



Lamoille County Conservation District

Conserving Our Natural Resources since 1945

DISTRICT NEWS

SPRING 2021 ~ TREE AND TROUT EDITION

Stream Connectivity and Habitat Improvement in the Lamoille River Basin, Lamoille County, Vermont



The Lamoille County Conservation District (LCCD) is planning the continuation of our partnership with the United States Fish and Wildlife Service (USFWS) built on shared values and goals to restore, enhance and preserve riverine habitats. Through the removal of obsolete dams, the replacement of inadequate culverts and implementation of riparian buffers, this work will improve flood resiliency, restore natural stream function and restore fish passage within the basin.

Over the next four years LCCD plans to work with other partnering agencies to restore 25 miles of brook trout habitat by removing four barriers to fish passage. This includes removal of dams and culverts. Also, this partnership plans to restore 50 acres of upland habitat and 20 acres of wetland habitat in the Lamoille River Watershed. These

are lofty goals but completely attainable. Stay tuned to our website www.lcnrcd.com and Facebook page to follow the progress of this work.



New Conservation Outreach Coordinator Daniel Lee

We would like to welcome our new team member in conservation Daniel Lee! He will be crucial in our partnering with local farmers and private landowners who have natural resource concerns. His role will be to provide landowners with ways of achieving best practices for soil health and clean water goals. If needed he can provide direction and technical services with Nutrient Management Plans and can steer the landowner towards funding opportunities provided by the Natural Resources Conservation Service (NRCS), the Vt Agency of Natural Resources (VT ANR), and the Lake Champlain Basin Program just to name a few. Please reach out to us if you require his services! In his own words...

"My name is Dan Lee and I am the Conservation Coordinator for LCCD. I've spent the past ten years building hiking trails, restoring historic timber framed barns, dismantling buildings for re-use, building a strawbale house and implementing watershed restoration projects. I graduated from UVM with a major in Natural Resource Planning. My coursework was based in ecology and my interests led me to a double minor in Community and International Development. Much of my course work and many of my service learning projects focused on the intersection of the built and natural worlds. I look forward to learning from and working with residents across Lamoille County to implement important projects. "



Lamoille County Conservation District Mission:

To maintain and improve our natural resources.

To aid and educate our fellow citizens to appreciate and adjust to the changes taking place in our natural resource system.

To be a local voice for conservation, preservation and stewardship of all natural resources and work in conjunction with other agencies, private and public.

LAMOILLE COUNTY CONSERVATION DISTRICT

2020 PROJECT UPDATES

Brewster River Tributary Gully Erosion Project Fall 2020

LCCD recently restored a gully erosion feature in an unnamed tributary on the Brewster River Corridor. It essentially acted as a flood chute during storm events, loading the Brewster with sediment and phosphorus.

A section of the tributary was graded back, erosion matting and trees were planted on the buffer area, conservation seed mix was planted in disturbed areas, and four check dams were included to absorb the flow of water and trap sediment running through the tributary.

Thanks to a DEC NRCC Block Grant this was accomplished in a matter of days. Thanks also to the Vermont Land Trust and Brewster Uplands Conservation Trust (BUCT), who owns the land, for allowing us to do this work. Thanks to Bob Edwards for the excavation work, thanks to the Intervale Nursery for the tree planting and Fitzgerald Environmental for the design and additional oversight in the implementation.

It is important to note that this project, as well as all other stormwater, watershed or natural resource conservation projects are also focused on reducing the overall Total Maximum Daily Loads of phosphorus in the Lake Champlain Basin as spelled out in the State's Clean Water Initiative and the new goals of the Clean Water Act 76.



Lake Elmore Watershed Action Plan

Through an Ecosystem Restoration Program grant provided by the Vermont Department of Environmental Conservation in 2019, LCCD conducted a full watershed assessment of the Lake Elmore watershed. LCCD contracted Fitzgerald Environmental Associates LCC and partnered with Lamoille County Planning Commission, VT Department of Environmental Conservation, VT Department of Fish and Wildlife, the VT Department of Parks and Recreation, Town of Elmore, Lake Elmore Association, Lake Elmore shoreline landowners and Vermont Youth Conservation Corp (VYCC) to complete this study.

Lake Elmore is a pristine lake but has been showing nutrient (i.e. phosphorus) and sediment loading stresses due to development patterns surrounding the lake. The study assessed what locations these stressors were most impactful by conducting road erosion inventories, stream walks and shoreline assessments. LCCD worked closely with the town and lake association to identify known issues as well. 20 possible projects were identified and five of these that ranked highest were brought to 30% design.

