Middle & Upper James Riparian Consortium

2021 Buffer Summit Summary

Wednesday, October 27th, 2021

Executive Summary

The third annual Buffer Summit of the Middle and Upper James Riparian Consortium was held on October 27th, 2021 as an online gathering. The Buffer Summit included several informative panel presentations, keynote speakers on progress made on buffers within the James River Watershed and the multiple benefits of buffers, and a flash networking session for participants. Panel presentations shared knowledge and resources surrounding native plants, clarified processes for buffer reporting, and shared stories of relationships with communities and the land. One keynote presentation explored multiple-benefit conservation and the key role of riparian forest buffers in sequestering carbon. During the Buffer Summit, participants had the opportunity to engage with presenters and each other through robust question and answer sessions.

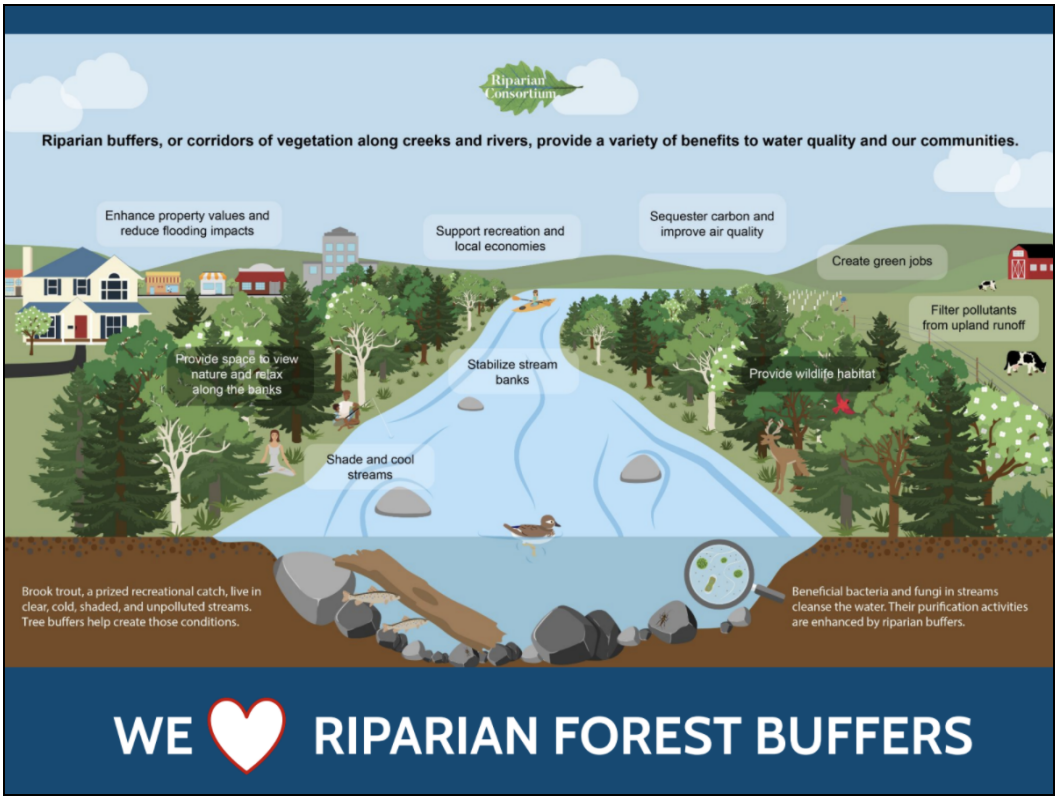
For more information about the Upper and Middle James Riparian Consortium (the Consortium), visit the website at: www.jamesriverconsortium.org. The presentation slides for the meeting can be found at this link, and the YouTube videos of the presentation can be found at this link. A list of meeting participants is included at the end of the meeting summary. Finally, the welcome packet with speaker bios and the agenda for the Summit can be found at this link.

Welcome and Consortium Overview

At the beginning of the Summit, Christine Gyovai of Dialogue + Design Associates (D+D) welcomed participants to the meeting, gave an overview of Zoom's interactive features, and shared the Summit agenda. Christine also asked participants to fill out the Summit evaluation form over the course of the day, and asked participants to introduce themselves in the chat roll. Summit attendees were also invited to participate in a larger Consortium evaluation survey to help guide the evolution and efficacy of the Consortium. For a list of Summit participants and affiliations, please see the end of this summary.

Amber Ellis of the James River Association (JRA) --the Consortium convener--shared a brief overview presentation about the Consortium, which can be found at this link. Amber expressed her gratitude for all of the groups that helped to plan the Summit and for the partnerships that have deepened over the last three years of the Consortium. Amber shared the vision statement of the Consortium: "Growing partnerships to create healthy streamside ecosystems for clean water in the James River today and tomorrow." Amber noted that buffers are vegetated areas along waterways that shade and cool streams, provide space for humans to relax along waterbanks,

stabilize banks, create wildlife habitat, create jobs, sequester carbon, support recreation and local economies, and they provide benefits below the surface of the water.



The Riparian Consortium is focused specifically on the Upper and Middle James River watershed, but benefits and partnerships reach beyond. The missions and values of the Consortium are:

Vision: Growing partnerships to create healthy streamside ecosystems for clean water in the James River today and tomorrow.

Mission: The Upper and Middle James Riparian Consortium is a network of private, non-profit, and public partners. We share expertise and resources to increase implementation, as well as awareness of riparian buffers and their value to landowners, with a priority focus on riparian forest buffers, across the Upper and Middle James watersheds.

Values:

Collaboration -- We can go further together and seek opportunities to support, collaborate with, and learn from diverse partners both within and outside the James River watershed.

Stewardship --- We care for our existing riparian buffers and believe that stewardship is vital to sustained improvements in water quality and successful buffers.

Holistic -------- We integrate practices such as livestock exclusion fencing, streambank stabilization, grass and forest buffers, and conservation easements that respond to landowner, landscape, and habitat needs.

Initiative ------- We are proactive and take initiative to create solutions that respond to the needs of Consortium partners and our streamside ecosystems for long-term health of the James River and our communities.

The Consortium is now in its third year, with the first year focusing on priorities and connecting to develop a structure with teams to implement projects. In its current stage, the Consortium is in an evaluation phase to refine strategies and set goals for the future. The Consortium will be funded through 2024 by the National Fish and Wildlife Foundation (NFWF) and the Virginia Environmental Endowment.

Amber gave an overview of the Action Teams: The Planning Team, the Knowledge Network Team, the Targeting & Outreach Team, and the Implementation Team. She also shared tools that the Consortium has developed over the past years, including the Coordination Tool, which was created for the Consortium by the Chesapeake Conservancy's Conservation Innovation Center to facilitate coordination and collaboration among implementation partners across the James River Watershed. The tool allows for progress tracking and identifies partner work and priority areas. The Streamside Program Report Tool was created by the Chesapeake Conservancy, where landowners can enter a few basic questions about their land and objectives. The tool will then narrow down eligible programs in their respective area and provide a report about their property and relevant program information. The Consortium is seeking feedback on how to improve the Streamside Program Report Tool, and Amber encouraged participants to fill out the survey.

Amber shared that the focus of the Consortium in the next three years is strengthening and expanding what has been working, building a resilient collaborative model, growing regional riparian workforce capacity, piloting the James River Stewardship Program, and increasing local competency in streambank stabilization. Lastly, Amber gave an overview of the findings from this year's urban buffer roundtables, which identified three primary topics of information: Rails, Trails, and Parks; Policy and Land Ordinances; and HOA's, Golf Courses, and Small Private Parcels. More details about these findings can be found in the Urban Buffers Key Issues Report. For more information about the Consortium, visit www.jamesriverconsortium.org.

Comments and Discussion:

- One participant asked in the chat: "I think I saw your work extends into the West Virginia portion of the James. Is that true?"
    - Christine answered in the chat: "The Consortium focuses in Virginia, but we've often found that that partnership needs to extend beyond county or state borders, so we've learned a lot from other partners and welcome new partnerships!"
    - Another participant shared in the chat: "Seems like Sweet Springs in WV is part of the watershed: https://www.sweetspringsresortpark.org/"
    - Amber answered that a small mileage of the James River watershed is in West Virginia, but is not encompassed in the Consortium's watershed geography.

