There is tons of momentum.

**Anne Hairston-Strang, MD DNR**

I thought it was very valuable that this workshop made us brief our leadership. We have been trying to push forest buffers, but we also need to help leadership understand that there has been a lot of success and strengths. That is something we worked through Maryland's presentation to make sure that they are not just sitting there thinking it is all a failure. We are looking to an ecological outcome. We should do bay wide leadership briefings.

**Patti Webb, DNREC**

This workshop made all our agencies within DE focus on one thing. This whole process that we have gone through has brought everyone together and it seems like the momentum is going again. We are stepping together again, and I think it is a great opportunity. I like the thought of pulling the CREP partners together. FSA has not been super focused on conservation practices; it would not hurt to take the steps and have that conversation again. One of the biggest struggles is creating new programs, we can pick CREP back up and fix it. We also need to make sure that we are filling gaps with other programs.

**Judy Okay**

There is a lot of work that folks within the Forestry Workgroup have been doing in terms of climate change and stream restoration. A lot of it has to do with buffers. Buffers are still relevant, and they are not necessarily tied to CREP. They are tied to urban areas and areas that are suffering forest loss. There is a lot going for buffers in terms of stream temperature and restoration.

**Round Robin**

**Maryland- Anne Hairston-Strang:** We have had a busy planting year. We have the 5 million trees initiative coming our way as it has made it through our legislative cycle. We will have the budget starting on July 1<sup>st</sup> and are looking to hire for 13 new positions. We are also currently trying to grow our contractor capacity. We are also filling some vacancies and should have 5 new foresters starting this month. We are updating our website with training resources for our new foresters. We worked with all HBCUs in MD this spring and did a 50<sup>th</sup> arbor day planting. We hope to build on a community-based outreach.

**New York- Lydia Brinkley:** We are looking to hire 8 buffer stewards and have had the announcements out since the beginning of March to hire folks. We posted the opening to local colleges, indeed, and other platforms but have gotten very few applications for the position. We are getting a million dollars from NFWF to help kick off our natural filters' restoration program. We are also still planting, most of our trees are in the ground. We have a new technician who is leading those plantings this year. It has been

great to have someone run that program. We have engaged probably 300 volunteers at this point, which is big for us as we are in a mostly rural environment.

**Katie Brownson, USFS:** Our new Chesapeake Forest Restoration storymap was recently published! There will be a splashier release in conjunction with Chesapeake Bay Awareness week in June.

<https://storymaps.arcgis.com/stories/aa4a960ab8f14db8b77c46d56dda8b9c>

There is some activity in the GIT funding realm. The Forestry Workgroup had 2 projects that went out to bid this year: the Tree Canopy Funding and Policy and Round table and Working with Local Governments on Conservation Finance Buffers. We had two bids on each project. We are reviewing the bids, and they should be awarded by the end of this month. The contractor from the stream restoration project from last year's GIT funding is trying to set up three webinars this month: one in PA, MD, and VA to share some of what they found and opportunities to minimize forest loss. The next cycle of GIT funding will be starting soon, hopefully in June the workgroup will be taking some time to brainstorm potential projects.

**Julie Mawhorter, USFS:** The latest estimate for when the land use the new Chesapeake Bay land use data and change data sets will be publicly released as around mid-May. We are eager to get our hands on the data set so we can use them to populate those county tree cover fact sheets for the watershed and get those quickly posted up on the Chesapeake tree canopy network website with all the related resource materials. So stay tuned! We want to be as efficient as we can with getting those resources posted and then starting to help with disseminating them broadly as they become available.

**Peter Hoagland, PA NRCS:** In PA we have recently completed a \$1 million cover crop initiative sign up, the demand for applications exceeds it's \$3 million so there's a lot of interest. We have currently received two RCPP proposals from our recent notice funding opportunity we're going to be reviewing those for the next few weeks. One proposal is statewide, and the other is focused within the Chesapeake Bay watershed. In PA we have 5 active RCPPs. 4 out of those 5 are in the Bay watershed focusing on land protection and conservation practice implementation. The RCPPs in the Bay have received \$27 million dollars in NRCS funding and leveraged over \$63 million in partnership contributions. We have also recently advertised conservation innovation grant requests for proposals, we received seven proposals in Pennsylvania and they're currently undergoing internal review. For traditional programs to date we have received \$6.3 million in conservation stewardship programs and \$25.5 million in EQIP. PA is expecting more funds. Field offices are busy. We were able to preserve 125 contracts from cancellation within the last two years. With \$2 million in payments supplements that helped producers weather the rising costs and practice components increase. As a result, farm practices like manure storage in heavy use areas were installed which otherwise would not have been.

**Ned Brockmeyer, PA BOF:** We have planted over three thousand trees in urban areas, with a lot planted in Philadelphia and Pittsburgh. We hired a Woodland Stewardship Manager, John Schwartzer, who brings a lot of experience and great knowledge.

**Matt Keefer, PA DCNR:** Our four new watershed forester positions should be posting soon. Our grant round just closed in early April, and it looks like we have \$1.2 million in requests for buffers and another few hundred thousand for conservation landscaping. Demand continues to increase!