Report of Activities
2020

Lake Champlain
Basin Program

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OUR WORK

The Lake Champlain Basin Program (LCBP) is a Congressionally-designated initiative to restore and protect Lake Champlain and its surrounding watershed. We work with partners in New York, Vermont, and Québec to coordinate and fund efforts to address challenges in the areas of phosphorus pollution, toxic substances, biodiversity, aquatic invasive species, and climate change. The LCBP also administers the Champlain Valley National Heritage Partnership, which builds appreciation and improves stewardship of the region's rich cultural resources by interpreting and promoting its history.

The LCBP management plan *Opportunities for Action* identifies four goals that address the key resource issues facing Lake Champlain and its watershed. These four goals—clean water, healthy ecosystems, thriving communities, and an informed and involved public—serve as the framework for much of the LCBP's work.

This full listing of projects in FY2020 includes local implementation grants, larger technical grants, and highlights of program staff work. For a summary of these projects, please visit lcbp.org/annual-report.

The LCBP's 2020 Fiscal Year started off with an amazing Champlain Valley National Heritage Partnership Summit in Venise-en-Québec. The gathering was energized with discussions about the centennial of 19th amendment to the U.S. Constitution, which gave women the right to vote. Grand plans were in place—parades, re-enactments, and other commemorations of the events leading up to its passage in 1921.

At the same time, the LCBP had also rolled out the strongest grant program in its nearly 30-year history. The Lake Champlain Steering Committee awarded almost $3 million to 106 grant applicants, adding to 90 active projects from previous cycles. By winter, dozens of organizations were gearing up for the start of a new field season.

Then, the LCBP, like the rest of the world, confronted a new reality on March 13, 2020. The staff transitioned remarkably to working remotely and the tricky dual home/work life situation. They have risen to whatever challenges have been thrown at them—at nearly any time of day—over the course of the year.

By late March, local watershed groups faced the potential of cancelled funding from grantors and donors, and setbacks to field work that had to be cancelled or drastically altered. LCBP was able to redirect existing funding to provide "emergency" support grants to help organizations suffering financial hardships as a result of the pandemic.

Many of the LCBP's core programs moved forward normally, and others were re-oriented to ensure adherence to COVID-safety protocols. The boat launch steward program transitioned quickly to remote training and had a successful summer season that saw a significant increase in visitors on launches. Amid the ongoing recalibration, the LCBP started work on the next State of the Lake report, which will be released this summer.

The COVID pandemic and other events have brought grief to our country and challenges to the LCBP and our partners. Through it, we have found new ways to do the important work of improving the health of the Lake Champlain Basin. And we have discovered new opportunities to connect with and include diverse audiences and stakeholders. As we look forward to the end of the pandemic, these new approaches and the continued push for inclusion will be the legacy of FY2020.

Eric Howe, Director, LCBP and CVNHP

Jim Brangan, Associate Director, CVNHP

Phil Brett, Information Officer

Mae Kate Campbell, Technical Associate

Sarah Coleman, Vermont Lake Champlain Coordinator (VT ANR)

Katie Darr, Citizen's Advisory Committee Coordinator

Sue Hagar, Education & Outreach Steward

Colleen Hickey, Education & Outreach Coordinator

Laura Hollowell, LCBP Resource Room Coordinator

Kathy Jarvis, Office Manager

Lauren Jenness, Environmental Analyst

Stephanie Larkin, LCBP Resource Room Specialist

Myra Lawyer, NYS Agronomist (NYS DEC)

Elizabeth Lee, Communications & Publications Associate

Ryan Mitchell, Communications & Publications Coordinator

Meg Modley Gilbertson, AIS Management Coordinator

Cynthia Norman, LCBP Resource Room Specialist

Heather Radcliffe, Director, NEIWPCC Water Resource Protection Programs

Pete Stangel, Lake Champlain Long-Term Monitoring Program (VT DEC)

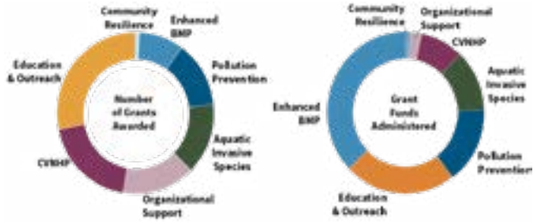
Matthew Vaughan, Technical Coordinator

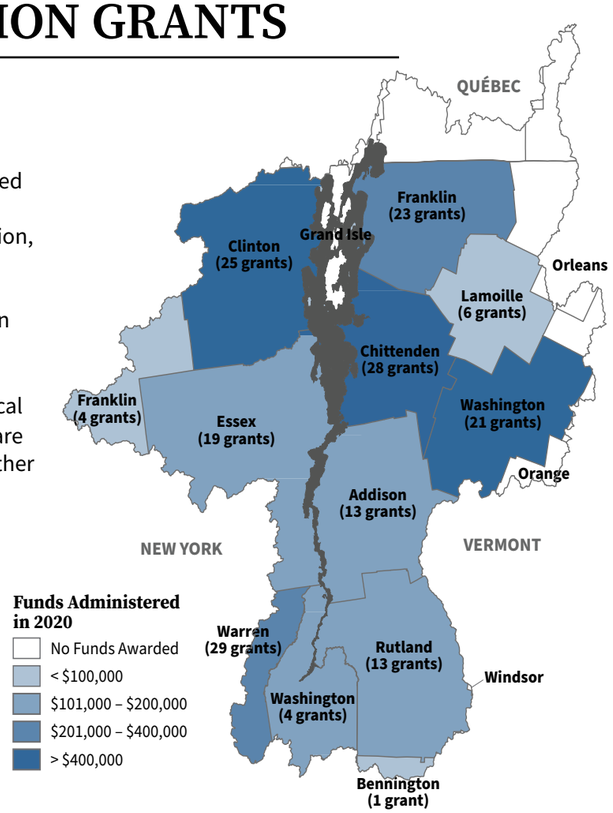
Erin Vennie-Vollrath, New York Lake Champlain Coordinator (NYS DEC)

LOCAL IMPLEMENTATION GRANTS

LCBP's Local Grant Programs provide vital support for many of the tasks included in the Lake Champlain Management Plan Opportunities for Action. The LCBP's core areas of work are addressed through grants awarded in several categories: Pollution Prevention and Habitat Conservation, Aquatic Invasive Species Spread Prevention, Education and Outreach, Organizational Support, and Cultural Heritage and Recreation. Since 1992, the LCBP has awarded more than 1,200 grants totalling more than $9,000,000 to 350 organizations.

In 2020, the LCBP administered **$3,108,500** for **188** local grants across **7** grant categories. Some of these grants are highlighted in the following pages. Learn more about other grants at lcbp.org/grants.





PROGRAM GRANTS

Each year, the LCBP supports a number of research and implementation projects. These larger projects provide data that inform management decisions and implement practices to improve the health of the Basin. Results from these studies help guide policy, and are extended by educational programming and training opportunities. Projects in FY2020 included:

Road Salt: The Ausable River Assn. is measuring the amount of salt that goes into Mirror Lake and testing the effectivness of management practices to reduce salt.
Rock River Geomorphic Assessment: Fitzgerald Environmental, Inc. is assessing the Rock River in VT and QC for channel instability and identifying potential restoration opportunities to reduce erosion.
Cormorant Management: The VT Fish and Wildlife Dept. provided technical assistance and implemented direct non-lethal mitigation measures to mitigate impacts of cormorants to nesting colonial waterbirds and waterfowl.
Cyanobacteria Monitoring: The Lake Champlain Committee coordinated and trained volunteers to monitor and report cyanobacteria blooms to help ensure public health.

CLEAN WATER

GOAL: Water in the Lake Champlain Basin's lakes, ponds, rivers, and streams that sustains diverse ecosystems, supports vibrant communities and working landscapes, and provides safe recreation opportunities.

Missisquoi River Basin Association

Program Highlights

In FY2020, LCBP staff:

- Collected critical data for scientific analyses and watershed management as part of the Long-term Water Quality and Biological Monitoring Program.
- Coordinated the work of the LCBP Technical Advisory Committee, which interprets scientific information and provides guidance on research and funding priorities for Lake Champlain management.
- Compiled a summary of hydrodynamic models of Lake Champlain for use in flood forecasting and understanding nutrient cycling dynamics (in partnership with Lake Champlain Sea Grant).
- Coordinated review and approval of more than 20 new quality assurance project plans (QAPPs) for projects requiring data collection or analysis to ensure consistent, high-quality environmental data.
- Conducted analyses for trends in tributary phosphorus loading, in-lake phosphorus and chloride concentrations, and other water quality parameters.

