Katie Brownson, USFS
Teddi Stark, PA DCNR
Rebecca Hanmer
Rosey Santerre, WV Division of Forestry
Teresa Koon WV DEP
Frank Rodgers, Cacapon Institute
Ned Brockmeyer, PA BOF
Brenda Sieglitz, Keystone 10 Million Trees
Rebecca Lauver, Alliance for the Chesapeake Bay
Ryan Davis, Alliance for the Chesapeake Bay
Katie Ombalski, Woods and Waters Consulting
Matt Keefer, PA BOF
Kesha Braunskill, DE Forest Service
Patti Webb, DE CREP Coordinator
Craig Highfield, ACB

Iris Allen, MD DNR
Anne Hairston-Strang, MD DNR
Judy Okay
Nancy Sonti, USFS-Baltimore
Dexter Locke USFS-Baltimore
Rob Schnabel, CBF
Robert Corletta, DDOT
Caitlin Verdu, VDOF
Julie Mawhorter, USFS
Cassandra Davis, NYS DEC
Danielle Gift, USFS Durham, NH
Bryan Ellis, NYSDEC
Molly Hassett, NYSDEC
William Byrum, NRCS
Sophie Waterman, CRC

Welcome New At-Large Members
Sophie Waterman announced the new at-large members. Those who are in the 1 year term position can be re nominated in June 2023.

Serving two year term
Lydia Brinkley, Upper Susquehanna Coalition
Craig Highfield, Alliance for the Chesapeake Bay
Judy Okay, J&J Okay

Serving one year term
William Byrum, NRCS
Frank Rodgers, Cacapon Institute
Rob Schnabel, Chesapeake Bay Foundation

Update on the Tree Canopy indicator
Julie Mawhorter went over the proposed changes to the methodology for the Tree Canopy indicator on Chesapeake Progress. The indicator will be updated once the new LU/LC data is available and the methodology has been approved by the Water Quality GIT and the Status and Trends Workgroup.

The Tree Canopy (TC) Indicator is the main way that we measure our outcome that was set in 2014: **Expand urban tree canopy by 2,400 acres by 2025**. Urban in this context is really broad, and means trees in developed areas. Now that we have new land use and land cover change data we are able to isolate the kinds of changes that are impacting urban trees. We currently track this outcome through annual tree planting BMP data that states submit through NEIEN and through high resolution land cover

dataset. The TC indicator methodology was approved back in 2018, but since then there are a couple updates that have occurred that the FWG has to consider.

On the BMP tracking side there are three ways that urban trees can be reported 1) urban tree planting 2) urban forest planting 3) urban forest buffers. The annual progress reporting baseline is 2014 as that is when the outcome goal was established and that is the baseline for the 2,400 acres. For measuring the outcome using land use change data the indicator uses CBP High Resolution Land Use data as it provides the best tracking of TC gains and losses over time. With the release of the new Land Use Land Cover (LU/LC) change data from 2013/14 to 2017/18 we are able to look at the baseline of our outcome and assess gains and losses (net change) since the baseline. We are anticipating that LU/LC change datasets will be updated every 4 or so years and it will be critical for tracking long term trends and progress.

Julie went on to talk about the original proposal to track the outcome. Originally tree canopy over turf, tree canopy over impervious, an "urban" forests changes were benign tracked. *NOTE: Urban forests in this context are only forests that fall within Census Urban Areas & Clusters.* The intent was not track changes across the whole watershed, but rather just trees around developed areas. So the tracking did not include trees on agricultural land or forests outside of the census urban areas & clusters. This can lead to a challenge as the developed landscape is always expanding and Census boundaries are static and too narrow. This way of tracking was never 100% liked, especially since in some parts of the watershed like WV and DE are more rural, but are still planting trees in areas that fall outside the urban clusters. It is an imperfect method but the best that the indicator folks could come up with at the time.

Julie then talked about the new approach to tracking the out coming: **Using the Land Use Change Matrices to help target specific changes of interest.** With the new LU/LC change data there are also new matrices for the watershed as a whole, every state, and every county. They show what the land use was in 2013/14 and what it changed to in 2017/18. The matrix breaks down developed, natural, and ag&extractive. Developed has things like impervious areas, turf, trees over turf. Natural includes things like forest and tree canopy other, which include those small patches of forest. The agricultural portion of the matrix is not really relevant to the TC indicator. The matrix helps show the gains and losses of trees in different categories. Gains minus the losses equals the net change. Julie noted that change within the tree cover classes not being taken into account. For example if a forest changed to tree over turf grass.