- Christine shared that the Consortium is always open to new members that would like to engage on the Steering Committee, on an Action Team, or to implement new ideas.
- One participant asked in the chat: "Are the Department of Conservation and Recreation Agricultural Programs included through the Soil and Water Conservation Districts (SWCDs)?"
    - Amber answered that the Virginia agricultural cost share program is included through the SWCD. Those programs are listed on the Streamside Program Report Tool as well, as well as at https://jamesriverconsortium.org/project/virginia-agricultural-cost-share-program-vacs/.

Partner Updates

Meeting participants shared the following updates during the meeting and via chat:

- Shereen Hughes of Wetlands Watch shared: "We still have room for more people to register for our buffer training and certificate program. We have scholarships available for people in the James River Watershed and Hampton Roads area. You can register online at: https://cblpro.org/training-calendar/ or contact me at Shereen.hughes@wetlandswatch.org."

State of Our Buffers in the James Watershed - An Update on WIP III Progress

Presenter: James Martin, Department of Environmental Quality, Chesapeake Bay Coordinator

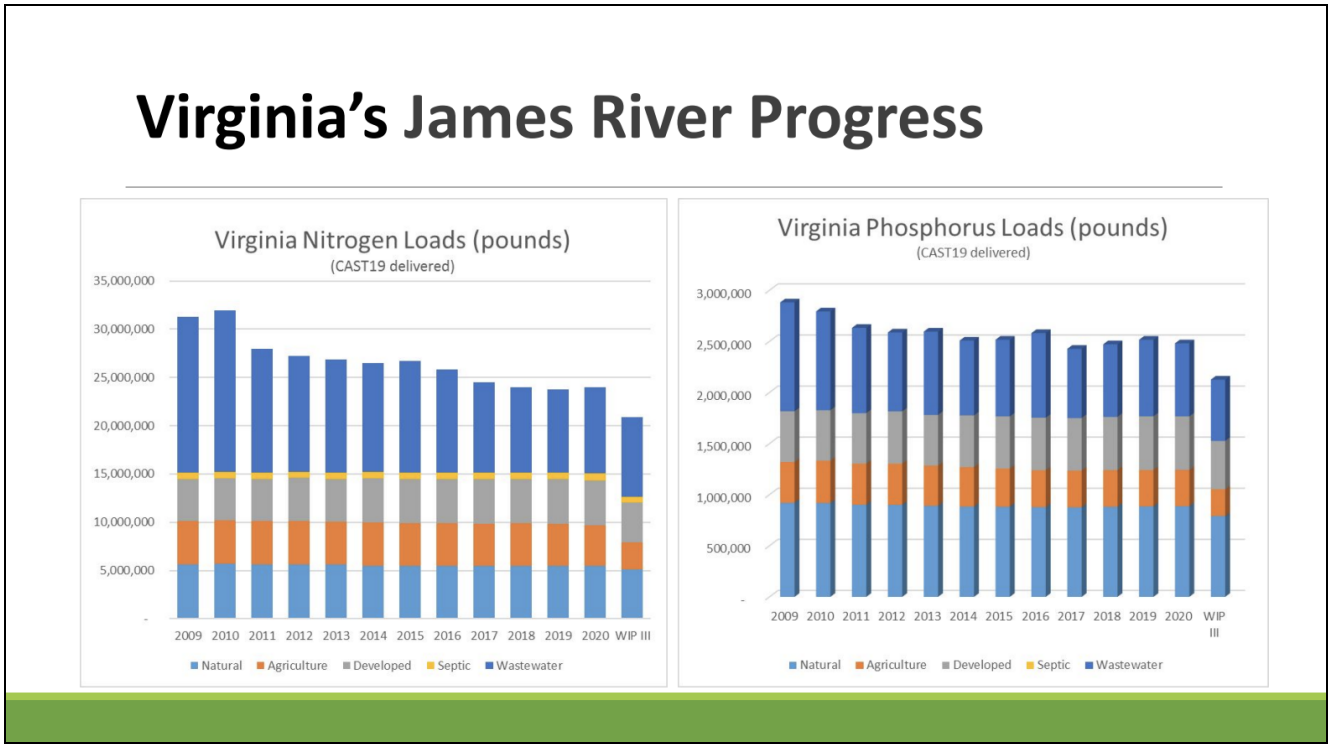
After the Consortium overview, Amber introduced James Martin of the Department of Environmental Quality (DEQ) to give an update on the state of the James Watershed health, Watershed Implementation Plan (WIP) III goals, and a vision for the work that needs to be accomplished. Amber shared that riparian buffers are one of the most cost effective strategies to improve water quality in our streams and rivers, and they are one of the practices called out in the state's Watershed Implementation Plan. James shared updates on the status of reaching the Chesapeake Bay Total Maximum Daily Load (TMDL), WIP buffer goals, and any larger state initiatives that may impact broader efforts. Please see the slides and YouTube video (starting at 26:01) for more details.

At the beginning of the presentation, James asked participants to answer the following Zoom poll question about the first time they planted a forest buffer or were involved with a forest buffer planting project. The questions and the participant responses are included below.

- When was the first time you planted a forest buffer?
    - I haven't planted one yet ***(44% of votes)***
    - 1 year ***(16%)***
    - 5 years ***(18%)***
    - 10 years ***(4%)***
    - 15 years ***(11%)***
    - 20+ years ***(7%)***

Key Presentation Points from James Martin, Dept. of Environmental Quality

- Progress has been made in reducing nitrogen and phosphorus loads. Most reductions have been made in the wastewater sector. Most of the remaining effort to reach Watershed Implementation Plan (WIP) III goals will have to be made in the agriculture and developed land sectors.
- There have been over 7 million pounds of nitrogen reductions achieved in the James River watershed, with 3 million pounds to go by 2025.
    - This will require a tenfold increase in efforts in the agriculture sector.
- Land use has shifted away from natural land and forests.
- Best management practices (BMP) verification is having an impact on progress since buffers only have a 10 year credit duration in the model, unless they are inspected. About 18,000 acres of forest buffers are lost due to expiring credit duration (Virginia Baywide).
- Recent changes in the Bay program have extended the buffer credit duration to 15 years, so 5,000 acres that are currently lost will be counted.
- Efforts to establish, maintain, and conserve forest cover should be expanded, and efforts to change development patterns and behaviors can help improve water quality.



Comments and Discussion

James posed a follow up question to the poll: When was the last time that you visited the site where you implemented your first buffer? Document the visit and get the practice reported. Then participants shared the following questions, with responses included below:

- What type of land cover is deemed 'natural'?
    - James answered that forest lands, anything that has tree cover, and anything classified as wetlands is included in the natural sector. Agricultural lands that are left in a natural state are also counted.

- Is it correct to say that the 'reductions' from the natural category come from conversions to other land uses?
    - James answered that loads from streambank erosion are also included in the natural loads sector, which is mitigated by the implementation of BMPs on the uplands. Natural loads also include reductions from implementing forest harvest BMPs on areas where timber is harvested.
- A participant wrote in the chat: "Does anyone have an estimate of the manpower/costs required to re-inspect these buffers falling out of credit duration? What is being done to address it other than increasing credit duration?"
    - James reiterated that maintenance is important and includes documentation of buffers. The Bay Program is considering using remote sensing as a tool to verify buffers. It is easy to determine if a buffer is in place, but harder to identify if there is concentrated flow that passes through the buffer, rendering it ineffective.
    - Amber shared that the next cycle of the NFWF grant included funding to pilot a stewardship program to keep buffers in the Bay Model. When visiting old sites, the biggest issues they have heard about are invasive species management and survival rate of trees. Funding will be in place for six interns to help with site checks, as well as funding for invasive management and replanting on 300 acres.
    - Another participant shared that the Department of Forestry (DOF) had to hire three riparian buffer specialists to assist with the re-enrollment process for CREP specifically. It takes a lot of time to conduct field visits and look at contracts that are due to expire every year.
    - Amber shared in the chat: "If anyone wants to join the conversation around piloting a program to help with maintenance and verification, we are talking about this at our next Implementation Team meeting on November 9. Email me if you're interested! aellis@thejamesriver.org"
- Another participant asked in the chat: "Is there a list for grass and shrubby vegetation available? Or/and close subs?"

