

# Notes from the Field

THE WATERSHED FORESTRY PARTNERSHIP & RIPARIAN BUFFER WORKING GROUP NEWSLETTER

FALL 2020

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## BUFFERS AND SPONGES: PLANTING TREES TO ABSORB RUNOFF BEFORE IT REACHES THE MAD RIVER

*Friends of the Mad River -*

Since 2018, Friends’ Storm Smart program has been working with private landowners to find opportunities to slow, spread out, and sink in stormwater runoff – to ‘spongify’ the landscape. A lawn in the uplands can lead to more runoff downhill and downstream. More runoff can mean more erosion, damage to private and town roads, flooding, dirty swim holes and costly repairs that we all pay for. There are ~405 miles of roads in the Mad River watershed, a third of them private, and many acres of mown lawns that increase runoff and cut into forestland. Installing rain gardens, replacing undersized culverts, and repairing and reshaping roads are just a few of the tools used to handle stormwater and build resilience into our community.

But perhaps the most effective tool is a tree!

Read more about Friends of the Mad River’s recent work on [page 2!](#)

# UVM EXTENSION AND LAKE CHAMPLAIN SEA GRANT LAUNCH NEW WATERSHED FORESTRY PARTNERSHIP

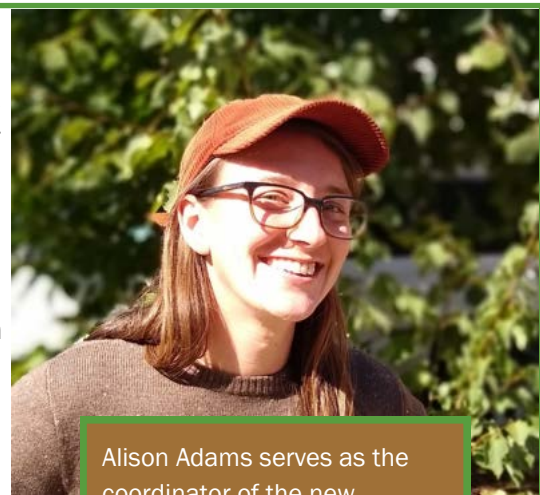
## UVM Extension & Lake Champlain Sea Grant

The Watershed Forestry Partnership is a new project housed within Lake Champlain Sea Grant and UVM Extension, with additional support from American Forests, Pur Projet, Bruce Lisman, and NRCS. The Partnership facilitates research, communication, collaboration, and implementation of forest restoration and management practices that protect water resources in the Lake Champlain basin and surrounding areas. We are a collaborative of practitioners, researchers, agency representatives, and others. Partnership members (including you!) help direct what issues and questions we tackle to best support riparian forest restoration work.

Alison Adams serves as the coordinator of the Watershed Forestry Partnership. In this role she facilitates information sharing within the community of practice, responds to community needs, and spearheads projects that will both address challenges that the riparian forest practitioner community faces and open avenues for new or even more effective work. Her work includes compiling and summarizing recent relevant academic literature, helping to coordinate efforts around funding opportunities, and organizing webinars, trainings, and/or meetings. Currently, Alison is developing a website for the Partnership that will house resources and literature

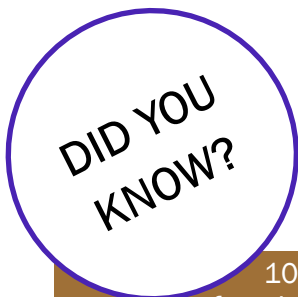
for practitioners; is collaborating with a range of partners on funding applications to expand riparian forest restoration work in Vermont; and is in the beginning stages of planning a Leadership Summit to discuss broad scale issues relating to watershed forestry work in the Lake Champlain Basin.

In its initial years, the Watershed Forestry Partnership is focusing on riparian forests and riparian forest restoration; the scope of the Partnership's work may expand in future years to include upland forests and other issues at the intersection of forestry and water quality. ♦



Alison Adams serves as the coordinator of the new Partnership

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10% of the sales from Lake Champlain Chocolate's Restorative Moments Collection go to the Intervale Conservation Nursery to help plant native grasses and trees along Champlain basin waterways!

### SEEKING VOLUNTEERS

Join the Burlington Parks, Recreation and Waterfront Department in planting 800 native trees in McKenzie Park in Burlington's Intervale on Wednesday, October 28th.