LCBP

Local Grant Highlights

- **Isle La Motte Lake Segment Management Plan:** The Lake Champlain-Lake George Regional Planning Board is developing goals, resource inventory, and projects to improve water quality in northern Lake Champlain.
- **Pervious Concrete:** The Lake George Association installed pervious concrete at two sites to allow more stormwater to infiltrate into the soil.
- **Salt Runoff Reduction:** The Town of Fair Haven, VT is relocating its municipal salt shed away from the Castleton River's floodplain.
- **Combined Sewer Separation:** The Town of Ticonderoga, NY purchased separator and piping and contracted project design to separate storm and sanitary sewer lines.

Lake George Association

2019 Local Implementation Grant

in progress

Ahead of the Storm Implementation Projects on Champlain Valley School District Campuses

Project Summary

This project will fund implementation of two stormwater practices (a vegetated filter strip on the Shelburne Community School campus, and an infiltration trench, filter strip, and vegetation at the Champlain Valley Union High School campus). These projects will improve water quality for 0.40 acres (SCS) and 4.4 acres (CVU), as well as create pollinator habitat (CVU). The projects will show the public a variety of optimal flood resiliency and pollution prevention practices that can be implemented at strategic locations.

Outputs:

- improved water quality for 0.40 acres (SCS) and 4.4 acres (CVU)

Outcomes:

- will show the public a variety of optimal flood resilience and pollution prevention practices that can be implemented at strategic locations.

Organization:	Lewis Creek Association
Contact Person:	Katherine Kelly
Mailing Address:	PO Box 313, 442 Lewis Creek Road, Charlotte, VT 05445
Phone:	(802) 488-5203
E-mail:	lewiscreekorg@gmail.com
Website:	www.lewiscreek.org

CVU students study the eroding swale north of the parking lot.

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-047
GLFC	0100-323-002
Start Date:	5/6/2019
Close Date:	
Grant Amount:	$50,185.00
Non-federal Match:	$ 8,000.00
Total Amount:	**$58,185.00**

2018 Local Implementation Grant — in progress

Chazy River Watershed Management Plan

Project Summary

The Isle La Motte lake segment, which is made up of the Great Chazy and Little Chazy Rivers, as well as approximately 40 square miles of nearshore land, is one of the last watersheds on the New York side of the Lake Champlain Basin without a designated watershed management plan. This creates a scenario of reactive water quality improvement implementation instead of proactive water quality improvement implementation. To address this, the Lake Champlain – Lake George Regional Planning Board (LCLGRPB) will work with state, county and local entities to create an Isle La Motte Lake Segment Management Plan. The LCLGRPB will use its extensive knowledge in comprehensive watershed planning to develop a vision and goals for the subwatershed, identify priority resource concerns, compile information on the watershed, and identify on-the-ground projects and programs that will help achieve water quality goals for the subwatershed and Lake Champlain.

Outputs:

- Watershed Management Plan to improve water quality in the Isle La Motte lake segment that can be utilized by resource managers, local municipalities, and local associations.
- develop and implement a framework for Critical Source Area analysis that will serve as a basis for targeting management actions in order to achieve the greatest phosphorus reduction and address Lake segments furthest from their water-quality targets

Outcomes:

- phosphorus and pollution reduction
- building awareness and understanding among residents about resources and behaviors that contribute to pollution

Organization: Lake Champlain—Lake George Regional Planning Board

Contact Person: Alison Hargrave-Gaddy

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Phone: 518 668-5773

E-mail: alison.gaddy@lclgrpb.org

Website: www.lclgrpb.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-011
EPA	0994-002-001
Start Date:	8/9/2018
Close Date:	
Grant Amount:	$50,000.00
Non-federal Match:	$ 5,000.00
Total Amount:	**$55,000.00**

2020 Local Implementation Grant — in progress

Coordinating Homesite Stormwater Assessments Basin-Wide to Advance Voluntary Implementation

Project Summary

The Winooski Natural Resources Conservation District, Friends of the Winooski River, and Friends of the Mad River, collectively the Winooski Basin Partners or "Partners," will launch a basin-wide collaboration pilot for targeted private roads and homesite stormwater assessments. Specific objectives include:1) Build capacity for Partners to collaborate on stormwater technical assessments, 2) Identify and engage targeted neighborhoods and communities where property assessments and direct technical assistance will leverage the greatest benefits to water quality in the Winooski Basin, 3) Advance homeowner awareness of developed lands impact on water quality and build their capacity to implement low-tech solutions for stormwater management, and 4) Develop a list of projects for future design opportunities prioritized through a basin-wide lens.

Outputs:

- 66 assessments and prescription cards developed
- list of prioritized stormwater projects on private roads and homesites cued for future funding opportunities
- a standardized tool and protocol for private homesite and road stormwater assessments used by all Partners across the Winooski basin
- summary of implementation commitments secured.

Outcomes:

- reduction of polluted stormwater runoff from private residential development.

Organization: Winooski NRCD

Contact Person: Gianna Petito

Mailing Address: 617 Comstock Rd, Suite 1, Berlin, VT 05602

Phone: 802-828-4493

E-mail: gianna@winooskinrcd.org

Website: winooskinrcd.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-019
EPA	346-002-001
Start Date:	3/9/2020
Close Date:	
Grant Amount:	$42,580.00
Non-federal Match:	$ 4,960.00
Total Amount:	**$47,540.00**

2018 Local Implementation Grant — concluded

Foster Brook Culvert Replacement

Project Summary

The goal of replacing the culvert at Goldey Road was to eliminate the firehose effect from the smaller culvert and allow the brook to flow more naturally. The wider bottomless culvert along with the stream stabilization work, will help to minimize further erosion and allow the stream to become more stable, significantly reducing Phosphorus loads entering Lake George.

Outputs:

- installation of properly sized culvert

Outcomes:

- reduction in nutrients and phosphorus from entering Lake George
- stream stabilization
- aquatic organism passage

Organization: Lake George Association

Contact Person: Randy Rath

Mailing Address: PO Box 408
Lake George, NY 12845

Phone: 518 668-3558

E-mail: rrath@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

This photo shows the current culvert in its current state taken in summer of 2017.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-006
EPA	0994-002-001
GLFC	0100-310-027
Start Date:	5/23/2018
Close Date:	**02/4/2020**
Grant Amount:	$130,585.00
Non-federal Match:	$ 28,731.01
Total Amount:	**$159,316.01**

2020 Local Implementation Grant — in progress

Georgia Shore Stormwater and Shoreline Erosion Assessment

Project Summary

Impacts from stormwater and shoreline erosion are major contributors to water quality pollution in lakefront communities across the Lake Champlain shoreline of Vermont. On the northern Lake Champlain shoreline, accelerated erosion resulting from inadequately maintained or poorly designed drainage infrastructure, coupled with lakefront encroachment and conflicts with stormwater management systems, are significant sources of nutrient pollution. The purpose of this project is to identify and prioritize problem areas associated with stormwater runoff and shoreline erosion on the lakeshore in the Town of Georgia, using a combination of desktop analysis and field investigation.

Outputs:

- identify, catalogue and prioritize problem areas
- suite of up to 3 conceptual design improvements prepared for the most critical identified locations
- repair straightforward problem areas and/or prepare final design solutions.

Outcomes:

- reduction of nutrient pollution

Organization: Friends of Northern Lake Champlain

Contact Person: Patrick Daunais

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St. Albans, VT 05478

Phone: 802.238.6973

E-mail: pdaunais@friendsofnorthernlakechamplain.org

Website: https://www.friendsofnorthernlakechamplain.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-003
EPA	995-002-001
Start Date:	2/10/2020
Close Date:	
Grant Amount:	$25,846.00
Non-federal Match:	$ 2,420.00
Total Amount:	**$28,266.00**

2019 Local Implementation Grant — in progress

I-87 Asphalt Swale Replacement & Ditch Improvements

Project Summary

This project will treat approximately 2,500 linear feet of the impervious asphalt swales along I-87 in Lake George, NY. Pavement will be removed and replaced with erosion control products to keep the channel stable and allow infiltration. Several basins will also be constructed to improve water quality flowing into Lake George. The existing asphalt will be removed from the channel and the swales will be reshaped, hydroseeded with an annual rye grass and hand seeded with Little Bluestem before the erosion control materials are placed in the swale. The outcome will be a significant increase in infiltration and a significant reduction in volume of water reaching Lake George, improving the overall water quality.

