Riparian Buffer Practitioners' Meeting

March 9-10, 2021
Schedule of sessions

RSVP here: https://forms.gle/xs38QyKwVZQCNM5N8

Zoom link and call-in information will be distributed to the attendees via email, **so please do RSVP!** We will use the same link and call-in information for all sessions.

Detailed presentation descriptions, where available, are linked later in the document

March 9 (Tue)

9:30 - 11:45am: Introductions, program/funding updates & looking ahead

- Meeting background, logistics, and structure - Annalise Carington (USFWS, The Intervale Center) and Alison Adams (Watershed Forestry Partnership, UVM Extension)
- Buffer restoration work planned for 2021, and key programs/funding updates - Holden Sparacino (VACD), Ben Gabos (NRCS), Katie Kain (USFWS Partners for Fish & Wildlife), Will Eldridge (VT Fish & Wildlife), Lyn Munno (WUV) with Michele Braun (Friends of the Winooski), and Allaire Diamond (Vermont Land Trust)
- Brief partner updates (5 min max; open, but **you must sign up for a slot here**)

1:00 - 2:30pm: DEC Updates: Act 76 Rollout, TMDL Tracking & Accounting, Buffer Funding - Staff from the Vermont DEC Water Investment Division

- Learn about Act 76 rollout and buffer tracking and accounting methods [see detailed description for more information]
- Join a brainstorming discussion about support for long-term buffer establishment and maintenance!

March 10 (Wed)

9:30 - 10:30am: Riparian buffers and managing for specific species

Presenters will describe the key design elements, management, and/or benefits of buffers for wildlife. Pick up some talking points for outreach efforts, and/or add a new element to your buffer installation and management!

- Wood Turtles and Riparian Buffers: The Bigger the Better - Kiley Briggs (The Orianne Society)
- Birds and buffers - Mark LaBarr (Audubon Vermont)
- Fish grow on trees: communicating the importance of forested riparian areas - Will Eldridge (VT Fish & Wildlife)

11:00am - 12:00pm: Novel restoration approaches

Presenters will describe new approaches and recent studies aimed at expanding our arsenal of restoration techniques to improve riparian forest establishment and health.

- Process-based fluvial geomorphic restoration and the riparian zone - Shayne Jaquith and Megan Gordon (TNC Freshwater Program)
- Site preparation and direct seeding: lessons learned and looking ahead in 2021 - Annalise Carington (USFWS, The Intervale Center)

1:00 - 2:30pm: Innovative approaches in outreach

Presenters will describe recent innovative approaches to landowner and/or volunteer outreach.

- Recruiting and training volunteers for stewardship - Kristen Balchunat (Winooski NRCD)
- Letter writing to landowners in the Memphremagog basin - Jess Colby (NorthWoods Stewardship Center)
- Photovisualization of riparian buffers for landowners, farmers, and outreach providers - Stephanie Hurley (UVM Department of Plant & Soil Science)

Detailed presentation descriptions (where available)

DEC Updates: Act 76 Rollout, TMDL Tracking & Accounting, Buffer Funding
Vermont Department of Environmental Conservation Water Investment Division Staff

Join DEC's Water Investment Division Staff to learn about the following topics:

- Clean Water Service Provider Act (Act 76 of 2019) rollout;
- DEC accounting methods for phosphorus reductions from buffer plantings;
- Verification of DEC funded practices with a focus on riparian buffers; and
- Overview of funding opportunities for riparian buffers and draft operation and maintence manual.

DEC wants your feedback! Join the brainstorming discussion on how to best ensure survivorship, how to prioritize funding after initial implementation, how to encourage stewardship into the future and more.

Wood Turtles and Riparian Buffers: The Bigger the Better
Kiley Briggs
The Orianne Society

Wood Turtles forage extensively in riparian habitat, but may travel over 1000 feet from rivers and venture into agricultural fields where they are often killed by heavy machinery. Expanding buffers beyond what is normally recommended to stabilize soils and improve water quality may be essential to conserving Wood Turtle populations, but how wide should the buffers be? And as a very secretive habitat specialist, how can you determine which sites are even appropriate for Wood Turtles?