Tools and gloves will be provided, and there are two time slots available to facilitate social distancing.

[Sign up here!](#)

### RECORDED RIPARIAN BUFFER WEBINARS

Recorded webinars on topics ranging from benefits to aquatic species, to "selling" buffers without financial incentives, to urban riparian buffers, and more!

Check out the full array of topics and resources at on the [Pennsylvania Clean Water Academy's website!](#)

# BUFFERS AND SPONGES: PLANTING TREES TO ABSORB RUNOFF BEFORE IT REACHES THE MAD RIVER

## Friends of the Mad River

Since 2018, Friends' Storm Smart program has been working with private landowners to find opportunities to slow, spread out, and sink in stormwater runoff – to 'spongify' the landscape. A lawn in the uplands can lead to more runoff downhill and downstream. More runoff can mean more erosion, damage to private and town roads, flooding, dirty swim holes and costly repairs that we all pay for. There are ~405 miles of roads in the Mad River watershed, a third of them private, and many acres of mown lawns that increase runoff and cut into forestland. Installing rain gardens, replacing undersized culverts, and repairing and reshaping roads are just a few of the tools used to handle stormwater and build resilience into our community.

But perhaps the most effective tool is a tree!

### Austin Parcel

Since 2017, Friends, alongside the Waitsfield Conservation Commission, the Mad River Path Association, the Intervale Conservation Nursery (ICN), Partners for Fish & Wildlife, and dozens of volunteers, have been hard at work converting the Austin parcel floodplain from a jungle of invasive Knotweed and Honeysuckle to a healthy riparian buffer and functioning floodplain. During the 2018 and 2019 field seasons, the ICN invasives management crew took the lead in thinning the non-native woody plants while the MRPA regularly cut Knotweed, then volunteers helped plant more than 500 native trees and shrubs. The Waitsfield Conservation Commission has stepped up to direct stewardship efforts

moving forward and the parcel has been an important example of the power (and necessity!) of collaborative efforts aimed at stewarding our natural resources. Friends is in it for the long haul and will continue to work with community partners to foster the health of this young floodplain forest.

### Moretown Buffer

Every piece adds up. This spring, Friends worked with the Vermont Youth Conservation Corps (VYCC) and a trio of landowners to rise to the challenge of safe planting in the early days of the coronavirus pandemic. Two sites were planted, totaling 570 trees and shrubs. The site in Moretown sits at the juncture between a wetland drainage, the Mad River main stem, Route 100, and the front yard of the homeowners. Converting this area into buffer will hopefully showcase the multiple values of connected wetland habitat, lawn reduction, and the filtration of pollutants from road runoff.



“We all cherish elements of the Mad River Valley for unique reasons. The natural beauty, recreational opportunities, abundant local food production, and the community supported by this landscape are the reasons my family is still here. I value the Friends of the Mad River for their ongoing stewardship and service that helps these elements flourish.

The tree planting project they completed on our property was a long term goal of mine (cont.)

(cont. from pg. 2)

completed in an afternoon. I am grateful for their effort and support which not only allows our home to be a more responsible, sustainable fixture on the landscape but will also benefit future residents that discover their own values in this amazing community.” – Moretown Property Owner

### Upland Sponge

In contrast to the floodplain restoration at the Austin parcel and the buffer planting in Moretown, this spring’s other planting in Waitsfield took a few steps uphill into an old hay field.

Friends worked with a VYCC crew to plant 360 trees and shrubs on a parcel that sits between the Wu Ledges Town Forest and the High Bridge Brook stream corridor. The property owners themselves sweated out the effort to put another 110 trees in the ground – and their efforts did not stop there. The dry summer was particularly pronounced on this open slope and the pair of property owners whose land this planting crosses took turns on regular watering duty.