Outputs:

- removal of 2,500 linear feet of impervious surface within the Lake George watershed.

Outcomes:

- increase in infiltration and reduction in volume of water reaching Lake George
- improvement of water quality flowing into Lake George

Organization: Lake George Association

Contact Person: Randy Rath

Mailing Address: PO Box 408
Lake George, NY 12845

Phone: 518-668-3558

E-mail: rrath@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

Close-up photograph showing Asphalt Swales along I-87.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-039
EPA	0995-002-001
Start Date:	5/6/2019
Close Date:	
Grant Amount:	$86,227.00
Non-federal Match:	$ 350.00
Total Amount:	**$86,612.00**

2020 Local Implementation Grant — in progress

Johnsons Mill Dam Removal in Bakersfield, VT

Project Summary

The Johnsons Mill Dam is a partially breached stone and concrete structure approximately 125 feet long located along the Bogue Branch in Bakersfield, Vermont. The Bogue Branch is a tributary to the Tyler Branch which flows into the Missisquoi River. The Franklin County Natural Resources Conservation District (the District, Franklin County NRCD) is acting as project manager on behalf of the landowner, Steve Cooper, who has requested assistance with the complete removal of the dam and associated structures to restore the Bogue Branch to a free-flowing state and to improve water quality, flood resilience, and aquatic organism passage (AOP) in the Lake Champlain Basin. To achieve the removal of the Johnsons Mill Dam, the District intends to use the funds from this award to hire a consultant to oversee construction, to hire a contractor to implement the dam removal and associated stream restoration, and to promote the project's success and the partnerships that were developed in the process.

Outputs:

- removal of the Johnson's Mill dam

Outcomes:

- stream restoration
- pollution reduction

Organization: Franklin County NRCD

Contact Person: Brodie Haenke

Mailing Address: 50 South Main St. Suite B-20
St. Albans, VT 05478

Phone: 802-528-4180

E-mail: Broderick.haenke@vt.nacdnet.net

Website:
www.vacd.org/conservation-districts/franklin-county/

Taken November 15, 2019 – Brodie Haenke (stands upstream of the Johnson Mill Dam's stop-log channel that breached during the October 31, 2019 rainstorm.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-021
EPA	346-002-001
Start Date:	3/23/2020
Close Date:	
Grant Amount:	$125,000.00
Non-federal Match:	
Total Amount:	**$125,000.00**

2019 Local Implementation Grant — concluded

Kennedy Drive Pond 5/6 Retrofit

Project Summary

The Kennedy Drive Pond 5-6 Retrofit project expanded the drainage area of Kennedy Drive "Pond 5", an infiltration treatment practice, by modifying the existing stormwater collection system to redirect runoff that is currently going into Kennedy Drive Pond 6 into the infiltrating system of Pond 5 as well as directing runoff from the Windridge Condominium development into Pond 5. Retrofitting the collection system to expand the drainage area to Pond 5 resulted in a significant reduction of phosphorous delivered to Lake Champlain from Kennedy Drive and an adjacent neighborhood. In addition, the project reduced the peak rate at which stormwater is discharged from the contributing impervious area. This will benefit Potash Brook, which is currently listed as impaired due to uncontrolled stormwater runoff.

Outputs:

- Final engineered design plans for the stormwater practice modification
- instalation of 190 feet of 15" diameter pipe and two catch basin features

Outcomes:

- treatment of 2.7 acres of drainage area
- estimated reduction of 2.84 lbs of phosphorus entering Lake Champlain annually

Organization: South Burlington Stormwater Utility

Contact Person: Thomas J. DiPietro Jr.

Mailing Address: 104 Landfill Road
South Burlington, VT 05403

Phone: (802) 658-7961 x6108

E-mail: tdipietro@sburl.com

Website: www.sburlstormwater.com

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-058
EPA 0995-002-001
Start Date: 5/21/2019
Close Date: **1/2/2020**
Grant Amount: $79,271.00
Non-federal Match: $19,817.00
Total Amount: **$99,088.00**

2020 Local Implementation Grant — in progress

Lake Forest Condominiums Stormwater System Upgrade and Stream Daylight

Project Summary

The Lake Forest Condominiums is an existing residential development off of Flynn Avenue in Burlington, VT that was originally developed in the 1980's. The stormwater management system permitted and installed at the time is a series of 3 shallow ponds that over the years have presented many challenges to the homeowners. Current stormwater research has shown that pond systems perform poorly for removing phosphorus, and thus current State regulations have moved away from such features. The Owners wish to upgrade the pond system to a modern bioretention filter design that will improve phosphorus treatment for runoff. As a component of this upgrade the Owners wish to daylight a tributary that was originally culverted under the development. Stormwater runoff from the site and this tributary drain directly to Blanchard Beach at Oakledge Park, a swimming area frequented by many recreational enthusiasts.

Outputs:

- design plans for installation of bioretention filter
- 370 feet of stream will be daylighted and restored to a natural condition including a buffer

Outcomes:

- reduction of phosphorus to Lake Champlain
- improved water quality at Blanchard Beach at Oakledge Park, Burlington VT

Organization: Lake Forest At Oakledge Condominium Association

Contact Person: Craig Smith

Mailing Address: P.O. Box 3009
Burlington, VT 05408-3009

Phone: 802-652-0908

E-mail: craigfsmith23@gmail.com

Website:

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-014
EPA 994-002-001
Start Date: 6/26/2020
Close Date:
Grant Amount: $38,900.00
Non-federal Match:
Total Amount: **$38,900.00**

2020 Local Implementation Grant — in progress

Lamoille Union High School Green Stormwater Infrastructure Retrofit

Project Summary

Drainage from the western portion of LUHS is collected via roof drains and surface flow in a series of catch basins and discharged over the bank to an unnamed tributary of the Lamoille River northwest of the paved access drive without any water quality management. The proposed retrofit for this site involves rerouting the existing storm line to a subsurface storage and infiltration system under the paved parking lot located northwest of the School (see pictures below). The resulting water quality treatment of 2.62 acres would result in an estimated phosphorus removal of .56 lbs. and 564 lbs. of suspended solids per year.

Outputs:

- rerouting of existing storm line
- educational signage will be included on site as well as an academic curriculum and educational outreach materials based upon BMP.

Outcomes:

- phosphorus reduction

Organization:	Lamoille County NRCD
Contact Person:	Peter Danforth
Mailing Address:	109 Professional Dr., Suite #2 Morrisville, VT 05661
Phone:	(802) 521-3004
E-mail:	lccddirector@gmail.com
Website:	http://www.lcnrcd.com/

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-006
EPA	346-002-001
Start Date:	2/16/2020
Close Date:	
Grant Amount:	$104,595.00
Non-federal Match:	$ 19,000.00
Total Amount:	**$123,595.00**

2020 Local Implementation Grant — in progress

Otis Brook Stream Crossing Replacement, Jay Mountain Rd, Ausable River Watershed

Project Summary

The primary goal of this project is to replace the second undersized and failing culvert over Otis Brook on Jay Mountain Road, Jay, NY. The first crossing was replaced, and the stream restored in 2016 through a partnership led by the Ausable River Association (AsRA) and including the US Fish and Wildlife Service (FWS), the Town of Jay, NY, and The Nature Conservancy – Adirondack Chapter (TNC). This second crossing will use our Climate Ready Culvert design approach that supports aquatic organism passage, stream function, and flood resiliency standards. The objectives of the project include: 1) create a wider, flood resilient structure sized at 1.25 times bankfull with the hydraulic capacity to pass a 100-year flood event at 80% volume, 2) ensure aquatic organism passage, 3) restore a natural channel bed and instream habitat, 4) improve water quality, and 5) reduce or eliminate frequent and costly maintenance activities.