As part of this assessment LCCD and The VT Agency of Natural Resources also made inroads introducing the Lake Wise program to local shoreline owners. Lake Wise is a program that helps these land owners implement shoreline Best Management Practices (BMPs) for stormwater management, storm resiliency and improved wildlife habitat. Shoreline owners who score particularly well with their land stewardship will receive a certification and a sign that they can proudly display on their shoreline for their neighbors to see. While the assessment was in progress eight BMPs were installed around the lake with the help of the VYCC and volunteers.



LAMOILLE COUNTY NATURE CENTER

2021 Summer Camps

At the beautiful Lamoille County Nature Center



Forest Fairy Camp

Ages 4-5 ~ June 28-July 2 ~ 8:00-12:00

Sensory Superpowers

Ages 5-8 ~ July 5-9 ~ 9:00-3:00

Wild in the Wilderness

Ages 8-12 ~ July 12-16 ~ 9:00-3:00

GAMES~CAMPFIRES~POND~EXPLORATION~HIKES~CRAFTS

Registration forms and information on COVID-19 precautions available at www.lcnrcd.com

EDUCATION UPDATES



Watershed Education

LCCD offers watershed education throughout the Lamoille River basin. We look forward to more watershed lessons this spring thanks to funding from the Green Mountain Fund of the Vermont Community Foundation.

Lake Champlain Basin Program Funds Lamoille Watershed Investigation Series

LCCD will offer a six-part lesson series focused on the Lamoille watershed and its place in the Lake Champlain Basin to four 3rd-6th grade classrooms in Fall 2021. Activities will include mapping, modeling, water quality testing and field surveys. We are looking for interested, adventurous teachers at Wolcott, Johnson, Cambridge and Waterville. This project is funded by an Education and Outreach Grant from the Lake Champlain Basin Program.

Nature Center Field Trips

Every May and June LCNC hosts end-of-the-year field trips for local schoolchildren. Field trips are planned in coordination with the teacher and can be adapted for age and group size. Interested in treating your class to a Nature Center field trip? Contact Stacey for more information.

Junior Naturalist Programs

We plan to relaunch our nature programs for the under 12 crowd at schools and libraries in Fall 2021. I have missed our visits and all of your smiling faces and look forward to exploring Vermont's natural wonders with you again!

THANK YOU TO OUR MEMBERS WHO HELPED LCCD TO WORK WITH 618 LAMOILLE RESIDENTS!!!

Gratitude and appreciation to LCCD's Generous Members:

Conservationist: Debbie & David Schoop; Judy Geer and Dick Dreissigacker

Sponsor: Elizabeth & Nicholas Deane; Susan & Bob Titterton

Supporters: Kim Jensen; Butternut Mountain Farm; Deborah Pomeroy; Jill Lindenmeyr; Susan Ludington in memory of Chris Ludington

PROGRAM PARTICIPATION	2020
Education Programs	428
Volunteers	25
Trainings	62
Sales Customers	46
Farms	40
Conservation Programs	17
TOTAL PARTICIPANTS	618

**Thank You to our Current Members! We appreciate your help!!!
If you're not listed on this page and are receiving this newsletter,
please renew your membership.**

Please let us know if your name is missing from the list.

Donald Blake Jr. Inc; Elizabeth Bourdon; Thomas & Tatjana Cady; Anne & Mike Cassidy; Al Ceppetelli; Nick Crandall; Steven Cummings; Charlie Davis; Elizabeth & Nicholas Deane; Stephen & Mary Donohue; Steven & Anne Ford; Judy Geer and Dick Dreissigacker; Penelope Harris; Richard Heh; Dave & Trina Hosmer; Kim Jensen; Dick and Marcia Johannesen; Dorcas Jones; Kathleen & Andrew Knittle; Liz & Tom Lackey; Kenneth Lamb; Walter Levering and Carolyn Ruschp; Steve & Carol Lichenstein; Jill Lindenmeyr; Trudy Louson; Susan Ludington; Marc Mallot; Howard Manosh; Stacey Manosh, Donald & Susan Miller; Kim Nichols; Sally & Peter Nolan; Eric Nuse; Kyle Nuse; Peter Opstrup; Alan Peister; Douglas & Mary Philipsen; Sharon & Scott Perry; Deboarah Pomeroy; William & Donna Putnam; Jeff & Penni Rochette; Sheila Rysz; William & Stacey Schaaf; David & Debbie Schoop; CJ & Gale Seitz; Janet and MJ Shaw; Sandy & Don Simonds; Fran Sladyk; Michael Snyder and Kristen Sharpless; Al Sparks; Kermit & Hazel Spaulding; Ron and Judy Stancliff; Diane & Carl Szlachetka; Ann Thursby; Susan and Bob Titterton; Mary & Marty Waterman; Charles and Pam Witherell; Amy & Chris Whitlock; Butternut Mountain Farm