A significant drainage ditch, laid down when the area was all fields, cuts diagonally down the hill and towards High Bridge brook. While outside the traditional 50’ riparian buffer zone, the growing vegetation will still play a vital role in ‘spongifying’ the landscape, reducing the movement of pollutants, and building flood resilience. And, like riparian buffers, this planting will also provide habitat by connecting the riparian corridor with a pro-

tected forest block. The brook is an important tributary of the Mad, one that Friends’ Mad River Watch volunteer water quality monitoring program has found to have consistently elevated levels of phosphorous. By capturing water upland, where it lands, we can reduce the impacts downhill and downstream. ◆

*“I am grateful for their effort and support which not only allows our home to be a more responsible, sustainable fixture on the landscape but will also benefit future residents that discover their own values in this amazing community.”*

*Moretown Property Owner*

# NATURE'S WAY OF REFORESTING ABANDONED CORN FIELDS

Fritz Gerhardt, Conservation Scientist, Connecticut River Conservancy



A dense cover of silver maple seedlings grows in an abandoned corn field at the Johnson Farm WMA two years after last being cropped.

The agricultural history of many floodplain sites typically poses significant challenges for tree and shrub re-establishment and floodplain restoration. Abandoned hay fields and pastures often develop dense, persistent growths of perennial forbs and grasses, especially reed canary grass (*Phalaris arundinacea*), that inhibit the natural succession of forest species and create an environment inhospitable to natural regeneration and planted trees and shrubs. In contrast, the bare soil and lack of thatch or competing vegetation in abandoned annual croplands often allows for abundant natural regeneration of woody species.

Back in 2013 when Bill and Ursula Johnson conserved their farm in Canaan and Lemington, Vermont, there was considerable interest in the observation that silver maple (*Acer saccharinum*) and box elder (*Acer negundo*) were quickly recolonizing the former corn fields in what is now the Johnson Farm Wildlife Management Area (top). Woody plant regeneration was widespread and abundant in former corn fields, although the dominant species differed among fields (two former corn fields were dominated by box elder but a third was dominated by silver maple). In contrast, woody plant regeneration was almost non-existent to completely ab-

sent in former hay fields and pastures. Now, jump to 2020, nine years after the corn fields were last cropped in 2011. The former corn fields now resemble miniature forests (bottom). Although the density of saplings is much lower now than in 2013 (presumably due to natural thinning), the saplings have formed a closed-canopy forest that reaches as much as 5 meters (25 feet) in height, and much of the old field vegetation [e.g. goldenrods (*Solidago species*), etc.] has been replaced by leaf litter and native species characteristic of floodplain forests [e.g. joe-pye weed (*Eupatorium purpureum*) and jewelweed (*Impatiens biflora*)].

These observations over the past few years have led a team from the Vermont Fish & Wildlife Department, Connecticut River Conservancy, and U.S. Fish & Wildlife Service to experiment with alternative approaches to restoring floodplain forests, rather than solely relying on manual planting of trees and shrubs. ◆



A thicket of 20-25 foot tall box elders now covers an abandoned corn field at the Johnson Farm WMA on 7 August 2020, nine years after last being cropped.

# REDSTART FORESTRY CELEBRATES A DIVERSE AND BUSY SEASON

## Redstart Forestry

Redstart was honored and pleased to work with a number of organizations and partners on riparian planting projects in the spring of 2020, as well as a handful of upland planting projects. It was a fun and busy planting season, and because of the mix of riparian and upland sites, we experimented with a greater diversity of tree and shrub species than we have in previous years.



After informally reviewing the sites, we would like to share what we think are the ‘best’ and ‘worst’ performing species from our plantings this year, in terms of expected survival and growth. In the interest of keeping these lists relatively short, we left out species that fell in the middle of the spectrum. The two short lists below are based on initial appearance and quality of planting stock, as well as how the plants looked when we went back to check on the sites and/or control herbaceous vegetation. Please keep in mind that this is a ‘snapshot’ of what we experienced this year, and that we will know more as we and our partners review the results over time.



Best	Worst
silver maple red oak swamp white oak paper birch gray birch black cherry tamarack shrub willow dogwoods (red osier, silky) speckled alder chokecherry American hazelnut	sugar maple sycamore tulip poplar hackberry shagbark hickory black walnut

Redstart is also excited to have planted a component of American chestnut seedlings at our upland project sites this season. We have worked with students at a local

school to plant and monitor chestnut trees for the last several years, and we hope to continue working with the American Chestnut Foundation and other partners on conservation and restoration of the species.

