



# Upper & Middle James Riparian Consortium

## Meeting Summary

Tuesday, September 12, 2023

### Meeting Overview

The Upper & Middle James Riparian Consortium (Consortium) held its third general meeting of the year on Tuesday, September 12th, 2023. The meeting's objective was to explore riparian buffer establishment and research. The general meeting was held at the Virginia Tech's Catawba Sustainability Center, in Catawba, VA, followed by a field visit and tour of Roanoke Cement Company's riparian buffer along the Catawba Creek.



We are very grateful to our meeting presenters, Angela Larsen-Gray with the National Council for Air and Stream Improvement (NCASI), Deya Ramsden with the Virginia Department of Forestry (DOF), and Pabitra Aryal and John Munsell with Virginia Tech, for their thought-provoking and informative presentations on riparian buffer establishment and research. The Consortium extends a special thanks to Adam Taylor of Virginia Tech's Catawba Sustainability Center for welcoming us to the Center, and to Lindsey Layman of Roanoke Cement for leading the field visit.

### General Meeting - Riparian Buffer Establishment & Research



The September 12th General Meeting was hosted by Amber Ellis, James River Association's (JRA) Restoration Director and Convener of the Consortium. The meeting was facilitated by Christine Gyovai and Philippa Belsches with Dialogue + Design Associates (D+D). A list of [participants](#) is located at the end of the document.

Christine welcomed participants and Amber provided an [overview of the Consortium](#). The Consortium's mission is "to support a network of partners to raise awareness, build workforce capacity,

and increase implementation of riparian forested buffers across the Upper and Middle James watersheds through collaboration". Its vision is "growing partnerships to create healthy streamside ecosystems for clean water in the James River today and tomorrow". Learn more about the Consortium, and how to get involved, by visiting the website at [www.jamesriverconsortium.org](http://www.jamesriverconsortium.org).

## **Pollinator Seed Mixes in Forestry Projects - Angela Larsen-Gray, National Council for Air and Stream Improvement (NCASI)**

Angela Larsen-Gray, Senior Research Scientist, Forest Wildlife Ecologist, with [National Council for Air and Stream Improvement](#) (NCASI), discussed how the forestry sector is considering pollinator-associated seed mixes for erosion control and how it could be used in riparian area restoration.

NCASI's mission is to “help members cost-effectively meet their environmental and sustainability goals through basic and applied research, technical support, and education. It has technical studies programs in Chemical Management, Forestry, Sustainability & Climate, Water, and Air. The Forestry program focuses on Sustainability and Fiber Supply, Watersheds and Wetlands, and Biodiversity.

Dr. Larsen-Gray manages NCASI's Eastern Biodiversity Program. Her research includes looking at best management practices, wildlife, pollinators, and seed mixes in riparian areas. The erosion control, the width of buffers, openness of tree canopies, and the inclusion of year-round pollinator seed mixes in riparian buffer plantings are areas of particular interest.

Dr. Larsen-Gray's shared case studies indicating black-eyed susan, purple coneflower, and golden alexander are successful in West Virginia, while common milkweed, blue vervain, and narrow-leaf mountain mint work well in New England. Studies also show that bumble bees thrive amongst the wildflowers in younger forested buffers with more open canopies. As canopies of older, more established buffers are opened up, the bee population increases. Dr. Larsen-Gray also noted the importance of timing and site prep to ensure success in wildflower mixes included in buffer planting. Dr. Larsen-Gray's September 12th presentation to the Consortium is available at this [link](#).

## **Alternative Approaches to Buffer Establishment – Deya Ramsden, VA Dept. of Forestry**

Deya Ramsden from the Virginia Department of Forestry (DOF) shared a presentation on the alternative establishment approaches DOF has experimented with through the James River Buffer Program (JRBP).

DOF has historically worked with Soil and Water Conservation Districts to implement riparian buffer programs focused on planting hardwoods with protective covers. The JRBP provided the opportunity to ask, “can riparian buffers be established with fewer inputs of resources?”

Deya discussed her process for exploring this question of alternative approaches to buffer establishment using both pine and natural regeneration. In her [presentation](#), Deya shared data and information on the establishment process, costs, site and landowner characteristics, benefits, challenges, and case studies. Deya concluded her presentation by recommending “pine managed for natural regeneration of hardwoods” as her choice for alternative buffer establishment. Deya encourages that buffers “meet the land management needs and interests of a variety of landowners”. She noted the Virginia Department of Forestry will soon be launching a Statewide Flexible Buffer Program, and that they'll mostly be using the traditional hardwood and tree shelter approach

## Discussion Time + Breakouts

Following the two presentations, participants broke into small groups to discuss the afternoon's presentation and their experiences with new approaches to planting and maintaining buffers.

### What most resonated with you from the talks this afternoon?:

- Appreciation for new ideas and the discussion of different approaches to buffers.
- Buffers as beneficial to wildlife.
- Shared experiences of issues of cost.
- Desire for diversity in planting, beyond trees.
- Keeping areas under trees clear.
- Seed mix for site preparation and erosion control.
- How to incorporate pollinator mixes so they do not compete with grasses.
- Site preparation by whole field burndowns and then seeding to help control what comes back
- Making seed mixes all-purpose for the tree companies so it is easier for them to install.
- Importance of a variety of buffer widths.
- Pines could be a jump start for hardwood forests.
- Excitement of Deya and DOF's work.