Flash Networking Session

After the presentation, participants broke out into small group discussions of Zoom breakout rooms to focus on the questions: *What is your favorite restoration project, and what type of field activity or site tour would you like to do with the Consortium?* After small group discussions, participants brought their top themes back to the main group for discussion and sharing in the chat roll. Highlights included:

Favorite Restoration Projects

- Any project that the public can visit that's a demonstration project of what's possible!
- Favorite projects included planting for Pocahontas State park on Arbor Day; Catawba Sustainability Center; and massive planting projects done through partnerships between DOF and Natural Resources Conservation Service (NRCS).
- DOF buffer at Augusta Forestry Center (they maintain and use it for seed sources), streambank stabilization project through Trout Unlimited in Highland Co. (Back Creek)

- Landowner in Christians Creek who wanted a stream buffer through her property and restored the old dam so she could power the water system. The project also got cows out of the water and included an upland project as well.
- Landowners that have done CREP not just along streams but large areas such as pastures to regenerate forest, mid-succession, savanna stage. It creates the ability to see the forest emerge. Landowners that are proud of their work are inspiring to work with.

Field Activities

- Field trips - seeing places on the ground is the most fun.
- Seeing a buffer that is going through maintenance for invasive species, urban buffers, and more mature buffers.
- Revisit a heavily invaded site that was restored through a buffer planting 2-3 years later. Visit a functional buffer that grows some sort of product for harvest and sale like nuts; a buffer restoration that started with the ground layer covered, then has all forested layers restored.
- We heard support for seeing multi-functional buffers.
- Visit a public school where a buffer project has been installed on their campus/as a resource for education.
- Potential field activity - trees and music event. Imagine planting trees, live music, and just celebrating all the good stuff buffers bring!
- Some site visits/field days we'd like to do in the future: see more failing buffers because bad data is good/helpful for the future, visiting Augusta Forestry Center so that folks can learn about what they do at the nursery and encourage everyone to plant trees, learning more about how grass and forested buffers can work together.

Other themes

- Themes - long time coming projects actually coming to fruition. Pride and inspirations of going back to sites planted years ago and seeing them flourish.
- Invasive species - how do we manage them with an eye toward protecting aquatic species?

Panel 1: For the Love of Plants: Growing Community Support for Native Riparian Species

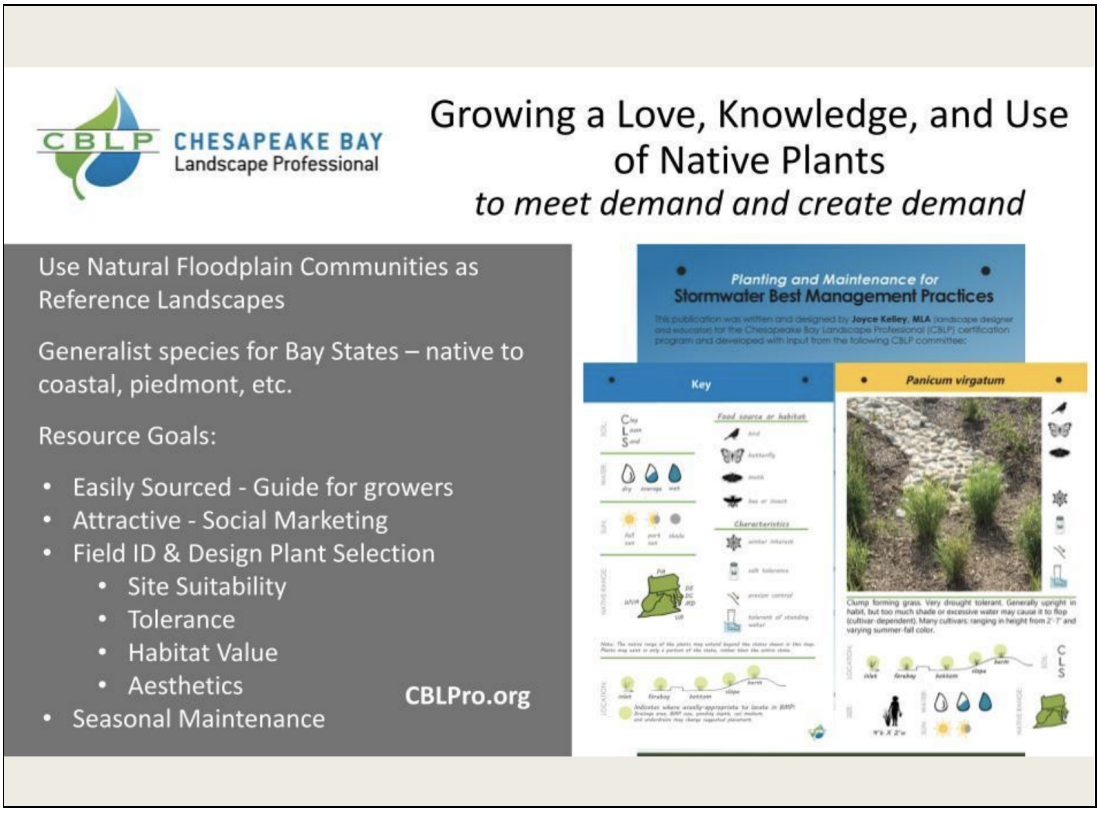
Panelists: Shereen Hughes, Wetlands Watch and Chesapeake Bay Landscape Professionals; Joshua McLaughlin, Department of Forestry; Erin Ling, Virginia Tech; and Virginia Witmer, Virginia Coastal Zone Management Program

Shereen Hughes of Wetlands Watch and Chesapeake Bay Landscape Professional (CBLP) introduced the theme of the panel presentations. Shereen's presentation discussed the need for planning considerations around habitat, plant, species, and production. Shereen then introduced Joshua McLaughlin, who is the nursery manager at the Augusta Forestry Center. Joshua gave highlights on what is grown at the nursery and the process of growing seedlings. Next, Shereen

introduced Erin Ling of Virginia Tech. Erin gave an overview of community-based social marketing, especially as it relates to marketing riparian buffers. Then, Shereen introduced Virginia Witmer, who shared the Plant Virginia Natives Marketing Initiative process and resources to promote the planting of native species. The presentation slides from this panel are available at this link and the presentations can be viewed in the first YouTube video.

Key Presentation Points from Shereen Hughes, Wetlands Watch & Chesapeake Bay Landscape Professionals

- CBLP has created a native plant guide to help professionals choose the right native plant for the right place. It is recommended that professionals go to a site and evaluate existing native plant communities, using this as a reference landscape.
- Recommended native plant species are generalized across the Chesapeake Bay region, easily sourced, and marketed attractively to meet and create demand.
- The species list includes grasses, sedges, and perennials that do well in the site environments.
- The guide is a resource that promotes the use and knowledge of native plants and can be used as a list to provide to growers.
- The resource can be purchased at https://certified.cblpro.org/product-category/manuals/.



Key Presentation Points from Joshua McLaughlin, Department of Forestry

- The Augusta Forestry Center is located in Crimora, Virginia with 190 acres that are irrigated by water from the South River. Roughly 17-25 acres of seedlings are planted every year.

- Core activities at the nursery are divided according to seasons. Sowing is done in the spring in a manner that mimics what nature does.
- Species at the nursery include soft mast species, hard mast species, and softwood. Specific species of interest that they grow are dogwoods and red bud.
- The nursery sells to private landowners, forestry companies, coal companies, cooperative extension, and government agencies. The nursery is a self-sustaining branch of the Department of Forestry, with tree sales keeping the nursery funded.
- A list of species and prices can be found at www.buyvatrees.com.