We look forward to more planting, collaborating, and learning next year! We are committed to staying flexible, and helping out where we can. Redstart conducts plantings for federal and state agencies and programs, watershed organizations, and conservation districts. We also assist these partners with herbaceous control around planted trees and shrubs, invasive plant control, upland stream restoration, and aquatic and terrestrial wildlife habitat enhancement. Check out our website for a full description of our services and our contact information: <https://redstartconsulting.com/> ♦

## UPDATES FROM THE INTERVALE CONSERVATION NURSERY

### Intervale Conservation Nursery

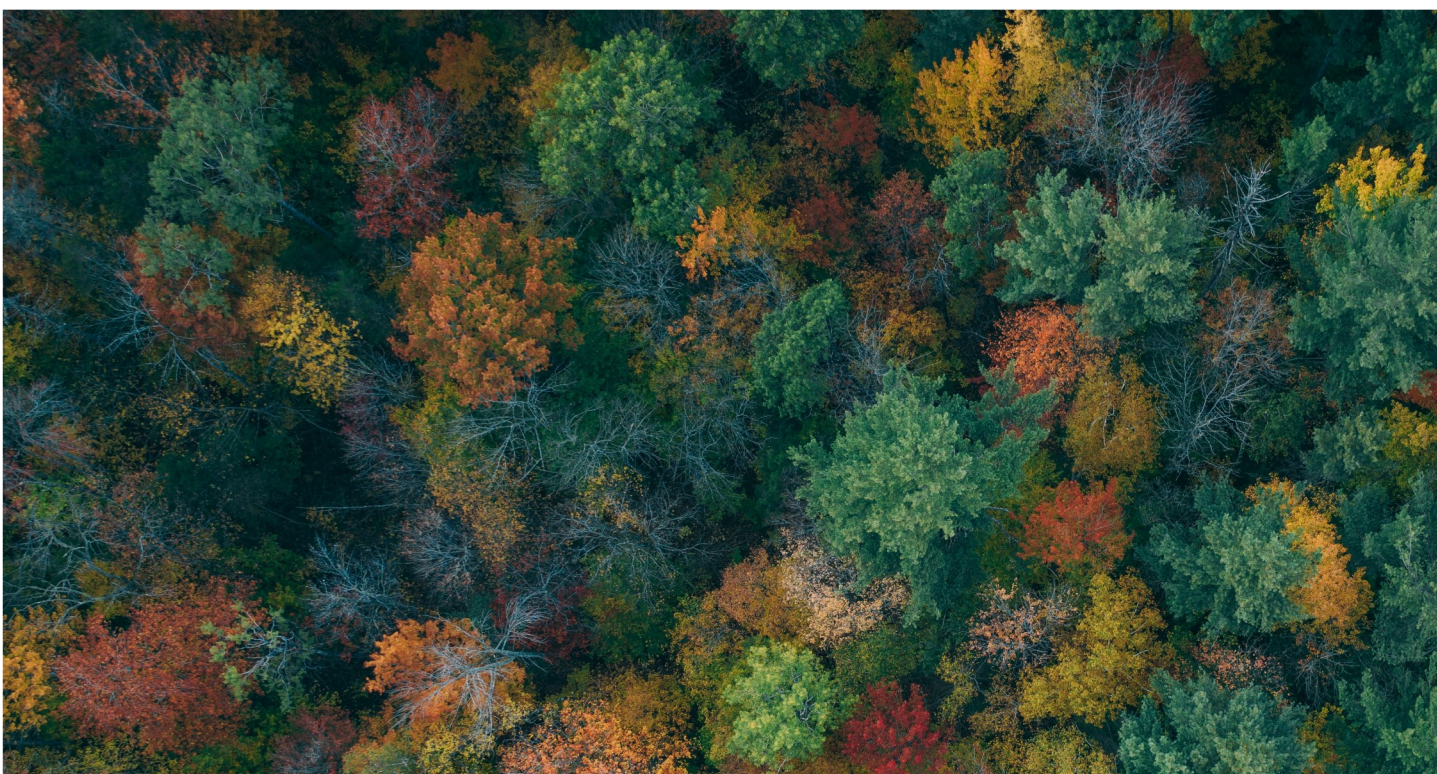
Thanks to our customers and our hard working ICN crew, the Spring planting season this year was successful. Thank you to all of our customers and partners for working with us to make sure trees still got in the ground. 25,000 trees left ICN's doors this spring, showing that not much can stop VT Tree planters! We expect another 10,000 trees to get planted this fall. Through this strange time, it's nice to know tree planting will always continue.