Discussion
Rob Schnable: In developed/urban areas how does the matrices take into consideration forest loss to things like stream construction projects?

Julie: It is dependent on the change of cover. If it goes from one type of cover to another in the imagery it gets re-classified. This is something that Peter Claggett and his team would have to parse out in terms of land uses. If there are no trees on a project site after it is complete it will show up as a loss.

Rob Schnable: Say you plant a bunch of new trees in replacement of mature trees, that wouldn't count as cover right, that would be documented as loss.

Julie: New trees have lag time, they often do not show up for 10 to 15 years.

Anne Hairston-Strang: We can't call out specific changes? Like you can not call out the change is due to a restoration project.

Julie: Yeah, we would have to add some GIS components to it to better understand the change.

Rebecca Hanmer: Forest to trees over turf that is not going to be seen as a loss? That will just be a wash.

Julie: We could pull those numbers out and have it be more about the story. We can talk about how trees are now going to be in developed areas and that we are losing forests. But the straight number of change from forest to trees over turf or impervious will not count as a loss.

Matt Keefer: When we communicate the analysis of this it might be good to also include things like annual planting to help tell the whole story. We can't see young trees for a while, so to communicate to folks that things are actually happening and that the analysis might not be capturing everything.
Julie moved on to talk about how the intent is to report on trees planted and the overall land cover change. She noted that the one graph is confusing (below) and that we should have two graphs to show trees planted and the net amount of trees. The graphs will be shown to the FWG when finalized.
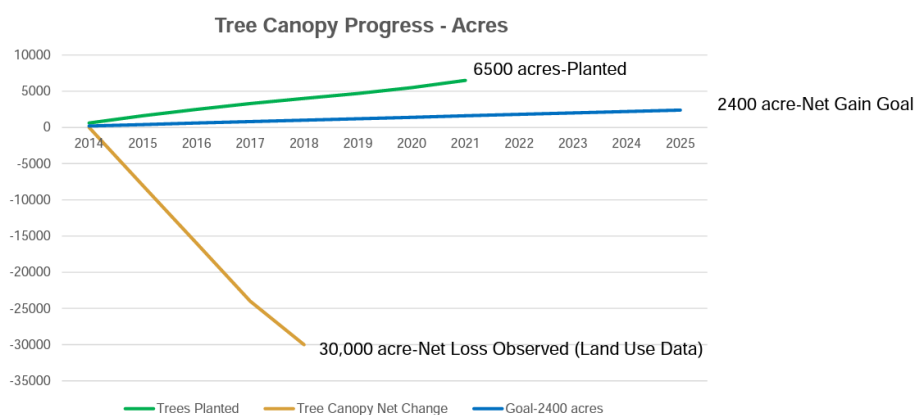
Matt Keefer: When looking at the Tree Canopy Progress Graph, the green line is the acres that we report annually, and the yellow line is the net result of the analysis? So the land use data may not capture the green line for some time period?

Julie: Correct.

Dexter Locke: I would just be careful about talking about land use… as you are really talking about land use / land cover. There are nuanced differences between the land cover (is it a tree, irrespective of land use) versus the land use cover (this is a forest, this is tree over road, tree over building). Reinforcing what you are referring to will help differentiate them. I also want to note that moving from the census designations to the land use land cover is a great way to refine the data. I think moving to the 2014 baseline makes it a lot cleaner.

Anne: The analysis looks reasonable, my concerns are about messaging and what do you do with this information. We are losing urban trees. The natural question is what do you do about it? What factors contributed? How are we addressing those factors or what do we need to do to address them? We are also facing housing constraints, people are beating down the doors for housing, those are some things we are going to have to accommodate.

Matt Keefer: how are we going to leverage funding for more resources ?

Julie: Our 2021 GIT Funding project directly focuses on engaging state leadership on funding.

Paul Emmart: I was struck that methodology excludes agriculture…I think you mentioned that there will be future analysis that will focus on the whole canopy. My question is when will that analysis include ag lands?

Julie: We are compartmentalized in the way our goals are. We have one just on buffers and then one on urban tree canopy. We do not have an overall forest cover goal. We have the State of the Forest Project that will be looking at the same data to assess the forest in the watershed.