Lamoille County NRCD Supervisors

Charles Davis, Chair
Fran Sladyk, Vice Chair
Linda Martin
Dirk Schmidt
Sarah Ford, Treasurer
Joni Lanphear, Associate
Christine Kaiser, Associate
Silene DeCiuces, Associate

Lamoille County NRCD Staff

Peter Danforth, Director
lccddirector@gmail.com
(802) 888-9218 ext. 3004

Stacey Waterman, Education Program Coordinator
stacey.waterman@vt.nacdnet.net
(802) 888-9218 ext.3007

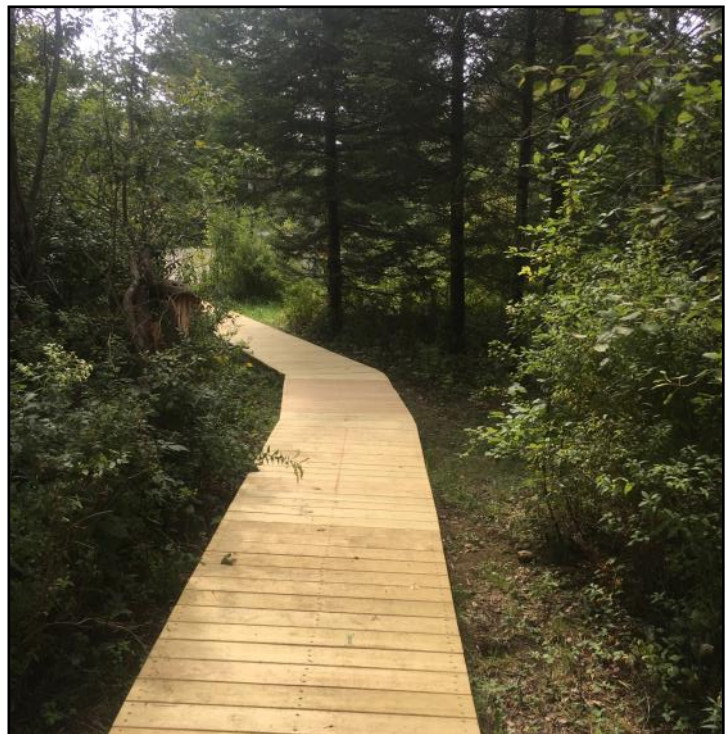
Daniel Lee, Conservation Outreach Coordinator
lccdworkinglands@gmail.com

USDA NRCS

Nancy Allen, Soil Conservationist ext. 3005

USDA FSA

Heather Mateja, CED ext. 3002



LAMOILLE COUNTY CONSERVATION DISTRICT

Town and Village of Johnson Stormwater Master Plan (SWMP)

Through an Ecosystem Restoration Program grant provided by the Vermont Department of Environmental Conservation in 2018, the Lamoille County Conservation District (LCCD) has almost completed a Stormwater Master Plan for the town and village of Johnson, VT. This study also includes the Northern Vermont University Johnson campus. This project's final draft should be available by May 2021.

LCCD contracted Watershed Consulting Associates LCC and partnered with the towns of Morrystown and Hyde Park, the Lamoille County Planning Commission, and the VT Agency of Natural Resources, to complete this study. The study assessed approximately 27,000 acres to determine what locations were stressed the most by sediment, pollutant and nutrient loads (specifically Phosphorus), were potential flood hazards and had the largest impact on the Lamoille River Water Basin and its tributaries. 20 possible project sites were identified and three of these that ranked highest were brought to 30% design.