Outputs:

- wider, flood resilient structure
- restore a natural channel bed and instream habitat

Outcomes:

- improved aquatic organism passage
- improved water quality

Organization:	Ausable River Association
Contact Person:	Kelley Tucker
Mailing Address:	PO Box 8 Wilmington, NY 12997
Phone:	518-637-6859
E-mail:	ktucker@ausableriver.org
Website:	https://www.ausableriver.org/

2017 Climate Ready Culvert under construction – West Branch Tributary @ Nugent Road, Town of Jay

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-020
EPA	346-002-001
Start Date:	3/23/2020
Close Date:	
Grant Amount:	$100,000.00
Non-federal Match:	$ 9,100.00
Total Amount:	**$109.000.00**

2020 Local Implementation Grant — in progress

Planning/Prioritization for Ahead of the Storm Projects at Shelburne Museum

Project Summary

Lewis Creek Association and the Museum request funding to perform a site assessment and create a stormwater master plan for Shelburne Museum. The requested funds will also provide three concept designs and one engineered final design for a project identified as high priority. The group will develop publicity and educational and stewardship materials for the Museum to launch LCA's new Ahead of the Storm (AOTS) site for public and museum staff learning and education. This project will showcase Shelburne Museum's stormwater treatments as AOTS demonstration sites to explain how their optimal conservation practices (OCPs) in the McCabe's watershed are designed to address Lake Champlain and McCabe's Brook phosphorus pollution by preventing phosphorus pollution during more extreme weather events due to climate change.

Outputs:

- three concept designs and one engineered final design
- publicity and educational and stewardship materials for the Museum
- AOTS demonstration sites at the Museum

Outcomes:

- phosphorous pollution reduction

Organization: Lewis Creek Association

Contact Person: Katherine Kelly

Mailing Address: PO Box 313, 442 Lewis Creek Road
Charlotte, VT 05445

Phone: (802) 488-5203

E-mail: lewiscreekorg@gmail.com

Website: www.lewiscreek.org

Shelburne Museum Meeting House stormwater pond

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-010
GLFC	0100-328-002
Start Date:	2/11/2020
Close Date:	
Grant Amount:	$42,895.00
Non-federal Match:	$ 7,600.00
Total Amount:	**$50,495.00**

2019 Local Implementation Grant — in progress

Reducing Combined Sewer Overflows to Lake Champlain through Public Private Partnerships and Innovative Technology

Project Summary

To address CSO challenges, the Greater Burlington YMCA Foundation proposes to design and implement continuous monitoring and adaptive control (CMAC) ("smart control") technology on the underground stormwater detention vault at the proposed Greater Burlington YMCA at 298 College Street, Burlington, VT.

Outputs:

- design plan set, a site-specific software configuration report, hardware delivered to the project site, hardware installation, site commissioning, final software configuration, production optimization support, project startup, eight month performance summary.

Outcomes:

- scalable public private partnerships, community education, water availability for reuse, scalability, water quality improvement, targeted maintenance alerting, economic benefits, and flood mitigation.

Organization: Greater Burlington YMCA Foundation, Inc.

Contact Person: Kyle Dodson

Mailing Address: 266 College Street
Burlington VT 05401

Phone: 802.652-8133

E-mail: kdodson@gbymca.org

Website: gbymca.org

Rendering of a CMAC actuated valve used for CSO-mitigation at Southwest Park in Hoboken, NJ.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-071
EPA	0995-002-001
Start Date:	7/8/2019
Close Date:	
Grant Amount:	$111,490.00
Non-federal Match:	$ 6,000.00
Total Amount:	**$117,490.00**

2020 Local Implementation Grant — in progress

Salt Runoff Reduction Project

Project Summary

The Town of Fair Haven's salt storage shed currently sits 8 yards from the Castleton River. This project will cover the cost of engineered plans and paving related to the relocation and installation of a new improved facility at the Town's decommissioned airport, away from the Castleton River's floodplain. This will decrease the amount of chloride flowing to Lake Champlain. The current site contamination will be reduced to 0. It is estimated that this project will reduce the amount of chloride flowing to waterways by 2 tons annually of 60 tons over the life of the project.

Outputs:

- construction of a new and improved salt storage facility.

Outcomes:

- decreased amount of chloride flowing to Lake Champlain.

Organization: Town of Fair Haven

Contact Person: Joseph Gunter

Mailing Address: 5 North Park Place
Fair Haven, VT 05743

Phone: 802-265-3010 ext 5

E-mail: fhmanager@comcast.net

Website: http://www.fairhavenvt.org/

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-004
GLFC	100-316
Start Date:	2/10/2020
Close Date:	
Grant Amount:	$ 50,952.00
Non-federal Match:	$152,000.00
Total Amount:	**$202,952.00**

2020 Local Implementation Grant — in progress

Stormwater Improvements at the Milton DPW Highway Garage in the Lamoille River Watershed, Milton, VT

Project Summary

This project consists of the final design for the Public Works Highway Garage parking, where the possibility of salt, magnesium chloride and other compounds typically used in a garage setting might discharge into the adjacent Lamoille River. The Town is currently evaluating locations to relocate the garage, but this project will be several years in development. The front area of the Town Garage drains onto a paved parking lot where runoff typically concentrates in a low spot, flows across a narrow grassed strip and empties directly into the Lamoille River.

Outputs:

- final design for Public Works Highway Garage parking

Outcomes:

- reduction of pollutants into Lamoille River

Organization: Town of Milton

Contact Person: Ashley Jackson

Mailing Address: 43 Bombardier Road
Milton, VT 05468

Phone: 802-891-8043

E-mail: AJackson@miltonvt.gov

Website: www.miltonvt.gov

Flow path from parking lot

Roof drains onto parking area with high sediment and salt loads

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-018
EPA	995-002-001
Start Date:	
Close Date:	
Grant Amount:	$5,000.00
Non-federal Match:	
Total Amount:	**$5,000.00**

2019 Local Implementation Grant — in progress

Stormwater Mitigation Final Designs: Berlin, Vermont

Project Summary

The main objective for this project is to bring three stormwater mitigation sites in the Town of Berlin to final design in order to implement the projects in the future. These sites were identified in 2017 as three of the top 5 sites to further for stormwater mitigation in the Stormwater Master Plan for the Town of Berlin, VT. During this planning process, these sites received 30% designs and this project will bring the sites to final design.

Outputs:

- final designs for stormwater mitigation at Berlin Elementary School, Berlin Fire Department and Chimney Sweep Fireplace Shop Parking Lot

Outcomes:

- reduction in nutrient inputs from developed land

Organization: Central Vermont Regional Planning Commission

Contact Person: Pamela DeAndrea

Mailing Address: 29 Main Street, Suite 4 Montpelier, VT 05602

Phone: (802) 229-0389

E-mail: deandrea@cvregion.com

Website: http://centralvtplanning.org/

Lake Champlain Basin Program

NEIWPCC Code: LS-2019 057
EPA 0995-002-001
Start Date: 5/30/2019
Close Date:
Grant Amount: $49,954.00
Non-federal Match: $ 1,100.00
Total Amount: **$51,054.00**

2020 Local Implementation Grant — in progress

Stormwater Reduction in the Town of Brandon

Project Summary

Two Best Management Practices (BMP's) identified in the Stormwater Master Plan for the Town of Brandon prepared by Watershed Consulting Associates, LLC in October 2017 will be brought to final design and installed. The first project is a series of streetscape bioretention practices (bio-swales) along the entire length of Pearl Street in downtown Brandon. The second project is located at Café Provence which is right next to the Neshobe River. An existing catch basin will be replaced with a concrete dry well in the upper portion of the parking lot and a lined bioretention practice will be installed along the edge of the parking lot.