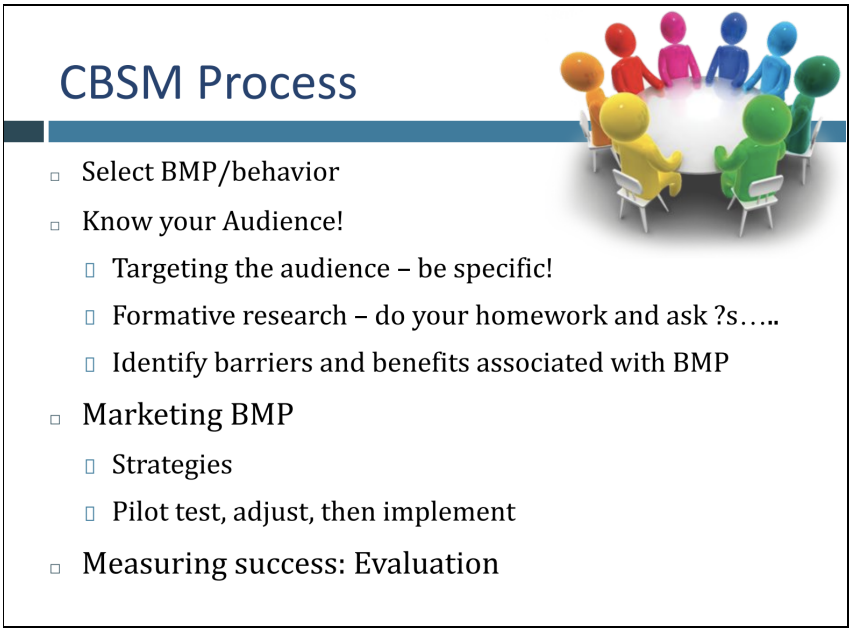
Comments and Discussion

- When VOF "fumigates" - what does that entail?
  - Josh responded that the nursery has an exemption in the Code of Virginia to use methyl bromide and chloropicrin as soil fumigants. The ground is injected and covered with plastic for seven days.
- Are there Nursery restrictions around native/non-native?
  - Josh answered that the nursery does raise some non-native plants, and it is often a topic of discussion. The ultimate goal remains to push out more native than non-native species.
- Do you break your planting plots up by where the seed was collected, i.e. local ecotype?
  - Josh shared that it depends on how much they have. If a seed is provided and asked to be kept separate, the nursery will accommodate. Hard mast trees are easier to keep separate. Oftentimes, however, the nursery will mix plantings to ensure genetic variation.
- Do you often run out of inventory? Also, do you require that private landowner buyers own a certain acreage?
  - Josh responded that they do run out of inventory. The nursery has a yearly plan for planting numbers, but growing factors might impact how much of the plantings grow.

- How many total trees do you produce each year? Any plans for expansion?
    - Josh answered that this year, they are looking to produce 5 million total trees, including conifers and hardwoods. Next year will be an expanded season, with a total of 7-8 million seedlings.
- How do you feel about receiving volunteer seed collections?

Key Presentation Points from Erin Ling, Virginia Tech

- Community based social marketing (CBSM) is the use of marketing principles and techniques to promote the adoption of behaviors that improve the health or well being of the target audience or society as a whole.
- There are three reasons an audience won't adopt a behavior:
    - They don't know about it.
    - They do know about it, but they perceive significant challenges or barriers.
    - They do not perceive significant barriers to doing the new thing, but they do perceive significant benefits to continue doing what they're doing and, sometimes, this is nothing.
- People gravitate towards behaviors with the most benefits and fewest barriers. Targeting your audience and focusing your messaging is important.
- Understanding target audiences and what motivates their behavior is key.
- You can take pieces of the CBSM process and greatly improve what you're doing.
- The more specialized and the more specific that you are, the more it's a conversation, and the more successful it will be.
- CBSM tools include:
    - Prompts
    - Commitment
    - Norms
    - Communication
    - Incentives
    - Remove external barriers

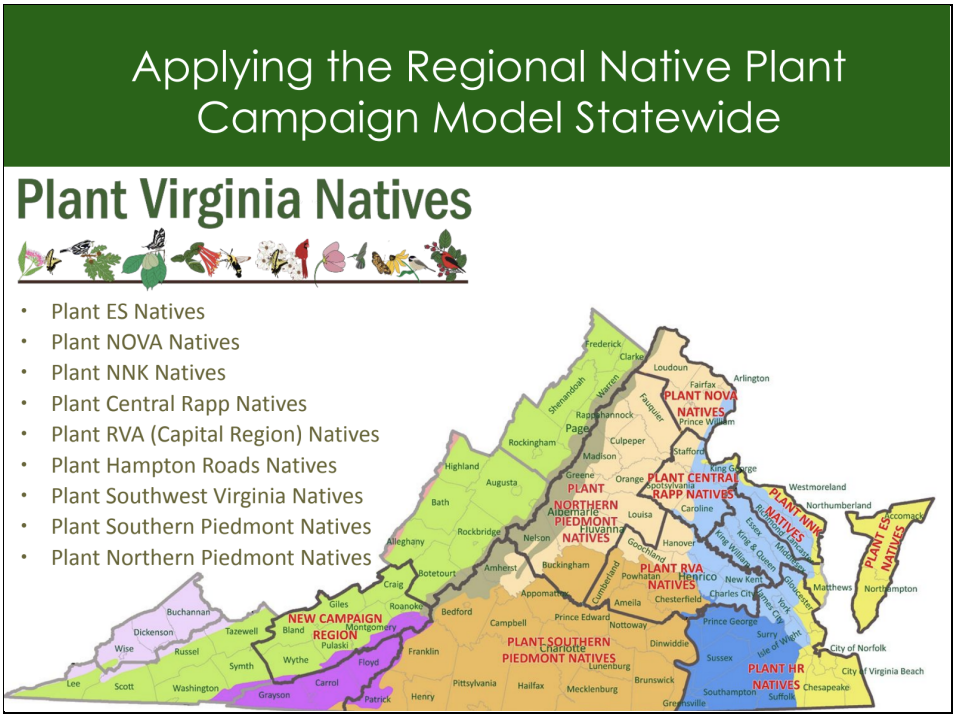


Comments and Discussion

- One participant wrote in the chat: "Erin, this is great. You make me realize that the Piedmont Environmental Council (PEC) has been conducting CBSM for the past 50 years but you give it a framework that makes sense."

Key Presentation Points from Virginia Witmer, Virginia Coastal Zone Management Program

- Virginia Coastal Zone Management Program (VCZM) launched the "Plant Eastern Shore Natives" campaign in 2009 with a community social based marketing approach to go beyond awareness, to change individual behavior and to make planting natives the social norm. This became a model for more campaigns in the Virginia coastal zone, and is expanding.
- The regional native plant campaign model was designed based on research. This research identified the barriers that are inhibiting the public from planting natives, the benefits that they would receive by increasing their use of natives and the outlets through which they receive their information.
- During the research process, the attendees that provided research data were extremely glad to be involved in the feedback and process.
- The campaign's work with local and regional native plant providers create point of sale materials to help customers find native plants.
- During public events, commitments or pledges to plant natives are collected, and sticker decals are handed out to help spread the message.
- The campaigns effectively use captivating communications to convey the benefits and to increase the knowledge of native plants.
- Each regional full color guide highlights about 100 species with a photo description, symbols for light and moisture requirements, and wildlife value.
- More information can be found at www.plantvirginianatives.org.



Comments and Discussion

- Is the Garden Club of Virginia on board?
    - Virginia answered that they are. The campaign is all about collaboration. For example, for the Plant RVA Natives campaign, local garden clubs are part of the steering team.
- Erin shared in the chat: "Such great communication, Virginia! I just got my Plant SWVA Natives sticker on my car!"

After Virginia's presentation, Christine asked participants for feedback on an Upper and Middle James Riparian Plant Guide. Participants were asked to answer the following questions in the chat roll:

1. *What information should be included in a Riparian Plant Guide?*
2. *Which audience(s) would most benefit from a Riparian Plant Guide?*
3. *Which species do you need the most for your buffer projects?*

Ideas from Summit participants included:

What information should be included in a Riparian Plant Guide?

Plant Information

- List of appropriate plants
- Maintenance of plants
- What natural plant community that plant is native to and associated plants
- Top native species, availability - where to purchase, site prep info, etc...
- Time of year to plant different species
- Whether the plant needs a tube or other protection, or can be planted without
- Trees, shrubs, and herbaceous in riparian areas. Would be good to see what counties they are native to, wet/dry, size, wildlife
- How-to guide, invasive species ID
- Density recommendations for specific plants
- Alternatives to non-native with similar look
- Species for different soil types
- Plant communities
- Plants for all layers - canopy trees, understory trees and shrubs, herbaceous layers
- Pioneer vs slower growing
- Ease of availability
- Potential toxicity to horses/cattle

Benefits

- What are the public benefits?
- How will it help the farming operation
- Beautiful pictures with butterflies and birds
- Agroforestry benefits

Site Information

- Wildlife value, site requirements (moisture, light)
- Sample of design and maintenance

- Photos
- What, where, when, and how
- Native areas, soil moisture tolerances, benefits
- Whether it does well in mountains (upper James) or piedmont (middle James)
- Urban tolerance
- Whether it can be started in a shady spot, or needs to be started in a place with lots of sunlight

Which audience(s) would most benefit from a Riparian Plant Guide?