Birds and buffers
Mark LaBarr
Audubon Vermont

Join Mark LaBarr, Conservation Program Manager for Audubon Vermont, as he discusses how creating and enhancing riparian habitat is beneficial for priority bird species, including woodcock and golden-winged warbler.

Process Based Fluvial Geomorphic Restoration and Riparian Ecosystems
Shayne Jaquith, Megan Gordon
TNC Freshwater Program

Our understanding of rivers and what it means to restore them is ever-expanding and evolving. Only ten years ago, the vision of a restored alluvial river included a single-thread channel

meandering in a predictable pattern with predictably spaced habitat features such as riffles and pools. Today, researchers and practitioners understand that prior to European settlement, the alluvial rivers of North America were much more complex multi-thread systems broken up by landslide debris, log jams and beaver dams, running through frequently flooded, swampy, forested landscapes. This improved understanding of our rivers and their surrounding riparian lands has prompted new ideas for restoring rivers that include the addition of log jams and beaver dams and channel filling accompanied by robust reforestation of the riparian area. The goal is to create structure that slows the river's flow so that its erosive tendencies are balanced by deposition of sediments to maintain complex, ever changing multi-thread rivers that flood surrounding lands frequently enough to support broad riparian ecosystems.

With an increased appreciation for the role of biology and the structure it creates in maintaining ecologically resilient rivers of complex form, restorationists have increased their focus on restoring naturally occurring biological components of riverscapes and allowing natural processes of scour and deposition do the rest. On smaller streams without surrounding constraints, the addition of large wood or building of beaver dam structures can be done by hand, with minimal design and at low costs. With this shift from heavily engineered designs implemented by heavy equipment, to low-cost endeavors, the restoration of rivers can be more readily incorporated into riparian revegetation projects to greatly increase ecological outcomes. In this presentation we'll delve more deeply into the connection between fluvial geomorphology and riparian ecosystems and how we might utilize low-tech and inexpensive process-based restoration approaches to maximize the outcomes of our riparian restoration projects.

Site preparation and direct seeding: lessons learned and looking ahead in 2021

Annalise Carington
US Fish & Wildlife Service, The Intervale Center

The agricultural history of many sites across Vermont poses unique challenges for restoration. Old hay fields and pastures often mature into a persistent, dense mix of perennial grasses and other herbaceous vegetation that can inhibit natural recruitment of native riparian species and create an environment inhospitable to transplanted trees and shrubs. More involved site preparation is a tool that can be used to disrupt the dominance of undesirable vegetation, reduce competition for planted trees and shrubs, and even create conditions amenable to the natural recruitment or direct seeding of native woody species. Trials are currently underway at several sites across Vermont to test the effectiveness of different site preparation methods and, at some sites, techniques for direct seeding.

This presentation will provide a brief overview of work happening around Vermont, initial results, and what is in store for 2021. Two sites will be explored in more depth (1) a 5-acre project at the LaPlatte Headwaters Town Forest in Hinesburg and (2) a 1/4 acre project at the Ethan Allen Homestead in Burlington. The goal is to provide information useful to partners operating at different scales, and to share information about both organic and chemical means of site preparation.

Recruiting and training volunteers for stewardship
Kristen Balchunat
Winooski NRCD

In this mini-session Kristen will share stories and resources about Winooski NRCD's experience recruiting and training community volunteers to assist with riparian buffer stewardship on public land. She will describe her experience working with individuals and community groups and will share links to training materials, a volunteer waiver example and tracking documents. This method of stewardship does not work for all sites, but it has proven to be a great way to foster continued community involvement in restoring riparian zones.

Photovisualization of riparian buffers for landowners, farmers, and outreach providers
Stephanie Hurley
UVM Department of Plant and Soil Science

This presentation will discuss opportunities for the use of photo-simulations (also known as landscape visualizations) in agricultural settings. This interactive session will present photo visualizations of riparian buffers and other best management practices and discuss previous results from a survey and focus group research with regard to their utility in outreach and planning efforts.