Outputs:

- 2 final engineered designs created
- installation of a series of bio-swales along the length of Pearl Street in downtown Brandon.
- replacement of an existing catch basin with a concrete dry well and the installation of a lined bioretention practice at Café Provence

Outcomes:

- estimated water quality benefits for both projects are: 6,487 lbs of TSS removed annually and 6.595 lbs of TP removed annually.
- estimated treatment of 2.756 acres of drainage area with 1.272 acres of this being impervious surface

Organization: Rutland NRCD

Contact Person: Nanci McGuire

Mailing Address: 170 South Main Street Ste. 4 Rutland, VT 05701

Phone: 802-775-8034 ext. 117

E-mail: nanci.mcguire@vt.nacdnet.net

Website: https://www.vacd.org/conservation-districts/rutland/

Café Provence before

Lake Champlain Basin Program

NEIWPCC Code: L-2019-102
GLFC 100-316
Start Date: 1/13/2020
Close Date:
Grant Amount: $74,076.00
Non-federal Match:
Total Amount: **$74,076.00**

2019 Local Implementation Grant — in progress

The Prioritization and Design of Transportation Stormwater Mitigation Projects in Northwestern Vermont

Project Summary

Northwest Regional Planning Commission will complete a planning and design process involving municipalities in Franklin and Grand Isle Counties to identify and prioritize transportation stormwater mitigation projects.NRPC will utilize the current list of projects that have been identified in existing assessments but will also meet with state and municipal partners to identify if additional stormwater mitigation issues have come to light since the prior assessments were conducted. The planning process will result in a prioritized list of projects and the conceptual or preliminary design of up to three priority projects.

Outputs:

- development of a list of prioritized projects and up to three engineered design plans for priority projects

Outcomes:

- mitigation of stormwater and reduction of sediment loading from the transportation system

Organization:	Northwest Regional Planning Commission
Contact Person:	Amanda Holland
Mailing Address:	75 Fairfield Street St. Albans, VT 05478
Phone:	802-524-5958
E-mail:	aholland@nrpcvt.com
Website:	www.nrpcvt.com

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-080
EPA	0995-002-001
Start Date:	7/10/2019
Close Date:	
Grant Amount:	$41,107.00
Non-federal Match:	
Total Amount:	**$41,107.00**

2019 Local Implementation Grant — in progress

Transforming Hyde Park Village Center into a Net Zero Runoff Showcase Using Green Stormwater Infrastructure (a.k.a. "Hyde Park Net Zero Showcase")

Project Summary

The Hyde Park Net Zero Showcase project will transform the Village of Hyde Park Village Center into a Net Zero Runoff condition by using established Green Stormwater Infrastructure ("GSI") and exploring incorporation of innovative stormwater collection and treatment systems. This study will provide methods and means to eliminate existing unmanaged and untreated stormwater generated by existing uses along "Main Street" and anticipate & facilitate future village center land development by providing comprehensive stormwater plan elements to be incorporated into private and public land development permits.

The Project goals are unique in the sense that there are no known Village Centers in Vermont that prevent polluted stormwater runoff from flowing to waters of the State. Given that village development predates stormwater controls and the highly constrained nature of the Village Centers to easily accept the installation of robust stormwater controls, the planning for new stormwater infrastructure is typically very challenging and guidance for private and public investors will accelerate clean water objectives.

Outputs:

- design of a sustainable GSI system for the designated Village Center area within Hyde Park.

Outcomes:

- reduce sediment, phosphorus, and stormwater volume to waters within the Lake Champlain Basin
- help the Town increase resiliency to flooding in the face of more intense precipitation events.

Organization:	Town of Hyde Park, VT
Contact Person:	Ron Rodjenski
Mailing Address:	344 Route 15 W, PO Box 98 Hyde Park, VT 05655
Phone:	802-888-2300 x2
E-mail:	Ron@hydeparkvt.com
Website:	www.hydeparkvt.com

Sweet Crunch Bakery Sidewalk 2017 - Main St

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-084
GLFC	0100-323-002
Start Date:	9/6/2019
Close Date:	
Grant Amount:	$50,000.00
Non-federal Match:	
Total Amount:	**$50,000.00**

2020 Local Implementation Grant — in progress

UVM Horticultural Farm Stormwater Improvements

Project Summary

The UVM Horticultural Farm Stormwater Improvements project is an engineering design project located in South Burlington, Vermont. This project aims to provide treatment for stormwater runoff in the stormwater impaired watershed of Bartlett Brook. Successful implementation of this project will result in construction ready engineering plans for a stormwater treatment practice (STP). Once constructed, this STP will provide stormwater treatment to at least 3.96 impervious acres within the stormwater impaired watershed of Bartlett Brook.

Outputs:

- 100% Design Plans and Specification for the construction of a stormwater treatment practice

Outcomes:

- Reduction in peak flows in the stormwater impaired Bartlett Brook Watershed and reduced phosphorous loading the Lake Champlain.

Organization: South Burlington Stormwater Utility

Contact Person: Thomas DiPietro Jr.

Mailing Address: 104 Landfill Road
South Burlington, VT 05403

Phone: (802) 658-7961

E-mail: tdipietro@sburl.com

Website: www.sburlstormwater.com

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-032
EPA	346-002-001
Start Date:	3/23/2020
Close Date:	
Grant Amount:	$42,500.00
Non-federal Match:	$ 7,500.00
Total Amount:	**$50,000.00**

2018 Local Implementation Grant — in progress

Tile Drain Base Flow Phosphorus Removal Using St George Black

Project Summary

Tile drain effluent is a poorly understood and potentially significant source of phosphorus loading to Lake Champlain. End of tile treatments require different approaches based on changing flow conditions. This project proposes an experimental set-up to evaluate the efficacy of a locally-sourced shale material (St. George Black) as an adsorptive media filter exclusively for low-flow conditions.

Outputs:

- data evaluating water quality exiting tile drains during base-flow and mass removal efficiency and hydraulic performance of the adsorptive media filter.

Outcomes:

- improved understanding of tile drain effluent water quality and potential treatment system efficacy

Organization: Watershed Consulting Associates, LLC

Contact Person: Andres Torizzo

Mailing Address: PO Box 4413
208 Flynn Ave Suite 2H
Burlington, VT 05401

Phone: 802-497-2367

E-mail: andres@watershedca.com

Website: https://watershedca.com

Image of tile ditch with perforated corrugated pipe for drainage (tile drain). Photo credit: Deerbuilder.com

Lake Champlain Basin Program

NEIWPCC Code:	L-2018-009
EPA	0994-002-001
Start Date:	7/9/2018
Close Date:	
Grant Amount:	$45,850.00
Non-federal Match:	$ 820.00
Total Amount:	**$46,670.00**

2018 Local Implementation Grant — in progress

Tile Drainage Systems Monitoring and Assessment in the Northern and Southern Lake Champlain Basin, and Comparing two active Media Filters to Remove Phosphorus from Tile Drainage Water in the St Albans Bay Watershed, VT

Project Summary

Stone Environmental, Inc. (Stone) will work in close consultation with the Lake Champlain Basin Program (LCBP) on an innovative project aimed at increasing scientific knowledge and understanding concerning the impacts of subsurface agricultural tile drainage systems on water quality and exploring cost-effective methods to remove phosphorus from tile drainage water in the Lake Champlain Basin (*Opportunities for Action*, Objectives I.A and I.C). In this project, we combine two studies – a Tile Drain Monitoring Study and a Tile Drain Treatment Study

Outputs:

- evaluate nutrient outputs from agricultural tile drains in the northern and southern Lake Champlain Basin and assess the significance of these loadings to Lake Champlain.
- extend monitoring of five of the twelve existing tile drain stations in the Jewett Brook watershed to build a more robust dataset
- expand monitoring to five new tile drains in Addison and Rutland Counties to represent typical field conditions in the southern Lake Champlain Basin.
- dataset produced through this study will help the State understand the scope of the potential problem as well as the effects of field management and conservation practices.
- the design, construction, and evaluation of an innovative, in-ground phosphorus (P) removal system using different locally sourced filter media to treat tile drainage water on a commercial dairy farm in the St. Albans Bay watershed

Outcomes:

- to inform decision making regarding installation and management of tile drainage systems in the Lake Champlain Basin
- The filter design and associated procedures and guidance will provide managers and technicians in the LCB with a tested and documented approach for reducing P contributions from tile drains.

Organization: Stone Environmental, Inc.
Contact Person: Dave Braun
Mailing Address: 535 Stone Cutters Way, Montpelier, VT 05602
Phone: (802) 229-4541
E-mail: dbraun@stone-env.com
Website: http://www.stone-env.com/

Phosphorus filters filled with media, prior to placing on lids. Filter B (left) was comprised of limestone "bedding sand" and Filter A (right) contained drinking water treatment residuals.