The study area spans 29,245 acres, approximately 82% of which is classified as forested while 1.6% of the Town is classified as urban (including urban open space). Of that area, there are 441 acres (1.5%) of impervious cover. In order to determine feasibility of projects they were ranked with a matrix that included these variables: Impervious area managed, of operation and maintenance, volume managed, volume infiltrated, permitting restrictions, land availability, flood mitigation, TP (Total Phosphorus) removed, other project benefits including educational outreach potential and community stakeholder support and final cost.

LCCD intends to implement best management strategies to mitigate sediment and nutrient loading at these six sites over the next year combined with continued monitoring of water quality. It is important to note that this project as well as all other stormwater, watershed or natural resource conservation projects are also focused on reducing the overall Total Maximum Daily Loads of phosphorus in the Lake Champlain Basin as spelled out in the State's Clean Water Initiative and the new goals of the Clean Water Act 76.

For more information, please contact the LCCD director at lccddirector@gmail.com or 802-521-3004.

Potential spots for potential future stormwater work includes NVU College Apartments and Railroad St drainage by the Johnson Public Library



LAMOILLE COUNTY CONSERVATION DISTRICT

2021 CONSERVATION TREE SALE ORDER FORM

Date: _____ Name: _____

Phone: _____ Address: _____ e-mail: _____

Bare Root Trees & Flowering Shrub Species

Pick Up at LCCD Office May 2nd or at scheduled time coordinated with Peter

American Elm (<i>Ulmas Americana</i>)	5-6'	\$12		
Black Walnut (<i>Juglans nigra</i>)	2-3'	\$10		
Bur Oak (<i>Quercus macrocarpa</i>)	2-3'	\$10		
Button Bush (<i>Cephalanthus occidentalis</i>)	2-3'	\$10		
Red Maple (<i>Acer rubrum</i>) (Field Grown Liners)	3'	\$12		
Red Oak (<i>Quercus rubra</i>)	3-4'	\$10		
American Basswood (<i>Tilia Americana</i>)	2-3'	\$10		
Black cherry (<i>Prunus serotina</i>)	2-3'	\$10		
Elderberry (<i>Sambucus canadensis</i>)	2-3'	\$10		
Quaking Aspen (<i>Populus tremuloides</i>)	2-3'	\$10		
Shrub willow (<i>Salix spp.</i>)	4-5'	\$10		
Silky dogwood (<i>Cornus amomum</i>)	2-3'	\$10		
Nannyberry (<i>Viburnum lentago</i>)	2-3'	\$10		
Tamarack (<i>Larix laricina</i>)	1-2'	\$8		
Winterberry (<i>Ilex verticillate</i>)	2-3'	\$10		
River Birch (<i>Betula nigra</i>)	2-3'	\$10		
Highbush Cranberry (<i>Viburnum Trilobum</i>)	6-12"	\$8		
Cottonwood (<i>Populus deltoides</i>)	3-4'	\$10		
Silver maple (<i>Acer saccharinum</i>)	3-4'	\$12		
Box Elders (<i>Acer negundo</i>)	3-4'	\$12		
Choke Cherries (<i>Prunus virginiana</i>)	2-3'	\$10		
Speckled alder (<i>Alnus Incana</i>)	2-3'	\$10		

Please attach a list of other varieties you would like to see! We will attempt to accommodate. Price will remain \$10 dependent on species but size may vary.

Total from attached sheet:

A minimum of \$25 is required to cover administrative costs

PLANT SUBTOTAL

Order deadline is April 23rd.

Member Benefits

First choice orders will be taken from members *only*, until April 24th
Members receive 5% off entire order

Discount:

Make me a Member/Renew Membership

\$35 Individual \$60 Family \$125 Supporter \$250 Sponsor \$500 Steward \$1000 Conservationist

Member:

Pre-payment is required. Please make checks out to LCCD

Send to: LCCD 109 Professional Drive, Suite 2 Morrisville, Vermont 05661

TOTAL:

No news is good news! You will not receive a confirmation for your order or a reminder.

We will contact you only if we cannot process your order.

Retain a copy of your order form and **PLEASE mark your calendars.**

Phone calls are not accepted on the day of the sale.

PLEASE be sure to make alternative arrangements if needed with LCCD before Saturday.
All orders must be picked up on Saturday, May 1st between 10:00 am and 12:00 pm at office parking lot.



TROUT SALES 2021

Common Questions and Answers:

Will trout live in my pond? Which trout species is better for my pond?