Residential

- Landowners
- People in urban areas
- Landowners that have an existing buffer or interested in new one
- Suburbanites
- Any non-professionals that like gardening
- Rural residential

Officials/Organizations

- Maintenance crews (like for VDOT or municipalities)
- HOA's
- Locality staff
- Nonprofits doing riparian planting projects
- Schools/kids to take home to parents

Professionals

- Virginia farmers
- Pros and property owners
- Newbies in buffer practitioner world to help guide plant selection
- Landscape architects

Which species do you need the most for your buffer projects?

Trees

- Sycamore
- Red maple
- Oak
    - Swamp white oak
    - Pin oak
    - Swamp chestnut oak
    - Willow oak
- Trees and shrubs
- Fast growers like sycamores, river birch, red maple
- Hackberry
- Native fruit trees

Other

- Shrubs and herbaceous trees are usually available
- Herbaceous plants and where a homeowner can purchase

- Fruit and nut producing for those interested in wildlife - Persimmon is often asked for as well as fruiting shrubs like elderberries.
- Various dogwood shrubs
- Mix it up! Wildlife species often like a soft edge... transition open land to herbaceous to shrubs to trees
- Groundcovers

Panel 2: Making Buffers Count: Dispelling the Myths and Sharing Tips for Reporting Projects

Panelists: Sally Claggett, U.S. Forest Service; Bryan Hofmann, Friends of the Rappahannock; Bill Keeling, Department of Environmental Quality; and Judy Okay, Consultant to the Department of Forestry

After the riparian plant guide discussion, Amber Ellis framed the topic for the second panel of the Summit. Buffers are part of the larger cleanup plan for the Chesapeake Bay, and a lot of effort goes into tracking the collective impact of work in riparian areas. Amber shared the Consortium's Coordination Tool, which tracks data of buffer reporting in the Upper and Middle James watershed. It is the most comprehensive tool from the reporting model that is used for buffers, and the information can be viewed from different scales. Amber then invited participants to answer poll questions via a Zoom poll. The questions and the participant responses are included below.

- Have you planted a riparian buffer at your organization?
    - Yes ***(64%)***
    - No ***(27%)***
    - I've planted one, but outside my organization ***(9%)***
- Have you ever reported a project to DEQ through the BMP Warehouse?
    - Yes ***(27%)***
    - No ***(59%)***
    - Not sure ***(14%)***

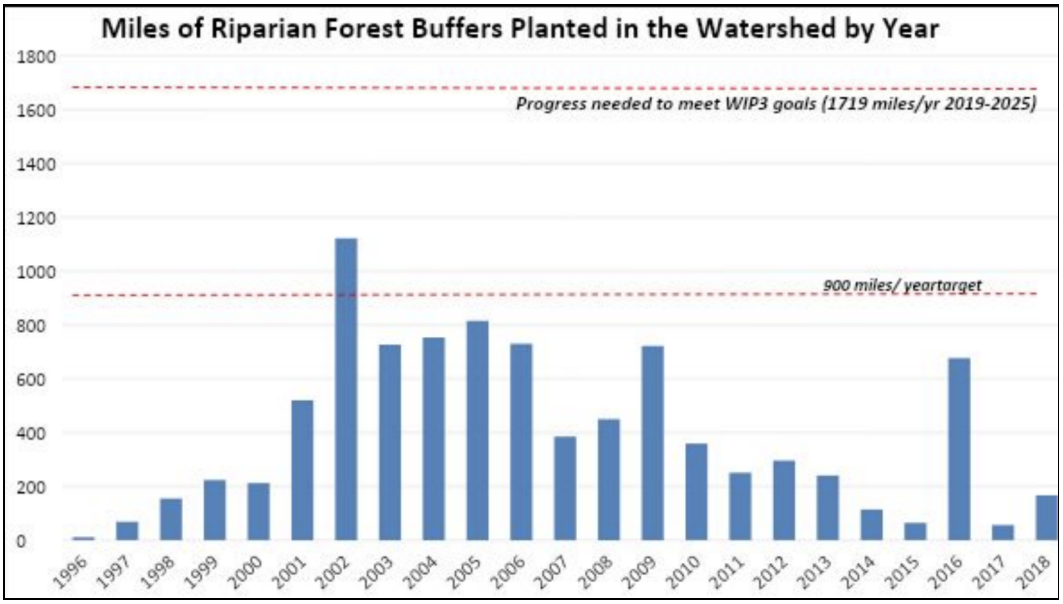
Discussion

- One participant asked in the chat: "Does the reporting tool work outside the James?"
    - Another participant answered in the chat: "The Streamside Report Tool just covers the James watershed for now."

Amber then introduced Sally Claggett with the U.S. Forest Service. Sally's presentation covered why it is important to report and what it means for overall buffer progress in the Bay. Next, Christine introduced Bill Keeling, who gave an overview of what reporting to DEQ for buffers looks like in Virginia. Christine then introduced Bryan Hofmann, who is the Programs Manager for Friends of the Rappahannock. Bryan shared how their non-profit is tackling reporting and making their buffers count, as well as a voluntary tree tracking module that was created. Lastly, Christine introduced Judy Okay, who is a consultant to the Department of Forestry. Judy's presentation shared tips to help reporting and monitoring to keep buffers in the model. Please see the panel presentation slides and YouTube video (starting at 1:21) for more details.

Key Presentation Points from Sally Claggett, U.S. Forest Service

- Sally shared a chart that demonstrates the miles of riparian forest buffers planted in the Chesapeake Watershed since 1996. 2002 had the greatest mileage, with recent years well below the 900 miles/year target.
- Progress and WIP III goals are also differentiated for agricultural riparian forest buffers and urban riparian forest buffers.
- A new hyper-resolution hydrography data layer will be implemented to track change to determine net-gains of buffers.
- Outcome Attainability is being analyzed to understand progress and goals. Buffers are one of the top goals unlikely to be met in the Bay Model.

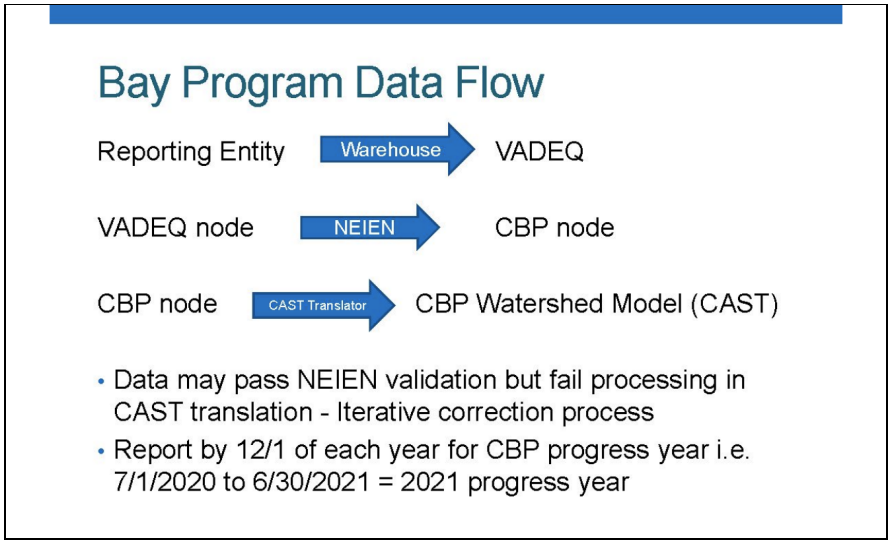


Comments and Discussion

- What happens if VA doesn't meet goals?
    - It depends on the goal. If the buffer goal is not met, Virginia can make up for it with other BMPs. If there is no other way to make up for it, Total Maximum Daily Loads (TMDL) goals may not be met.

Key Presentation Points from Bill Keeling, Department of Environmental Quality

- The BMP Warehouse reporting application can be found at https://apps.deq.virginia.gov/BMP/. This has been used for Annual Progress reporting for buffers in the Bay Program since 2015.
- 18,741 acres of forest buffers have been reported in the Bay Program. This number accounts for credit duration, or lifespan, wherein a BMP expires after 10 years if it is not inspected.
- Reporting has to be non-duplicative of another organization's reporting.