Katie: The State of Forest Project or State of the Forest 2.0 is just starting to get off the ground. Iris Allen is taking the lead on that project this summer. We will be taking a holistic look at the forests. We have a real opportunity to tell the whole story, we will be looking at the most recent data and then look backwards.

Next steps
- Review and approval with Forestry Workgroup and WQGIT (June or July) –see TC Analysis & Methods Documentation
- Review and approval STWG (July or August)
- Publish first Tree Canopy Indicator update (August/Sept)
- If you would like to join the State of the Forest 2.0 team please email Iris Allen (iris.allen@maryland.gov)
- Review the Chesapeake Bay Tree Cover Status and Change Factsheet Data Guide. Julie did not go over in the meeting but mentioned if you would like to give feedback it would be appreciated.

Brainstorming GIT Funding Ideas
A brief background on 2021 GIT funding projects were discussed to give members a better idea on what makes up a GIT funding project. The forestry workgroup has two outcomes: Riparian Forest Buffers and Tree Canopy. In 2021 the Tree Canopy outcome GIT Funding project was the Tree Canopy Funding and Policy Round table. The RFB project was the Strategy Development for Innovative Finance of Riparian Forest Buffer Programs.
Sophie went over what projects are eligible for GIT Funding and what projects should focus on:
- Projects should be focused on filling key gaps that address important factors affecting goal and outcome attainment
- Project requests should explicitly demonstrate how the proposed project would support, directly or indirectly, the achievement of one or more related Outcomes.

- GIT funding is intended to support tools or analyses that will make restoration, protection, and stewardship more effective in the future.
- Eligible projects can improve or expand upon or update past projects and can have phased projects that build upon each other (Phase 1/Phase 2).
- Projects should be unique and not duplicative

Katie mentioned that we do not have the 2022 timeline quite yet, but it should be similar to last year with Table 1 for projects due in late August. Once the Table 1 is submitted they go through a competitive internal CBP review. There is not enough money to get every project to get funded so this is a way to rank and prioritize projects and decide which ones will go forward. If they are chosen to go forward the project then works on Table 2 which goes out to bid. Katie noted that projects that get ranked the best are ones that are tied really closely to work plans, and have cross outcome benefits. In 2021 there were bonus points that were given out last year to projects that touched on things like DEIJ and climate.

The floor was then opened up to brainstorm ideas

Anne Hairston-Strang: We've started the 5 million trees initiative… and need to have some of the planting stocks supply questions answered. Pair that with helping people understand that climate adaptive looks like diversity. Some MD extension folks did a deep dive into some of the tree growers and got an inventory of the native species. They also looked at what natives are on the market, demand of native plants, and what natives are resilient and would be a good fit, but are not in high demand. I think expanding on that work and **creating resources and communication to help understand that we need to talk about some species shifts in a climate changed world.** Also taking a look at what plants are native and adaptive or if a plant was not historically here is it still native in the sense of climate adaptation.

Judy Okay: I am wondering if there could be something done to work with state forestry nurseries to help them improve on their stock and getting trees out to people. A couple years ago we had a buffer project where volunteers could not get trees due to issues with the state nurseries. Is there something to be done to help them produce more so that more trees are available?

Annie: National Association of State Fosters has recently done a State nursery survey, where they looked at **the inventory and questions around how to expand state nursery capacity.**

Judy: So you think that is a starting point?

Anne: I don't know how great this would be as a GIT funding project as it is something that is already being addressed.

Frank: There might be an opportunity to **work with fostering stewardship or enhancing leadership in management to properly communicate the new information we have from the new LU/LC data set.** This would follow up the fact sheets by working with folks on the stewardship or leadership side to help make open lines of communication with foresters to talk about the complex land cover data set, which in turn will help it be used intelligently by local leaders.

Rebeccaa Hanmer: I have been thinking a lot about the **continuing maintenance issue of RFB.**

Rob Schnabel: I am thinking about one project that combines the two outcomes by having a project that **addresses the importance of riparian buffer canopies in these urban areas**. We are on track to lose a lot of these buffers in urban areas, especially Baltimore city. If we could document those trees we could potentially prevent the loss of them. Forests are undervalued in urban areas.

Katie: We have a project that is wrapping up this summer that is all about maintaining forest and stream restoration projects.