ICN did receive some help through the PPP to hire field staff to replace volunteer labor this past spring. Volunteer help is a big part of how ICN succeeds from season to season. Once the PPP field staff ended, we had a slow trickle of volunteers—understandably as there are many other ways for people to volunteer right now. Even with this gap in labor hours in our field, we planted over 35,000 trees and shrubs in our production field for future sales, including many birches and a variety of deer resistant shrubs, perhaps?

This season we planted many Chokeberry (*Aronia melanocarpa*) and Buttonbush (*Cephalanthus occidentalis*). Both are hearty shrubs that have shown success grow-

ing in a variety of conditions. They are both important pollinators as well. Aronia flowers in the spring and has large berries in the Fall, making it an important shrub for early season pollinators and migrating birds. Buttonbush flowers in the late summer and fall, making it an important shrub for late season pollinators getting ready for winter. They also hold onto their seed pods throughout the winter, which is important for birds that stick around for the cold season here in Vermont. Most importantly, we noticed that these two shrub species have had no signs of deer browse in our field! These two shrub species could possibly be diamonds in the rough for future planting plans.

If you are interested in planting this fall, please reach out to [ICNsales@intervale.org](mailto:ICNsales@intervale.org) and we can send you our most up to date availability list. Spring 2021 bareroot availability will be posted online in early December. Happy planting! ♦



# CONSERVATION DISTRICTS WORK WITH LANDOWNERS, STATE PROGRAMS TO PLANT STREAM BUFFERS

*Holden Sparacino, Vermont Association of Conservation Districts*

Trees for Streams is an ongoing program in partnership with Vermont's 14 Natural Resources Conservation Districts (NRCs) and the US Fish and Wildlife Service (USFWS) to reforest areas along streams and lakes. This season, Conservation Districts are working with landowners, public organizations and state programs to plant over 25 acres of stream buffers across Vermont. Increasing forested buffers along streams and restoring floodplain connectivity can improve stream health and habitats in many ways including improving water quality by decreasing runoff of sediments and nutrients over time, moderating flooding, and increasing forest and stream habitats.



Volunteers assisted Bennington County NRC staff to establish a permanent stream buffer at the Merck Forest and Farmland Center in Rupert.



Winooski NRC Conservation Specialist Kristen Balschunat teaches Essex Middle School volunteers how to plant stems for a tree planting in Burlington.

A key priority for Conservation Districts is improving the connectivity and quality of stream buffers by targeting areas currently lacking forested buffers that reduce runoff to streams and lakes. Many Conservation District use planning resources such as Tactical Basin Plans to accomplish water quality goals identified by local coalitions of towns, watershed groups, and state programs. and utilize TFS to collaborate with project partners to accomplish these goals. Trees for Streams is managed by the State Natural Resources Conservation Council (NRCC) and Vermont Association of Conservation Districts (VACD), with projects funded by the Vermont Department of Environmental Conservation (DEC), Lake Champlain Basin Program (LCBP), the US Fish and Wildlife Service (USFWS), and PUR Projet. For more information, visit [VACD.org/programs](http://VACD.org/programs). ◆



# VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION RELIES ON BEST MANAGEMENT PRACTICE VERIFICATION TO ASSESS BUFFER FUNCTION

*Vermont Department of Environmental Conservation*

How do we know if a riparian buffer planting is failing or flourishing? Do planted trees appear to be alive and healthy? Are they within the planned buffer area? Is the buffer area free from human impacts? The Department of Environmental Conservation’s Clean Water Initiative Program (CWIP) has developed and piloted a Best Management Practice (BMP) Verification protocol to ensure that clean water projects implemented with program funds are constructed, functioning, and properly maintained.

CWIP funds, tracks, and reports on priority projects to



Measuring the buffer width

restore Vermont’s waters each year. Numerous riparian buffer planting projects are funded across the state, as buffers play a critical role in protecting the quality of our surface waters. Verification of riparian buffer planting projects is important to ensure plantings are growing and being properly maintained over time.

By visually assessing the buffer plantings, CWIP can determine the overall functionality of the BMP and identify where improvements can be made through operation and maintenance.