Comments and Discussion

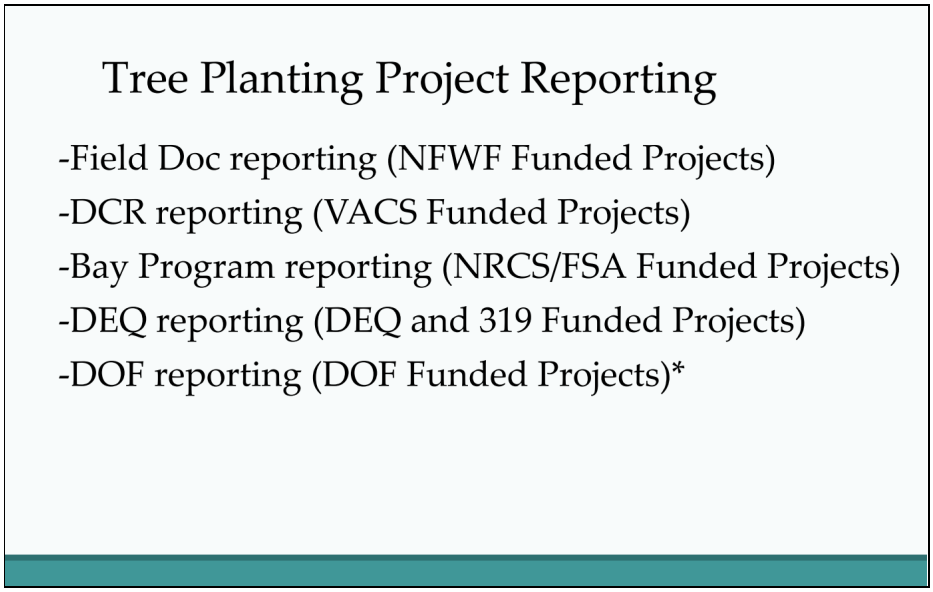
- Sally shared in the chat: "Correct Bill. For the chart I showed, we worked with the data to discern what was accomplished each year, not what was dropped for lack of verification."
- Can you go back years to report unreported projects?
    - Bill answered yes, and it is reported as the date it was implemented. If the pertinent measures that are needed to report are included, the reporting can be passed on.
- What information is needed for buffers?
    - James Martin responded in the chat: "Minimum data needed for reporting a buffer is the date it was installed, the extent (acres) installed, if it was forest or herbaceous, and the county where it was installed. Often we can get more credit with more information, such as stream length, average width, more detailed geographic location, associated livestock exclusion, number of livestock excluded, etc."
    - Bill Keeling wrote in the chat: "What is needed varies by the National Environmental Information Exchange Network (NEIEN) BMP names, of which there are many that map to a forest buffer or other forestry BMP. If you download the Agricultural or Urban-Suburban General Upload template from the BMP Warehouse (WH), each template has the BMPs names listed in a dropdown menu as well as a dropdown list for measures needed. All records need a date installed, the name, measure, measure unit, extent installed, and some form of location (County/City, HUC12, VAHU6 code, or lat/long coordinate pair). Also all reporting to CBP has to come through VA DEQ. USDA and all other federal agencies have to report to DEQ."

Participants were then asked to respond to the question: *What's the biggest barrier preventing you from reporting your buffer projects?* Responses included:

- One of my original barriers was assuming someone else was doing it!
- Staff time for multi-year monitoring and verification.
- Now, it's a worry about change of staff and making sure that as an organization we are prepared to verify in 10 years.
- James Martin wrote: "If the project is more than 10 years old, please include any dates for inspection so we can continue to count that older project through time."

Key Presentation Points from Bryan Hofmann, Friends of the Rappahannock

- Friends of the Rappahannock follows different methods for tree planting project reporting, taking a mostly hands-off approach.
- Funders such as the National Fish and Wildlife Foundation (NFWF) and Virginia Environmental Endowment (VEE) require grantees to submit projects to FieldDoc.
- In partnership with VDOF, Friends of the Rappahannock created a voluntary tree tracking module to crowdsource tree planting data. QR codes are attached to trees that are sold for landowners to voluntarily input their tree planting data. Partners will then go into the community to verify the tree plantings and the GPS coordinates. DOF then submits to DEQ to be included in Bay Model. Tree plantings can be submitted at: https://vdof.maps.arcgis.com/apps/MapSeries/index.html?appid=f41f8576587948Ocab068547645d9d8e.
- The form used by inspectors can be found at: https://survey123.arcgis.com/share/b3005e1bd07d4504962c003467c1ab72?portalUrl=https://FOR.maps.arcgis.com.
- This resource is essential to capitalizing on all data that individual landowners are contributing in planting trees, which can help Virginia meet the WIP III goals.

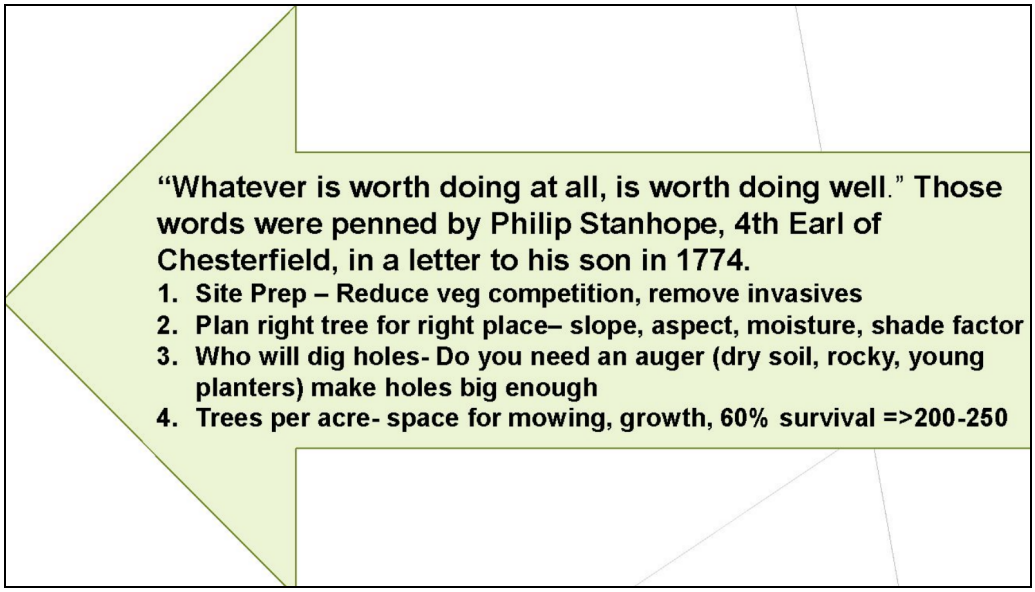


Comments and Discussion

- Amber wrote in the chat: "The FieldDoc was the biggest myth that got busted for me a few years ago!" Participants noted that buffer projects reported through FieldDoc are not submitted to the Bay Model and entities should determine who on the project team (NGO, locality, PDC, SWCD, etc.) is submitting to DEQ to be included in the Bay Model. Bill Keeling confirmed that information submitted to FieldDoc does not make it way into the model.
- Shereen suggested that people who have CBLP Buffers Certification could verify the individual tree plantings as well.

Key Presentation Points from Judy Okay, Consultant to the Department of Forestry

- Beginning a project with the end in mind is important. Start with conducting site visits, sourcing native plants early, identifying planters, planning in advance for maintenance, and following cost share protocols.
- Consider a comprehensive set of factors when conducting site preparation. This includes planning for correct tree species, hole digging, and trees per acre.
- Plan ahead for the unexpected to protect from damage, for a maintenance plan to ensure successful planting, and for continued monitoring to verify buffer function.



Comments and Discussion:

- Sally shared in the chat: "Judy authored 'Green Side Up' a planting guide for beginners and intermediate tree planters - it has the info she is presenting here."
- Amber wrote in the chat: "Great panel that covered why it matters at the big scale, how we track, and how we make sure these buffers stay intact!"
- Sally shared in the chat: "Cool idea to use a drone to check the tubes!"
    - Amber wrote: "We need a Consortium visit to practice drone flying at an old buffer!"

Buffers with Benefits: Carbon, Biodiversity, and Partnerships

Presenter: Dr. Kristen Dybala, Principal Ecologist at Point Blue Conservation Science

Amber Ellis introduced Dr. Kristen Dybala of Point Blue Conservation Science and framed the topic of the presentation. The restoration and conservation of riparian ecosystems and buffers are prime candidates for providing multiple benefits. For example, riparian restoration has enormous potential to sequester carbon and support climate change mitigation goals, while simultaneously supporting biodiversity conservation goals, water quality goals, and even community engagement goals. Dr. Dybala's presentation can be found at this link, and viewed in the YouTube video (starting at 52:14).