Lake Champlain Basin Program

NEIWPCC Code: L-2018-008
EPA 993-003-001/ 994-002-001
Start Date: 7/17/2018
Close Date:
Grant Amount: $226,400.00
Non-federal Match: $ 6,101.00
Total Amount: **$232,501.00**

2020 Local Implementation Grant — in progress

Advancing a Riparian Restoration Protocol for the Ausable Watershed

Project Summary

Sediment in streams due to bank instability and collapse remains a primary pollutant in the Ausable River system, choking habitat, releasing nutrients and chemicals normally bound in soils, and weakening the river's capacity to manage flood flows. Riparian cover is necessary to prevent erosion, stabilize banks, and create habitat for native species. In 2020, the Ausable River Association (AsRA) will conduct riparian plantings and use the US Fish and Wildlife Service's Riparian Restoration Monitoring Protocol to setup monitoring transects at new sites and monitor five transects created in 2019. The project will also create custom grass and flowering plant seed mixes for local watersheds, use live staking to revegetate restoration sites, and host a tree planting workshop to educate the community and develop a team of core volunteers for future planting efforts. Lessons learned from this project will be especially useful in the coming years due the advancement of a multi-year effort to restore equilibrium and habitat diversity to the East Branch of the Ausable River.

Outputs:

- riparian plantings
- set up of monitoring transects at new sites and monitoring of five transects created in 2019
- custom grass and flowering plant seed mixes for local watersheds
- live staking to revegetate restoration sites
- host a tree planting workshop to educate the community
- develop a team of core volunteers for future planting efforts

Outcomes:

- reduction of pollution in the Ausable River system

Organization: Ausable River Association
Contact Person: Carrianne Pershyn
Mailing Address: PO Box 8, Wilmington, NY 12997
Phone: 518-637-6859
E-mail: cpershyn@ausableriver.org
Website: www.ausableriver.org

Ausable River Association (AsRA) and Essex County Soil Water Conservation District staff trying out live staking of native willows in 2019. Photo credit: Stephen Langdon

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-016
EPA 346-002-001
Start Date 3/2/2020
Close Date:
Grant Amount: $20,000.00
Non-federal Match: $ 2,000.00
Total Amount: **$22,000.00**

2020 Local Implementation Grant — in progress

Converting Lawn to Forest for Water Quality Protection

Project Summary

This lawn-to-forest program will recruit landowners willing to let us plant woody vegetation on residential lawns in the Winooski River watershed in order to reduce the volume and polluting effects of stormwater runoff from developed land. The output will be at least 4 acres of woody plantings on at least 16 residential sites, and the desired outcomes are cleaner surface waters, better habitat and species diversity in suburban and urban areas, improved flood resilience, healthier communities, and a more engaged public aware of how their properties impact water quality, flooding, and habitat.

Outputs:

- minimum 4 acres of woody plantings on at least 16 residential sites

Outcomes:

- cleaner surface waters
- better habitat and species diversity in suburban and urban areas
- improved flood resilience
- healthier communities
- more engaged public aware of how their properties impact water quality, flooding, and habitat.

Organization: Friends of the Winooski River

Contact Person: Shawn White

Mailing Address: P.O. Box 777
Montpelier, VT, 05601

Phone: (802) 371-8988

E-mail: shawn@winooskiriver.org

Website: https://winooskiriver.org/

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-013
EPA 346-002-001
Start Date: 3/9/2020
Close Date:
Grant Amount: $18,301.00
Non-federal Match: $14,400.00
Total Amount: **$32,701.00**

2020 Local Implementation Grant — in progress

Demonstrating Nature-Based Driveway Solutions in the Flower Brook Watershed

Project Summary

Two eroded, polluting driveways will be transformed to model a variety of green stormwater practices in the Flower Book Watershed of Danby and Pawlet, VT. The purpose of this project is to implement drainage improvement/erosion reduction projects and to provide much-needed information on driveway drainage and maintenance to landowners to minimize the impacts that gravel driveways have on waterways. This grant focuses on implementing drainage projects, adapting green stormwater practices to rural driveways, and demonstrating innovative ways to mitigate runoff in headwater watersheds. PMNRCD proposes holding two 'stormwater management on driveway' workshops as the implementation work is being completed; one with homeowners and one with contractors who maintain driveways. PMNRCD will enlist a qualified consultant and machinery operator to assist with the on-site demonstration projects. Additionally, we will share all information and materials with partners, including our watershed resilience partners at High Meadows Fund and LCBP (who can use their social media to post information).

Outputs:

- installation of driveway BMPs
- two 'stormwater management on driveway' workshops as the driveway implementation work is being completed; one with homeowners and one with contractors who maintain driveways

Outcomes:

- This project will provide education about a relatively inexpensive way to manage stormwater runoff on unregulated and possibly 1/3 of the road miles in Vermont (Stone, 2016), leading local homeowners and driveway maintenance contractors to address driveway-related drainage using a variety of infiltration and clean water diversion practices, improving water quality and increasing flood resilience

Organization: Poultney-Mettowee NRCD

Contact Person: Hilary Solomon

Mailing Address: PO Box 209
Poultney, VT 05764

Phone: (802) 558-3515

E-mail: Hilary@pmnrcd.org

Website: www.pmnrcd.org

Driveway workshop July 2017

Lake Champlain Basin Program

NEIWPCC Code: L-2020-025
GLFC 0100-328-002
Start Date 3/26/2020
Close Date:
Grant Amount: $19,992.00
Non-federal Match: $ 4,070.00
Total Amount: $24,062.00

2019 Local Implementation Grant — concluded

Developing a Riparian Restoration Protocol for the Ausable Watershed

Project Summary

The Ausable River Association (AsRA) completed the first phase of a multi-year effort to collect data on how to best restore equilibrium and habitat diversity to the East Branch of the Ausable River. AsRA and a contracted biologist conducted plant identification surveys at four reference sites on the East Branch and West Branch of the Ausable River. Using the US Fish and Wildlife Service's Riparian Restoration Monitoring Protocol, AsRA monitored the survival and growth of trees and shrubs planted at two past natural stream restoration sites. In addition, a test plot was planned and planted at a recently completed natural stream restoration site to help determine the best plants and planting methods to use for future riparian restoration projects in the Ausable and neighboring watersheds.

Outputs:

- completion of riparian vegetation surveys at four natural sites along the East Branch and West Branch Ausable River
- application of the US Fish and Wildlife Service's Riparian Restoration Monitoring Protocol to three AsRA natural stream restoration project sites in the Ausable River watershed
- 120 trees planted and monitored at a riparian restoration site

Outcomes:

- increased knowledge of the natural plant communities established along riparian areas
- improvement of planting and establishment of successful riparian buffers methods on both poorly vegetated shorelines and streambanks, and newly created natural stream restoration structures
- creation of a draft Riparian Restoration Protocol for the Ausable River Watershed

Organization: Ausable River Association (AsRA)

Contact Person: Brendan Wiltse

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518-637-6859

E-mail: brendan@ausableriver.org

Website: www.ausableriver.org

Lake Champlain Basin Program

NEIWPCC Code: L-2019-049
GLFC 0100-323-002
Start Date: 5/6/2019
Close Date: **1/14/2020**
Grant Amount: $12,285.00
Non-federal Match: $ 1,672.00
Total Amount: **$13,957.00**

2019 Local Implementation Grant — in progress

Green Stormwater Infrastructure for Reduction and Treatment of Stormwater

Project Summary

Friends of Northern Lake Champlain (FNLC) will install 3-4 green stormwater infrastructure best management practices and tie the projects into STEM education at 3 public schools in the towns of Alburgh, Georgia, and Fairfax, Vermont. The grant will pay for the siting, design, education, and installation of up to 4 small-scale green stormwater infrastructure (GSI) projects with a focus on bio-retention rain gardens.

Outputs:

- installation of three green stormwater infrastructure best management practices at public schools

Outcomes:

- reduction of the amount of phosphorous and pollutants that are transported into natural waterways via stormwater runoff
- area schools will help educate and drive early adopters in the community.