Rob: My understanding is that the project is looking at how quickly forest buffers can come back after they are cleared. I am more interested in protecting exhausting buffers.

Katie: I think regeneration is a part of the project, but there is a big focus on preventing unnecessary loss in the report. They have been looking at policies, and done interviews to better understand why we are losing forests. I say we wait for the report to come out and assess it before we make any project plans.

Anne: I think Frank's idea could be a good project to partner with the local engagement team.

Frank: I think Anne's idea could also look into private nurseries, especially since WV no longer has a state one.

Katie: Building on Frank's idea and communications I know we have been working with the alliance on a communication assessment on current products and obstacles for both our outcomes. There could be an opportunity to just focus on LU/LC and have more tailored communications about that.

Katie: One other idea that I want to throw is to use new **high-res LU/LUC change data to improve watershed-wide maps of priority riparian habitat to restore.**

Catlin: I love that idea! In VA we know we need more buffers, so having more resources that identify where buffers go and then ranking them could be really useful.

Julie: The nursery stock idea was one on our list, and I am thinking that we should frame it up as a tree canopy project even though it contains buffers too. I am also thinking that having an assessment of the buffer project could be good as it could look at both ag and urban areas and help inform our targeting of planting new ones and conservation of ones in place.

Next Steps
- Continue to refine ideas to get them to a place where we can fill out Table 1

RFB Workshop Check-in
Matt Keefer and Katie Brownson checked in with states about their state action strategies for buffers. Follow up from the workshop was for states to develop their action strategies for buffers. Katie went over the May PSC Meeting where she and Secretary Cindy Dunn provided a brief summary of the

workshop and asked for a call to action that suggests the PSC should take more of an active role. The PSC should be ensuring accountability for the implementation of the state plans going forward. No major feedback from the PSC was given, nor was there any push back against the idea that the PSC take a more active role. At the upcoming July meeting the forestry workgroup will be making more of a formal pitch and will have something for them to respond to and approve. Katie then opened the floor to states who wanted to share about their plans.

Virginia:
VA is still in transition. They do not yet have their Secretary of Natural and Historic Resources and are still waiting on a budget. Those two factors are big and need to be addressed before next steps can happen. With that note VA went on to talk about how their agency specific action plan is making good progress and that it will be a good jumping off point for the Virginia wide plan.

Pennsylvania:
PA has an outline of the actual document that Teddi Stark is putting together. PA has started to look at different funding sources and are just trying to keep things moving. PA is also about to have an administration change in the fall, this is an added factor that PA has to think about. PA is working with Secretary Dunn to firm up programs and to be in a position to move the plans forwards.

Maryland:
MD is in a good place due to the fact that they already have a framework for a buffer plan with MD stream relief. MD is working on edits and making sure to engage with leadership at DNR and other agencies. Moving forward MD is making sure to fator in county level and local government efforts to make sure they have a say in the plans as well.

West Virginia:
WV has started their work group that is addressing the plan. Frank Rodegers spoke on the plan as a member of that workgroup, and noted that he does not work for the state. Frank is impressed with the caliber of people joining the team and is pleased with what is going on so far. The state has a plan and it looks at specific watersheds. For WV doing something specifically for the Bay is new, but going well.

Delaware:
DNRC met with the department of forestry and a few other partners and are putting together the plan.

New York: NY is working on updating their RFB plan. They are almost at the point where they will be passing it around internally before sending it out to the Bay Program.

Katie moved onto talking about the Ensuring Accountability in Riparian Forest Buffer Implementation document. The document gives the PSC something concrete to react to. There needs to be some sort of process to keep buffers on their radar regularly moving forward. Hopefully this does not fall onto the Forestry Workgroup. We want leadership to get more involved with the outcome. Katie went over the potential roles that the PSC could be playing in terms of the buffer outcome:

- *Separate, standalone process*: State RFB Action Strategy Leads report to the PSC on an annual basis, tracking specific accomplishments and progress towards achieving performance indicators

identified in state Action Strategies. As it was with the workshop, these Action Strategy leads would be a MB member or their delegate, i.e., someone who has the capacity to make changes to existing programs or develop new programs as needed. FWG members can continue to play a support role as subject matter experts.