Key Presentation Points from Dr. Kristen Dybala, Point Blue Conservation Science

- Point Blue Conservation Science works in bird conservation and collects data to track how bird populations are changing over time, how they're responding to habitat restoration, and climate change impacts.
- 2.9 billion birds have disappeared since 1970. Birds are indicators of ecosystem conditions.
- Multiple-benefit conservation entails conservation efforts designed to simultaneously benefit local communities of people, enhance ecological function, and improve habitat quality for fish and wildlife.
- Strengths of this approach include:
    - Constructive evolution of existing approaches
    - Inclusive of multiple worldviews and values
    - Easily communicated
    - Solutions-oriented
    - Compelling
- Riparian forest biomes have the highest carbon stocks. Planting riparian trees accelerates carbon accumulation. Research suggests that riparian forests sequester carbon and that restoration could be a good strategy for carbon sequestration.
- There are trade-offs and synergies in benefits. For example, the highest level of carbon sequestration and bird abundance in a riparian buffer may not coincide. The way that riparian restoration projects are designed and managed has an impact on how much of each benefit it realized.
- Scientists can help provide supportive information, but fostering partnerships and helping community members identify their goals is part of the overall vision.

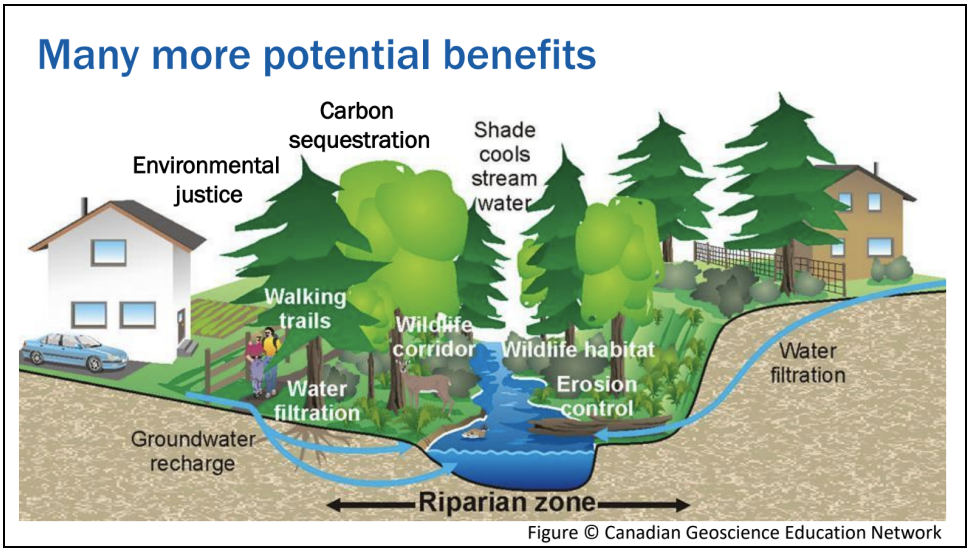


Figure © Canadian Geoscience Education Network

Comments and Discussion

- Christine asked: What is the greatest gift or value that you can bring to a partnership, and what was a collaborative experience that was successful for you?
    - Dr. Dybala answered that her organization supports partnerships and strategic planning. For example, they have hosted climate smart restoration workshops to help groups understand the vulnerabilities to climate change that their restoration project goals face, as well as ideas for addressing those vulnerabilities. This

facilitative role helps groups define their goals and get specific in order to move the project forward.

- Through these findings, have you had any specific thoughts about how riparian plantings can be designed differently to better support bird habitat?
    - Dr. Dybala answered that it depends on the goals and location. Different species need different things, and a focus is on restoring function and process so that you can have a mix and a regular cycle that is continually renewing the habitat and creating a mosaic that can support all of them together.
- Shereen wrote: "Great to hear about your work and it aligns well with the work of Wetlands Watch, CBLP and the Chesapeake Conservation Landscaping Council - CBLPs focus on these eight essential elements (and multiple benefits) of conservation landscapes https://www.chesapeakelandscape.org/resources/the-eight-essential-elements/"
- Amber wrote in the chat: "Great point about using the multiple benefits of buffers to identify who is missing in the conversation!"
- Lucas Tyree wrote in the chat: "I agree, for small BIPOC-led organizations like my own, it is the only viable option to be funded regularly and to operate effectively."
- Sally wrote in the chat: "Seems as though this approach would be beneficial to our funding partners. Have you seen this?"
- Amber wrote in the chat: "That function question is a good one! In agreements with landowners it often says that it must remain the function of the buffer overtime, but what does that mean from a qualitative standpoint?"

Participants were then invited to respond to the questions:

- *What is your greatest gift/value that you can bring to a partnership?*
- *Share a positive collaborative experience that was with more than two partners. What made it a success?*

Responses from Summit participants included:

Gift/Value:

- Listening skills
- Building relationships and connecting the dots
- Love for what I do and for the people I serve!
- History on the land with knowledge that predates colonization

Successful partnerships components:

- Relationships and experiences together
- Finding common ground between two different organizations/entities
- Communication skills - being sure that everyone is on the same page, and even being repetitive when necessary!

Panel 3: Resilient Collaboration: Building Authentic Partnerships and Leaning into Your Gifts

Presenters: Christine Gyovai, Dialogue + Design Associates; Ruby Stemmle, ecoLatinos; and Lucas Swampdog Tyree, NDPonics

Amber Ellis gave an overview of the theme of the panel. Collaboration is at its finest when everyone is able to do what they do best! As the Consortium moves into year four, a goal is to ensure a resilient collaborative that is set up for the long term and continues to grow partnerships with new partners, but to do so authentically and with intention.

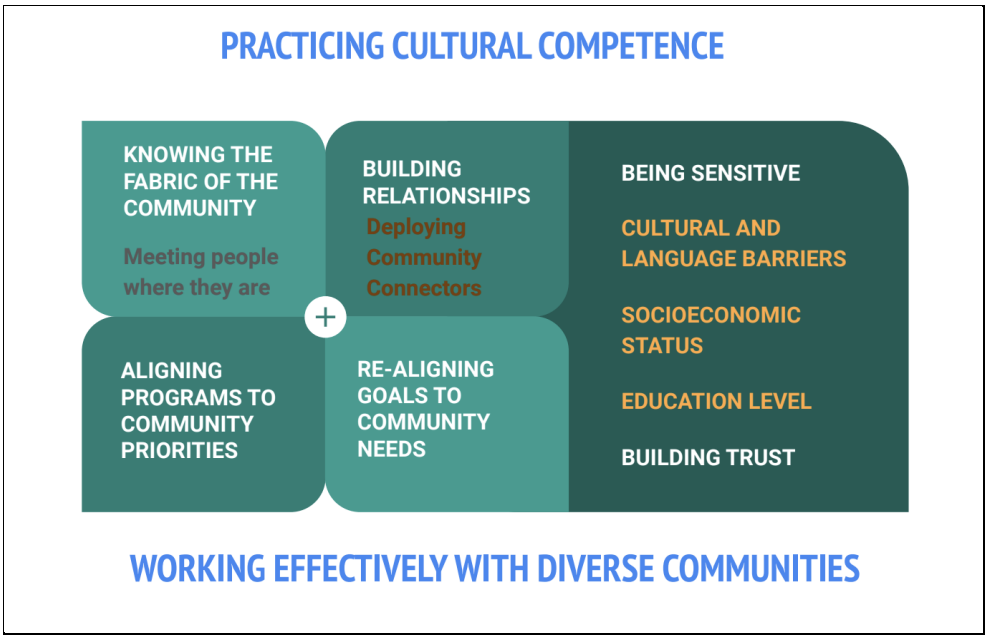
Amber introduced Christine Gyovai with Dialogue + Design Associates, Ruby Stemmle with ecoLatinos, and Lucas Swampdog Tyree with NDPonics. Christine shared methods to build successful and resilient collaboration, as well as methods for finding your role in a large collaborative. Ruby's presentation covered ways to engage new and underrepresented partners, particularly in the Latino community. Then, Luke's presentation gave an overview of the land protection and riparian work that is done through his indigenous-led non-profit, NDPonics. Please see the panel presentation slides and YouTube video (starting at 1:20:13) for more details.