To date, the BMP Verification team has visually assessed 18 riparian buffer planting sites, and the results

### These are a few visual indicators used to assess a site:

- Average buffer width (minimum of 35 feet)
- Buffer extent (appears as originally proposed in planting plan)
- Density of the buffer (minimum of 300 stems per acre)
- Health and overall vegetative cover
- Extent of human impacts or interference
- Presence of invasive species

show that approximately 94% are meeting functional standards. This is a great indication that plantings are being properly maintained. Where there have been concerns noted, acts of nature (animal herbivory, invasive species, ice) are largely to blame. Although the sample size is small, CWIP is seeing many healthy buffers and great response from the partners and landowners. CWIP hopes to maintain these partnerships and continue working together in the future.

For further information please visit the BMP Verification website (<https://dec.vermont.gov/water-investment/cwi/projects/bmp-verification>). ♦



## CREP RETURNS! AND A NEW PROGRAM: PASTURE SURFACE WATER FENCE PROGRAM

*Ben Gabos, Vermont Agency of Agriculture*

After a 2.5-year hiatus the Vermont CREP program is back enrolling new projects. Land that is in perennial crops (such as hay or pasture) or land in annual crops (such as corn, soybeans, or veggies) may be eligible for CREP. The Conservation Reserve Enhancement Program or CREP is a conservation program run jointly with the USDA Farm Service Agency (FSA), The Vermont Agency of Agriculture Food and Markets (VAAFAM), and the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program (PFW). The CREP program takes agricultural lands along riparian areas out of production to plant it to riparian forest buffers. To compensate for the loss of income from the enrolled acreage, the program offers eligible landowners up front incentive payments along with annual rental payments for the duration of the 15 year contract. FSA covers 90% of the cost share for the installation of forested riparian buffers and, for most projects, PFW can cover the remaining 10%.



Where livestock were grazing in the enrolled acreage, CREP and PFW together also cover 100% of all the necessary fencing, stream crossings, and watering infrastructure.

A few small changes were made to the program as a result of the 2018 farm bill. Vermont farmers are now subject to a slight reduction in the annual payments due to the required buffer language in the Required Agricultural Practices (RAP)'s and all new contracts need to be approved by the national office before participants can sign their contracts, both of which are administrative hurdles handled by program staff. In 2019 VAAFAM also hired an additional staff person, Phillip Wilson, to work on the program alongside Ben Gabos to increase the capabilities of the program. CREP is a natural partner of river corridor and other conservation easements and can be used to assist farmers with necessary grazing infrastructure or as a stand-alone buffer. ♦



A CREP planting in 2016 and 2018. This project included 100% of the implementation costs for tree and shrub planting, fence and watering system installation, and extensive invasive control. The landowner received an up-front incentive payment and gets an annual rental payment for the life of the contract.

Another VAAFAM program that can assist with livestock exclusion from riparian areas is the Pasture Surface Water Fence Program (PSWF). This VAAFAM cost share program works to exclude livestock and support with management and/or expansion of well-managed rotational grazing the implementation of grazing practices such as fencing, livestock pipeline, animal trails, watering facility and stream crossings. This program cost shares at 90% and can work with other funding sources such as EQIP

to improve the functionality of a grazing system. It can also be used solely to exclude livestock from surface waters even where well managed grazing won't occur in the adjacent pasture. However, in these cases, the fence setback from the surface water will likely be more than the normally required 10' setback from top of bank. Where CREP is not a good fit, this fencing program could be used to exclude livestock from buffers established through other funding sources. ♦

## PARTNERS FOR FISH AND WILDLIFE DEER EXCLOSURE ACTIVITIES

*Katie Kain, US Fish & Wildlife Service*

Many of us have noticed a heavy increase in deer browse in our riparian plantings. In many instances we're now trying to plant a greater percentage of less palatable tree and shrub species, but we still want to be able to include some component of tasty floodplain species such as silver maple, dogwoods, and basswood. After suffering almost 100% losses in a few key projects, we decided creative measures were required. Several folks across the state have now incorporated low deer fencing into their projects. This is based off of a study titled: Riparian and upland afforestation: improving success by excluding deer from small areas with low fencing (available on the Stroud Water Research Center's website).

The Partners for Fish and Wildlife program set up two low deer fences in a deer-prone project this spring in the hopes of being able to establish a vigorous "island" of trees and shrubs. Final results will be collected at the end of the season, but so far observations have been mixed. One fence has appeared to exclude deer effectively with no browse observed, while the other experienced some

sagging due to aggressive vine growth on the fence. Before the vines were removed, at least one deer did jump in and have a snack. As always, maintenance is key!