### What new approach to planting or maintaining buffers have you tried or seen? How did it go? What surprised you?:

- Pioneering planting at a higher density and cutting back on costs and plastics.
- Use of blackberries, black eyed susan, and millet in buffer planting.
- By not mowing and just spot spraying around trees, more species enter the buffer.
- Use of tubelings, instead of bare root plants.
- Need to understand what causes varied pockets of growth at sites.
- Potential for further research into mixing trees, plants, and grass seed together.

## **Buffer Establishment Manual/Research – Pabitra Aryal and John Munsell, Virginia Tech**

The final discussion was with Pabitra Aryal, Ph.D and John Munsell, Ph.D of Virginia Tech who provided an update on their Consortium research project. Dr. Munsell and Dr. Aryal shared that their research has two focus areas. The first is compiling a literature review and technical synthesis. They are looking for input from partners on what technical resources are available on old, recent, and cutting edge research. Resources suggested by meeting participants included:



- [Alliance for the Chesapeake Bay - Forests for the Bay](#)
- [Landowner Guide for Buffer Success, Chesapeake Bay Foundation](#)
- [Maryland Department of Natural Resources - Riparian Forest Buffer Design and Maintenance](#)
- [Society for Ecological Restoration](#)
- [Stroud Water Resource Center](#)
- [Virginia Department of Conservation and Recreation - Riparian Buffers Modification and Mitigation Guidance Manual](#)

If you have resources you could recommend for this project, please share them with Amber Ellis at [AELLIS@thejamesriver.org](mailto:AELLIS@thejamesriver.org).

The second area of focus is field oriented. The team will review the database of riparian buffers that has already been compiled and analyze these buffers thematically (e.g. mortality, invasives, etc). They will pursue field work at these buffers in summer 2024.

### Field Visit - Roanoke Cement's Riparian Buffer

Following the General Meeting, attendees had the opportunity to participate in a guided tour of Roanoke Cement Company's award-winning 10-year-old buffer project along Catawba Creek. Roanoke Cement is the recipient of multiple industry, Environmental Protection Agency (EPA), and conservation awards. The plant created a large buffer, including more than 16,000 native shrubs and trees, to protect several miles of Catawba Creek, a James River tributary, flowing on the property. Lindsey Laymen, Environmental Manager, and Patrick McCrady, Corporate Mining Engineer, with Roanoke Cement led the tour and answered questions from participants. For more information, please see Roanoke Cement Company's [presentation](#) on their riparian buffer project.



### Next Steps

The [5th Annual 2023 Buffer Summit & Celebration](#) will take place on Wednesday, October 18th from 10:00 am to 4:00 pm at Pocahontas State Park. Please RSVP and Register [here](#). For more information on the Consortium visit: [www.jamesriverconsortium.org](http://www.jamesriverconsortium.org)

The Upper & Middle James Riparian Consortium presents:  
**5th Annual 2023 Buffer Summit & Celebration**

**October 18th | 10:00 am - 4:00 pm**  
 In-person at [Pocahontas State Park](#) | Powhatan Hall  
 10301 State Park Rd., Chesterfield, VA 23832 | RSVP below for more details

Join Consortium partners to inspire new connections and opportunities around buffer creation in the watershed and celebrate the benefits of buffers.



*Thank you to all who participated in the September 12th Consortium Meeting and Field Visit in Catawba!*

## **Meeting Participants**

1. Amber Ellis, James River Association
2. Anne Marie Roberts, James River Association
3. Angela Larsen-Gray, National Council for Air and Stream Improvement
4. Casey Johnson, James Rivers Association
5. Christian Anderson, Alliance for the Chesapeake Bay
6. Deya Ramsden, Department of Forestry
7. Emily Bender, Blue Ridge Land Conservancy
8. Gabriel Irigaray, Roanoke Valley-Alleghany Regional Commission
9. Jim Cook, Community Member
10. Joey Shelton, James River Association
11. Jordan Bennett, James River Association
12. John Munsell, Virginia Tech
13. Keith Burgess, Monacan Soil and Water Conservation District
14. Kelly Snoddy, Peter Francisco Soil and Water Conservation District
15. Laurel Williamson, County of Albemarle
16. Lindsay Spotts, Chesapeake Bay Foundation
17. Luke Longanecker, Thomas Jefferson Soil and Water Conservation District
18. Matt Kowalski, Chesapeake Bay Foundation
19. Pabitra Aryal, Virginia Tech
20. Sammy Vest, Trout Unlimited vb c
21. Sara Bottenfield, Virginia Department of Conservation and Recreation
22. Shereen Hughes, Chesapeake Bay Landscape Professional (CBLP) Program and Wetlands Watch
23. Tim Miller, Mountain Castles Soil and Water Conservation District
24. Christine Gyovai, Dialogue + Design Associates
25. Philippa Belsches, Dialogue + Design Associates