Key Presentation Points from Christine Gyovai, Dialogue + Design Associates

- Dialogue + Design has identified ten principles that build community collaboration and resilience stemming from a number of long-term community engagement efforts. Overall, resilience is built on the local ideas of local leaders.
- Factors that make a successful and resilient collaborative include:
    - Clear, transparent means for decision-making and leadership
    - Plan with the end in mind
    - Welcome new members and share the story of the collaborative
    - Celebrate leaders as they move on to new ventures
    - Identify diverse long-term funding
    - Identify a sustainable organizational structure
    - Keep the momentum up
- Facilitators and the process should focus on community members and leaders.
- Engaging the community over the long-term for authentic collaboration takes time.
- More collaboration stories are told on the Collective Resilience: We Rise podcast: https://yeswerise.org/.

Key Presentation Points from Ruby Stemmle, ecoLatinos

- The mission of ecoLatinos is to empower the Latino community in the pursuit of social and environmental justice through engagement, education, and activism across the Chesapeake Bay Region. More information about ecoLatinos can be found at: www.ecolatinos.org.
- Studies show that Latinos are more concerned with climate change than non-Latinos. Many Latinos, however, are never contacted by environmental organizations working to reduce global warming.
- Breaking barriers to engage with the Latino community around environmental issues involves practicing cultural competency. To Ruby, this includes:
    - Knowing the fabric of the community
    - Making an effort to meet the community where they are at
    - Deploying community connectors
    - Aligning programs to the priorities of the community
- Different communities interact with the environment and their space differently. Ruby gave the example of a family at a park. Organizations may feel that Latinos are not using the public spaces appropriately, but Latinos may feel that infrastructure is not sufficient at parks. Services should align to community needs.
- Work should extend beyond language barriers and translation by thinking about ways to summarize ideas and concepts to be understandable and clear.
- Keep in mind community readiness versus organizational goals.



Comments and Discussion

- Christine asked how a collaborative can engage people to lean into their gifts and to make generational land ownership more known.
    - Ruby answered that organizations need to expand the diversity of their teams and engage institutions in communities to establish relationships, such as churches.
- One participant wrote in the chat: “Interesting and accurate view of the families and their park visits!”

Key Presentation Points from Luke Swampdog Tyree, NDPonics

- NDPonics has purchased land in the Blue Ridge Mountains of Virginia that belongs to the Tutelo People, Eastern Siouan linguistic people, the Monacan Indian Nation, and the Saponi Nation of Ohio. Work is done with groups in the Algonquin community as well.
- The work of NDPonics focuses on purchasing back 500 acres of land for conservation easement and ownership after it was taken from indigenous people from the Forest Service and through intimidation and violence. Getting the land back allows NDPonics to do indigenous permaculture.
- The property has two miles of a cold water stream. NDPonics received a mini grant through the Consortium in fall 2021 with JRA to protect and restore buffer along the stream.
- Old growth, pre-Columbian-contact trees grow on the property. Luke is a strong proponent of using the native seed stock from the site location.
- NDPonics has worked to take down power lines running through the property, which has allowed for 40 feet of riparian corridors to regrow. This involved removing invasive species, utilizing native seed stock, and allowing for natural progression.
- The traditional method of forest management on the site entails a process in which when a tree dies, the gap in the canopy is used to determine cultivation. A lot of understory in the forest is pawpaw, and the overstory is butternut and black walnut.
- A lot of sacrifice has gone into protecting the land in the Valley at the site location.
- The work on the site is far-reaching due to the water running through.
- More information can be found at https://www.ndponics.org/home.

Comments and Discussion:

- Amber asked: "I remember being inspired by our talk about your approach to riparian buffer restoration. Could you share a bit about that? Particularly around the zones for people versus the stream."
    - Luke answered that when you have to heavily manage something in the long-term, it is not sustainable. There are different concepts of work in a forest, and the forest has its own concept. The long-term approach is to naturally let it recover. The forest

finds an equilibrium, but when you try to manage it from the point of view of somebody who's not living in the space, then you're managing it from a point of view that doesn't come from that place. Increasing diversity and carrying capacity increases your quality of life. When planting a riparian buffer, consider what seed is already in the ground. Removing the barriers to natural progression will allow it to find a way. Trying to prop up and to artificially create a changing equilibrium cannot be done. There is resilience in change, and the things that are suppressing natural growth need to be removed. It involves the far-sightedness of thinking 200 years ahead.

Summit Closing

After the final panel presentation, Christine noted that a summary of the Summit will be available in the near future and encouraged participants to complete the evaluation form for the Buffer Summit. Amber and Christine thanked all participants and presenters for joining.

Additional information about the Consortium may be found at: www.jamesriverconsortium.org.

Meeting Participants

1. Delaney Beattie, Riparian Buffer Specialist
2. Kim Biasiolli, Albemarle County
3. Meyers Brandon
4. David Bryan, Ag Incentives Program Manager, DCR
5. Keith Burgess, Monacan SWCD
6. Sally Claggett, USFS Chesapeake Bay
7. Sarah Coffey, Chesapeake Bay Foundation
8. Kristen Dybala, Point Blue Conservation Science
9. Amber Ellis, James River Association
10. John Euson, Loudoun County SWM inspector
11. Repp Glaettli, Albemarle County
12. Genevieve Goss, Valley Conservation Council
13. Leslie Grayson
14. Jane Grigg
15. Charlie Grymes
16. Lissy Hamilton
17. Rebecca Hanmer
18. Kelly Hitchcock, Central Virginia Planning District Commission
19. Bryan Hofmann, Friends of the Rappahannock
20. Alston Horn, Chesapeake Bay Foundation
21. Jessica Huang, Green Infrastructure Center
22. Shereen Hughes, CBLP and Wetlands Watch
23. Gabriel Irigaray, Roanoke Valley-Alleghany Regional Commission
24. Mary Jacobs
25. Casey Johnson, James River Association
26. Christian Anderson
27. Cheryl Johnson
28. Bill Keeling, Department of Environmental Quality
29. Adrienne Kotula, Chesapeake Bay Commission
30. Matt Kowalski, Chesapeake Bay Foundation
31. Avery Lavoie, ORISE-EPA
32. Grace LeRose
33. Erin Ling, Virginia Tech Biological Systems Engineering and Virginia Cooperative Extension

34. Rex Linville, Piedmont Environmental Council
35. Chris M.
36. James Martin, Department of Environmental Quality
37. Jenny McGarvey, Alliance for the Chesapeake Bay
38. Joshua McLaughlin, VDOF-AFC
39. Emily Mills, Chesapeake Conservancy
40. Hunter Moore
41. Martha Morris, Virginia Outdoors Foundation
42. John Munsell, Virginia Tech
43. Patti Nylaner, Senior Area Forester, Virginia Department of Forestry
44. Molly O'Liddy, VA Department of Forestry
45. Melissa O'Neill, James River Association
46. Jennifer Palmore, VDEQ - PRO
47. Taylor Parker
48. Eli Podyma, Community Forester, VA Department of Forestry
49. Deya Ramsden, Program Coordinator for the James River Buffer Program, Department of Forestry
50. Kristen Saacke Blunk
51. Joey Shelton, James River Association
52. Kelly Snoddy, Peter Francisco SWCD
53. Jennifer Stanhope, USFWS VAFO
54. Sandra Stuart, Natural Bridge Soil and Water Conservation District
55. Carl Thein-Goin, DCR Conservation
56. Kristen Tillman, Commonwealth Regional Council
57. Kate Tuttle, Eastern Tree Arboricultural Consulting, Powhatan VA
58. Lucas Tyree, NDPonics
59. Virginia Vassalotti, EPA Region 3
60. Samuel Vest, Trout Unlimited
61. Suzanne Williams
62. Tad Williams, Virginia Tech
63. Laurel Williamson, Albemarle County
64. Dick Willis
65. David Wise, Stroud Center
66. Virginia Witmer, Virginia Coastal Zone Management Program
67. Michelle Wolfgang, US EPA Mid Atlantic Source Water Program
68. Phone participant
69. Phone participant
70. Sierra Gladfelter, Dialogue + Design Associates
71. Christine Gyovai, Dialogue + Design Associates
72. Emily Carlson, Dialogue + Design Associates
73. Lea Taylor, Dialogue + Design Associates