Trout survive best in cold oxygenated water maintaining a water temperature of 65°. As long as there are springs or a source of water flowing into the pond, small ponds to large ponds will accommodate both species of trout. If waters are not consistently flowing into the pond, then the pond should be at least 8' in depth and shaded to maintain temperatures in summer and winter. Ponds that have well-oxygenated flowing waters support Brook trout best. If water warms in the summer, Rainbow trout have a higher success rate.

How many trout and how often should I stock in my pond? Should I feed the trout?

The number and size of fish depend on the water flow, chemistry, and available food source. The general rule of thumb is 100 8" trout per 1/4 acre of open surface area. If the waters are spring fed, and the temperatures are consistent then stocking once every few years may work. If there are predators such as heron, mink, or fishers present than you may want to stock annually. Large trout will feed on smaller trout that are half their size. Ponds that are older than three years should have enough aquatic insect larvae, worms, tadpoles, etc. for trout to eat. Newer ponds that lack substrate such as a vegetative buffer around the pond, and submerged and benthic plants may not support these natural foods. Feeding fish may cause an increase in nutrients to the pond which can then lead to algae.

What can I do about algae in my pond?

LCCD provides site visits for pond owners to assess pond conditions and make recommendations. Site visits are scheduled in June.

Spring Trout Sale Details

Please fill out the Order Form below and send it and payment to LCCD by April 30th, 2021. For more information about stocking trout, please visit our website www.lcnrcd.com. Sorry, we cannot take payments over the phone.

Make checks out to LCCD, 109 Professional Drive, Suite 2, Morrisville, VT 05661

Orders of 6-8" trout must be picked up on **May 5th** between **12:00 and 1:00 pm at Oxbow Park** (at the end of Portland Street past Morrisville Lumber). After 1:00 pm, we will forfeit unclaimed orders and will not keep the trout. Trout are provided in an air sealed large plastic bag. It's best to stock trout immediately in your pond after pick up to insure their survival.

Orders of 10-12" trout will be delivered by the trout farm **any time** on the afternoons of **May 5th or May 6th**. Price per lot includes delivery. We cannot schedule deliveries. A flag at the delivery site and/or an order confirmation will be left onsite. Please e-mail or include directions to the best location to leave confirmation and specific directions from the nearest route to your pond with your order form and payment. Addresses will be mapped via Google and GPS with other deliveries. Split deliveries within one-mile include a \$30 additional charge.

Order confirmation calls or reminders are not provided. Please retain this information sheet for your records.

Please be sure to note the trout day on your calendars for deliveries and/or pick up orders.

2020 Spring Trout Order Form

Please check your member status on page 4 to receive member rates

PICK UP

6-8" Rainbow trout (Lots of 25) # lots _____ x \$70 (\$55 for members) = _____
6-8" Brook trout (Lots of 25) # lots _____ x \$70 (\$55 for members) = _____

DELIVERY

10-12" Rainbow trout (Lots of 50) # lots _____ x \$220 (\$205 for members) = _____
10-12" Brook trout (Lots of 50) # lots _____ x \$220 (\$205 for members) = _____

Make me a Member/Renew Membership

\$35 Individual \$60 Family \$125 Supporter \$250 Sponsor \$500 Steward \$1000 Conservationist = _____

TOTAL = _____

Name _____

E-Mail _____

Mailing Address _____

Phone _____

Physical Address (for deliveries) _____

Please include special directions from a main route on a separate sheet if necessary. **THANKS FOR YOUR ORDER!!!**

Lamoille County Conservation District

109 Professional Drive, Suite 2
Morrisville, Vermont 05661
802-888-9218
www.lcnrcd.com

NON-PROFIT ORG.
U.S. PAID
MORRISVILLE, VT
PERMIT NO. 38

Return Service Requested



Spring 2021 Newsletter



Winters Chiropractic
65 Portland St., Morrisville, VT 05661



51 Brigham Street, Morrisville
802-888-8823



FOOTE BROOK
ORGANIC FARM

641 VT RT 15 West Johnson, VT 05656
(802) 635-1775

Providing fresh fruit, vegetables, and flowers

We're proud to support
Lamoille County NRC
and other contributors to
healthy communities.

Union Bank

Member FDIC



105 INDUSTRIAL PARK DRIVE, MORRISVILLE, VERMONT, USA 05661
EMAIL: ROWING@CONCEPT2.COM WEB: CONCEPT2.COM SALES: 800.245.5676 INTL: 802.888.6333 FAX: 802.888.4791

LCCD SPRING 2021
NEWSLETTER