- *Utilize the milestone process-* The PSC could request that states incorporate the performance indicators from their RFB Action Strategies into annual programmatic milestone reporting to EPA. EPA would review and evaluate progress on these milestones. States could then report back to the PSC following the EPA review to summarize their accomplishments and progress on performance indicators.

Matt Keefer talked about a conversation that he, Sally, and Katie had with Secretary Cindy Dunn in which they were brainstorming ways to get the PSC to own the buffer outcome, and to get them to engage in planning of the RFB plants. They should be helping states, and you states be engaining with them. Matt noted that there are many ways to get them engaged, including the ways mentioned above. The goal is to keep this on their mind and to continue to have the conversation to keep the PSC accountable. Discussion

Anne: Do you think the milestone process integration would work? I know in recent years there has been a preference to programmatic milestones more than numeric milestones.

Katie: For this we would get indicators from state buffer action strategy plans and then they would get rolled into the programmatic milestone piece.

Rebecca: I wanted to note that you should be working with leadership, what is it you want from your leadership and how can they be of interest to you and your work.

Katie: If anyone has feedback on this proposal, or you want to talk with your leadership and have them react to this proposal one way or the other just let Sally know so this proposal can be refined for the PSC for July.

Next Steps
FWG should look over the proposal and give feedback.

Report out from STAC Water Temperature workshop   *Rebecca Hanmer, Chair*
Rebecca provided an overview of the draft watershed report, which is ready for feedback. FWG input would be especially useful on the draft recommendations and implementation actions.

Rebecca opened by sharining the message of urgency of getting buffers into the ground as they are the way of the future in terms of BMPs. The draft report speaks to what was talked about during the two days of the workshop. The draft will be going out to participants and they will be asked in particular, to focus on:

- the Implementing Actions
- Is it practical to build these Actions in ongoing programs?
- Need sharper focus on who should take the Actions (goal team, workgroups, other teams)
- Are the priorities right?

Rebeeca then went through the recommendations and pulled out the language related to forestry actions. The slides can be found [here](#). She asked that members to please read through the slides and reflect on how they feel to members, give feedback on any suggestions specifically on the specificity about who should be doing what, whether or not the action works for the section they are currently placed, and give feedback on the wording.

We know stream temperatures are rising, and we also know that air temperature and land use have a big impact on the temperatures rising. Forest land use has the biggest impact on cooling stream temperatures. Are we reflecting that adequately in our implementation actions and do these implementation actions actually bolster and further both riparian forest buffers and forest restoration in urban tree canopy actions. We want this report to be useful to workgroups in the Bay Program.

Discussion:
Paul: It would be very helpful if you identified a driver for why an entity would take an implementation action.

Rebecca: We have a section called rationale, so we have a general recommendation, you're absolutely right that we need to sharpen the implementing actions a little bit more. I think your idea of looking for whether there are drivers could be helpful. It should be noted though that we can't go too far beyond specifics that were covered in the workshop itself.

Anne: This will be an important report for us to frame for future directions for restoration. This bolsters existing commitments.

Rebeeca: Should this be published and put out by the fall to help with RFB plans?

Mett: I think this would be a great thing to have as a reference for RFB plans. This is great ammunition to add to the action strategies. I also want to note that there was a really good discussion of warm water and rising temperatures, are there other people we should be engaging with as we have similar interests. We could be working with people and buffers as it sucha benefit.

Rob Schnabel: Better protection and restoration in head water streams are crucial to protect brook trout. On the equity issue and loss of forest buffer in these urban stream systems. It would be great to have more documentation on hydrology and make it more of a primary consideration, not a secondary consideration because clearly hydrology will determine stream bank erosion will determine ecology and biodiversity in streams. Placing value in forests will help protect them.

ACTION: Look at the slides and report and give feedback to the steering committee by June 10th via Sophie. Rebecca noted that if you were a participant then you will have an opportunity to review a second time.

Round Robin

Maryland

We advertised our 5 Million Trees Positions and got a lot of good responses, so we're looking forward to starting that in July. Also want to remind people that the Society of American Foresters meeting is coming to Baltimore in September. The registration is out, it's going to be a great meeting. We're going to have field tours, including on our Chesapeake Forest Restoration Strategy.

William Byrum
William is a new at-large member and recently joined the FWG. He works out of the Greensboro NC NRCS office. He has been the regional forester of the east coast which covers Maine down to Florida and Puerto Rico for about three years. Prior to this position he was a district conservationist with NRCS.