Organization: Friends of Northern Lake Champlain

Contact Person: Kent Henderson

Mailing Address: PO Box 58
Swanton, VT 05488

Phone: 802-373-1998

E-mail: khenderson@friendsofnorthernlakechamplain.org

Website: https://www.friendsofnorthernlakechamplain.org

Lake Champlain Basin Program

NEIWPCC Code: L-2019-050
GLFC 0100-323-002
Start Date: 5/6/2019
Close Date:
Grant Amount: $19,960.00
Non-federal Match: $ 4,740.00
Total Amount: **$24,700.00**

2018 Local Implementation Grant — in progress

Headwaters to South Lake, Implementation without Borders

Project Summary

This project supports pollution prevention programs from the forested headwaters to the lakeshores in the South Lake watershed. In the headwaters, the District will work with contiguous property owners in two priority areas, enhancing the ability of the landowners to coordinate efforts and ensure that the forest retains sediments, attenuates phosphorus, and enhances water quality. Around our local lakes, a District team will follow our LEAP model to educate youth and landowners about water quality issues and install buffers and raingardens on shoreline properties. The outputs will include

Outputs:

- at least five forestry practice projects
- 6-10 lakeshore water quality improvement projects
- cross-boundary project coordination opportunities for landowners.

Outcomes:

- reduced phosphorus loading to Lake Champlain
- providing watershed and water-quality education programs for K-12 youth, teachers, and adults
- increase resident awareness about local resources and behaviors that contribute to pollution
- opportunities for hands-on citizen action

Organization: Poultney-Mettowee NRCD

Contact Person: Hilary Solomon

Mailing Address: PO Box 209
Poultney, VT 05764

Phone: (802) 287-8339

E-mail: hilary@pmnrcd.org

Website: http://www.pmnrcd.org/

The 2014 LEAP planting crew, including 2 college interns and 4 high school interns.

Lake Champlain Basin Program

NEIWPCC Code:	L-2018-010
GLFC	0100-319-002
Start Date:	7/23/2018
Close Date:	
Grant Amount:	$25,000.00
Non-federal Match:	$ 4,460.00
Total Amount:	**$29,460.00**

2019 Local Implementation Grant — in progress

Installation of Precast Pervious Concrete in the Village of Lake George

Project Summary

The Lake George Association (LGA) installed precast pervious concrete at two demonstration sites in the Lake George watershed. The pervious concrete replaced impervious surfaces and now allows for stormwater to be infiltrated into the soils rather than runoff directly into Lake George. 529 sq ft of pervious concrete was installed in the Village of Lake George next to Shepard Park. This site was selected because it gets year-round exposure to vehicle and foot traffic and receives winter maintenance. 180 sq ft of pervious concrete was installed at the entrance of Ushers Park in the Town of Lake George. This site was chosen as the dirt pathway was compacted, unable to grow grass, and stormwater from the adjacent parking lot flooded this site during rain events. Both the Village and Town of Lake George have seen the benefits of it immediately. The Village is already working to install an additional 100' of the porous concrete on sidewalks in the Village. The Town has expressed interest in adding more of the product in the park to eliminate as much stormwater as possible before it heads down the hill and into the lake.

Outputs:

- installation of 709 sq ft of pervious concrete in the Lake George watershed, replacing what was impervious surface

Outcomes:

- reduced stormwater and nutrient inputs from impervious parking lots/roadways entering the Lake George watershed
- increased visibility of the benefits of pervious concrete versus impervious surfaces for managing stormwater and nutrient runoff from entering Lake George

Organization: Lake George Association

Contact Person: Randy Rath

Mailing Address: PO Box 408
Lake George, NY 12845

Phone: 518-668-3558

E-mail: rrath@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-040
EPA	0995-002-001
Start Date	5/6/2019
Close Date:	**9/9/2020**
Grant Amount:	$18,446.00
Non-federal Match:	$ 5,662.00
Total Amount:	**$24,108.00**

2020 Local Implementation Grant — in progress

LakeWise Project Implementation on Lake St Catherine

Project Summary

In cooperation with the Poultney Mettowee Natural Resource Conservation District (PMNRCD or District), the Lake St Catherine Association (LSCA) is implementing at least 10 green stormwater practices on shoreline properties surrounding Lake St Catherine. Outputs: The LSCA will create structured neighborhood groups with assigned captains and a meeting schedule. In addition to the 10 stormwater practices implemented, PMNRCD will conduct at least 15 LakeWise assessments and make at least 45 project recommendations. Outcomes: LSCA meetings will enhance the awareness and energy the LakeWise programming brings, creating a culture of clean water advocates who understand and appreciate the benefits of broad, natural buffers; discrete, thoughtful access to the lakeshore, and minimal compacted lawn and patio areas. Project recommendations through the LakeWise assessments will provide homeowners with information to implement changes on their own. Collectively, these projects will result in a reduction of untreated stormwater entering Lake St Catherine as well as an increase in the number of native plants on the shoreline.

Using a neighborhood approach, we aim to enhance awareness and energy around lake-friendly living, creating a culture of clean water advocates who understand and appreciate the benefits of broad, natural buffers; discrete, thoughtful access to the lakeshore, and minimal compacted lawn and patio areas.

Outputs:

- implement at least 10 stormwater mitigation projects on Lake St Catherine shoreline properties

Outcomes:

- reduction of untreated stormwater entering Lake St Catherine
- increase in the number of native plants on the shoreline

Organization: Lake St. Catherine Association

Contact Person: Martha H. Pofit

Mailing Address: 1444 West Lake Rd.
Wells, Vermont 05774

Phone: (802) 345-3965

E-mail: martha.pofit@lakestcatherine.org

Website: https://lakestcatherine.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2020-007
GLFC 0100-328-002
Start Date:
Close Date:
Grant Amount: $19,920.00
Non-federal Match: $ 5,872.00
Total Amount: **$25,792.00**

2020 Local Implementation Grant — in progress

Lake Champlain Agrichemical and Fuel Storage

Project Summary

This project involves the design and implementation of fuel and agrichemical storage on farms in the New York portion of the Lake Champlain Watershed. This program will include education efforts on responsible and efficient agrichemical use and emphasis on nutrient management plan review and/or development. It is expected that at least three fuel storage areas or agrichemical storage facilities will be designed and constructed on at least three different farms in the Lake Champlain watershed. The outcome will be safer storage of fuel and agrichemicals including secondary containment and enclosed storage ensuring safety and spill prevention.

Outputs:

- three fuel storage areas or agrichemical storage facilities will be designed and constructed on at least three different farms

Outcomes:

- safer storage of fuel and agrichemicals including secondary containment and enclosed storage ensuring safety and spill prevention

Organization: Essex County SWCD

Contact Person: Alice Halloran

Mailing Address: PO Box 407
Westport, NY 12993

Phone: 518-962-8225

E-mail: ahalloran@westelcom.com

Website: http://www.essexcountyswcd.org/

Image of storage unit intended to install on farms in Essex County.

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-012
EPA 346-002-001
Start Date 3/26/2020
Close Date:
Grant Amount: $20,000.00
Non-federal Match: $ 1,380.00
Total Amount: **$21,380.00**

2020 Local Implementation Grant — in progress

Michelli Drive Dry Wells

Project Summary

The Lake George Association (LGA) will install three (3) dry wells along Michelli Road in Lake George. A stormwater study was completed by Chazen Engineering to identify ways to reduce the amount of stormwater that was coming from the Michelli Road area. The study identified 3 locations for the placement of dry wells in this small sub-watershed of Lake George. The Outputs of the project include the installation of the dry wells. The subsequent Outcomes of the project will reduce the amount of stormwater that is reaching Lake George as well as reducing the erosion that the stormwater is producing on its way to the Lake.

Outputs:

- installation of 3 dry wells

Outcomes:

- reduction of stormwater reaching Lake George
- reduction of erosion from stormwater

Organization: Lake George Association

Contact Person: Randy Rath

Mailing Address: PO Box 408
Lake George, NY 12845

Phone: 518-668-3558

E-mail: rrath@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

Image of a dry well getting installed on a previous Lake Champlain Basin Program funded project in the Town of Lake George. The Town of Lake George Highway Department installed the structure.