(above) Annalise Carington installing 4' deer fence in a 20'x20' plot.

(below) A planted cottonwood after being sprayed with Plantskydd.



One other method we're trying on a very small scale is a spray-on deer repellent called Plantskydd. This was recommended to us by a landscape professional who attended our last working group meeting. While it doesn't appear to have eliminated deer browse, our anecdotal observations so far have shown that it does seem to reduce it to some degree.

For any questions on fence specifications, contact Katie Kain at [katherine\\_kain@fws.gov](mailto:katherine_kain@fws.gov).



# SEEKING USER STORIES TO DEVELOP A WEB APP FOR VERMONT'S FUNCTIONING FLOODPLAINS INITIATIVE

Jody Stryker, Stone Environmental, for the Functioning Floodplains Initiative

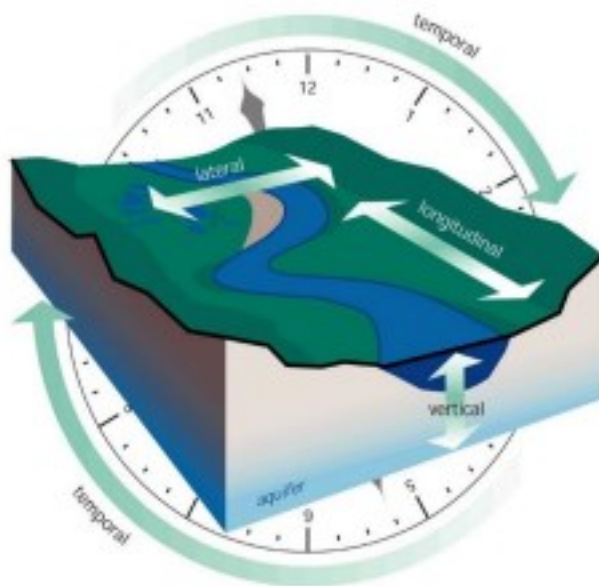
The Vermont ANR has begun a Functioning Floodplains Initiative to help meet its water quality, flood resiliency, and natural resource conservation mandates. The Initiative builds upon the many years and success of ANR-sponsored river corridor planning to support the restoration and protection of streams, riparian wetlands, and floodplains.

When EPA issued the Lake Champlain TMDL in 2016, it was the first TMDL nationwide to require load reductions from unstable stream sources by managing streams toward their natural rates of streambank erosion. To meet the TMDL, Vermont needed a crediting and tracking system for practices that would reduce loading, including those that address unstable streams. For unstable streams, the exercise started with a clear understanding that accepted practices for achieving sediment and nutrient storage along streams all share the objective of restoring and/or protecting stream and floodplain connectivity. As an advancement of the River Corridor Planning Program, the DEC began using selected stream geomorphic data, new high-resolution LiDAR elevation and land use/land cover data to create connectivity metrics that could support a map-based project crediting and tracking system.

Developing stream and floodplain connectivity assessments is also an opportunity to create communication tools that may invigorate new state and local partnerships for restoring rivers and floodplains into the headwaters of Lake Champlain. Assessment and mapping tools that explain the function and value of local waters become new outreach tools that may strengthen local advocacy. It's the local program, or neighbor reaching out to neighbor, that often brings about land use changes and agreements to restore and conserve natural resources.

The first Phase of the Functioning Floodplains Initiative (FFI) is mapping and assessing:

- Which rivers/streams and what percentage of river corridor floodplains are (dis)connected in a given watershed due to existing constraints or stressors?
- What is the opportunity to readily achieve connectivity? How should connectivity be scored, credited, and tracked at a reach and watershed scale to support a strategic restoration plan?
- What are the highest priority reconnection projects? (i.e. which floodplain restorations, dam removals, buffer plantings, corridor easements, etc. provide the greatest benefit?)



When Phase 1 was started, some very pertinent research efforts were getting underway. UVM faculty, post-docs, and graduate students are collecting field data, mapping floodplains and studying the sediment and nutrient transport and storage-related processes in streams, floodplains, and wetlands with funding support from UVM Sea Grant, EPSCoR, the Lake Champlain Basin Program, the VT Water Center, and The Nature Conservancy.

This research offers the capability to ascertain, not only where connectivity practices will be most cost effective, but where and how to maximize the ecosystem services provided by naturally functioning streams, wetlands, and floodplains.

EPA is now assisting ANR with funding to implement a second phase of the Functioning Floodplains Initiative that will support this layering of process-based research findings onto the Phase 1 connectivity assessment to fine-tune the degree of water quality and flood resilience that can be achieved with natural resource projects. Rules under development to stand up Clean Water Service Providers in the Basin (cont.)

(cont. from pg. 11)

(as per Act 76) are putting an even finer point on the need for crediting, basin allocations, and tracking tools for natural resource projects. DEC has infused additional state dollars into the Initiative to generate spatially explicit estimates of the societal values that may help garner municipal support for implementing natural resource projects.

A goal of the Functioning Floodplain Initiative is to create tools for generating and tracking the value of floodplain functions, at local and basin-wide scales, to enhance the societal interest in making natural resource investments. More Information about the FFI is at:

<https://dec.vermont.gov/rivers/ffi>.

One of these tools is a map-based web application that will provide users with the ability to view floodplain connectivity data, support decision-making on floodplain and wetland restoration prioritization, and track project implementation. The application will ultimately serve as the interface for the State and watershed community to support 1) resilience planning for flooding and erosion; 2) water quality improvements achieved through projects that promote sediment storage and nutrient attenuation; and 3) habitat enhancement accomplished by restored connectivity and physical complexity.

### **We need you! A call for User Stories**

One of the first steps in designing this application, is to gather and refine information about user requirements. If you envision accessing the FFI web application, either for viewing data (e.g. to understand the connectivity status of streams and floodplains in your watershed), for planning purposes (e.g. to prioritize restoration projects based on phosphorus reduction potential and pro-

ject feasibility), or for contributing information related to new restoration projects, please consider submitting your own User Stories.

A User Story should explain a desired feature of the FFI web application, told from your perspective. These are helpful in capturing specific functionalities (e.g. searching for a project type or filtering projects by feasibility). We are also interested in what you would like to see when using the web application (e.g. a view of the watershed that shows stream segments using a color ramp that indicates connectivity score).

Please submit user stories in the following format:

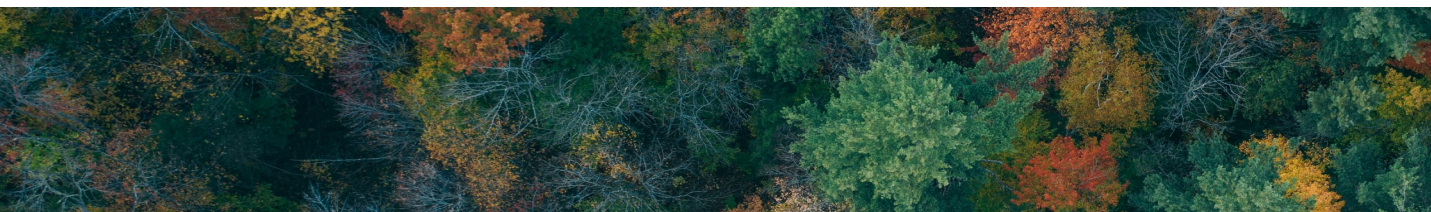
**“As a ...”** (e.g. “As a DEC basin planner”)

**“I want to ...”** (e.g. “I want to develop a set of priority stream, wetland, and floodplain projects that have high feasibility and cumulatively represent an estimated phosphorus load reduction target”)

**“So that ...”** (e.g. “So that the DEC is able to allocate that load reduction in a contract with a CWSP in accordance with Act 76”)

Write as many user stories as you want and be as specific as possible. Identify what kinds of outputs you would like, criteria by which to locate data, what scale you are most interested in. Or feel free to draw us a picture or share what you would like to see as a user of the web application. Please submit user stories to Jody at [jstryker@stone-env.com](mailto:jstryker@stone-env.com).

**Stories are due October 9th!**



If you would like to submit a story for a future issue, or subscribe to or unsubscribe from the Watershed Forestry Partnership mailing list, contact Alison Adams at [alison.adams@uvm.edu](mailto:alison.adams@uvm.edu).

**Thanks to Watershed Forestry Partnership supporters:** American Forests, Bruce Lisman, Lake Champlain Sea Grant, Pur Projet, UVM Extension, and Vermont Natural Resources Conservation Service!