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-011
EPA 346-002-001
Start Date: 2/27/2020
Close Date:
Grant Amount: $13,000.00
Non-federal Match: $ 2,560.00
Total Amount: **$15,560.00**

2019 Local Implementation Grant — concluded

Missisquoi River's Highgate Falls Portage Trail Stormwater Management Project

Project Summary

Northern Forest Canoe Trail and partners completed a stormwater management, river access, and pedestrian trail improvement project along the Missisiquoi River in Highgate, Vermont. A critical linkage for the Northern Forest Canoe Trail – this 0.5 mile portage around the Highgate Dam on the Missisquoi River following an abandoned town road being redeveloped as a pedestrian recreation corridor – was repaired by replacing a failing culvert and installing multiple stormwater management practices. Previously the unmanaged stormwater runoff had created severe erosion, gullies, and wash outs, increasing deleterious discharges into the Missisquoi River and creating challenges for paddlers completing the carry. A Northern Forest Canoe Trail Summer Crew and a NorthWoods Stewardship Center Clean Water Crew helped implement the stormwater management projects over six days and the Town of Highgate led the replacement of the failing culvert.

Outputs:

- completed Archeological Resource Assessment report for the 0.5 mile section of Missisquoi river.
- installation of 14 stormwater management best management practices along a 0.5 mile section of trail including gabion mats, stone lined ditching, grass lined ditching, drainage dips, and trail resurfacing that reduced erosion and sediment from entering the Missisquoi River.

Outcomes:

- safer river access for canoe paddlers
- decreased sediment and erosion entering the Missisquoi River
- 1250 ft of trail network and road drainage improved
- increased partnership between existing groups working in the watershed focused on water quality and recreation

Organization: Northern Forest Canoe Trail

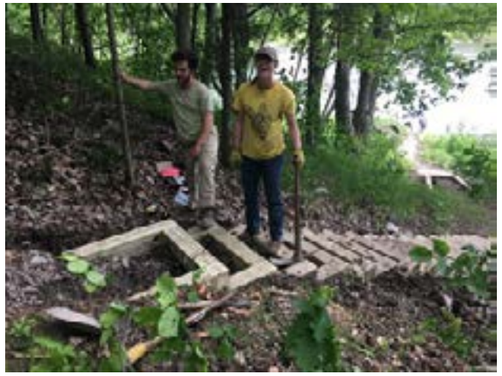
Contact Person: Noah Pollock

Mailing Address: PO Box 565
Waitsfield, VT 05673

Phone: 802-496-2298

E-mail: noah@northernforestcanoetrail.org

Website: www.northernforestcanoetrail.org



Lake Champlain Basin Program

NEIWPCC Code: LS-2019-068
EPA 0995-002-001
Start Date: 5/29/2019
Close Date: **11/7/2019**
Grant Amount: $19,938.00
Non-federal Match: $ 6,260.00
Total Amount: **$26,198.00**

2018 Local Implementation Grant — in progress

Montpelier High School Green Stormwater Design

Project Summary

This project provided funding for the development of a Stormwater Master Plan and three final designs for green stormwater infrastructure solutions on the Montpelier High School campus located next to the Winooski River in Montpelier Vermont. Friends of Winooski River contracted the engineering services to Milone & MacBroom, Inc who worked to develop the plan and designs with teacher, student, and stakeholder input. The project team selected a series of connected interventions that would address problems with stormwater management in the main parking area, and treat 47% of the water quality volume of the two major impervious watersheds on the campus. Once installed, these three GSI practices will help Montpelier High School comply with Vermont's new Three-Acre General Permit.

Outputs:

- stormwater Master Plan covering the 21.1 acre Montpelier High School Campus
- 19 stormwater alternatives evaluated
- three final designs created

Outcomes:

- increased preparedness and compliance of school grounds preparing for the enactment of the Vermont 3-acre general permit
- greater partnership and collaboration related to green stormwater infrastructure with abutting landowners
- implementation of the Montpelier Stormwater Master Plan
- student and teacher engagement

Organization: Friends of the Winoosk River

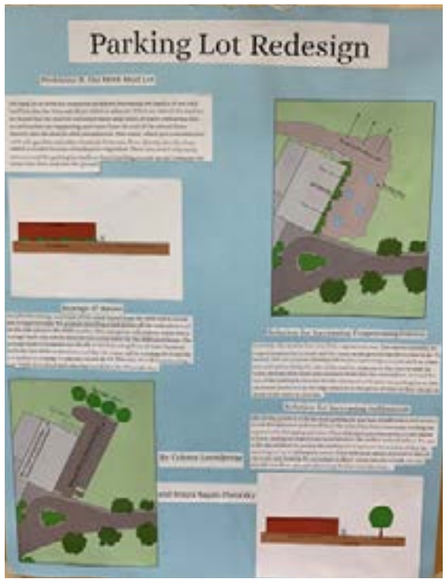
Contact Person: Michele Braun

Mailing Address: PO Box 777
Montpelier, VT 05602

Phone: 802-279-3771

E-mail: michele@winooskiriver.org

Website: winooskiriver.org



Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-003
EPA	0994-002-001
Start Date:	5/17/2018
Close Date:	**12/9/2019**
Grant Amount:	$24,424.00
Non-federal Match:	$ 1,011.14
Total Amount:	**$25,435.00**

2019 Local Implementation Grant — concluded

Montpelier Riparian Area Restoration: Invasive Removal and Erosion Prevention

Project Summary

An estimated 6-acres within the City of Montpelier's public park greenspace was improved through the efforts of park department staff, AmeriCorps members, and approximately 200 volunteers. LCBP funds covered the cost of purchasing the tools and native plants necessary to complete this water-quality centered work. Approximately 11,925 pounds of invasive species were removed, 1300 native trees and shrubs were planted, and 1-mile of trail network was improved through installing best management practices that reduce erosion.

Outputs:

- 1,000 hrs of AmeriCorps staff and volunteer time put into the project
- removal of an estimated 11,925 pounds of invasive plants from the City's parks
- 1300 native trees planted in the City's parks (600 of them funded by this LCBP grant)
- improvement of an estimated 6-acres of riparian park land
- replaced three culverts and fixed trail's waterbars and swales to improve 1-mile of trail.

Outcomes:

- improvement of trail network located within City's parks though the installation of practices that reduce trail erosion by diverting water off the trail into vegetated areas
- improvement of riparian habitat through the removal of invasive species and the planting of native trees and shrubs
- increase in public awareness of how invasive plant removal, tree planting, and trail work can enhance public greenspaces and protect water quality

Organization: Montpelier Parks and Trees

Contact Person: Jacqueline Huettenmoser

Mailing Address: 39 Main Street
Montpelier, VT 05602

Phone: 802-223-7335

E-mail: eco-americorps@montpelier-vt.org

Website: https://www.montpelier-vt.org/210/Parks-and-Trees

Lake Champlain Basin Program

NEIWPCC Code:	
EPA	0994-002-001
Start Date	5/21/2019
Close Date:	**3/2/2020**
Grant Amount:	$15,021.00
Non-federal Match:	$44,128.00
Total Amount:	**$59,149.00**

2020 Local Implementation Grant — in progress

Plattsburgh NY Illicit Discharge and Detection Elimination Study

Project Summary

This project team will perform a comprehensive assessment of dry-weather flows from all of the City of Plattsburgh's known separate storm drain outfalls. Recently completed stormwater infrastructure mapping will be used to guide the extent of this effort. Where monitoring indicates that contamination is present, the project team will perform advanced investigation (AI), including bracket sampling to identify specific segments of closed drainage systems where illicit discharges originate, and will work with the City to conduct tracing techniques. The contractor will work with the City and associated landowners to conduct tracing techniques such as dye or smoke testing. When sources of illicit discharges are identified, VTDEC and its hired contractor will assist the City in planning and implementing corrective measures.

Outputs:

- comprehensive assessment of dry-weather flows from all of City of Plattsburgh's known separate storm drain outfalls

Outcomes:

- planning and implemention of corrective measures to eliminate comtaminated discharges

Organization: City of Plattsburgh

Contact Person: Jonathan Ruff

Mailing Address: 41 City Hall Place
Plattsburgh, NY 12901

Phone: 518-726-6377

E-mail: RuffJ@cityofplattsburgh-ny.gov
Jim.Pease@vermont.gov

Website: http://www.cityofplattsburgh.com/198/Environmental-Services

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-028
EPA	346-002-001
Start Date:	**3/26/2020**
Close Date:	
Grant Amount:	$19,605.00
Non-federal Match:	$ 1,500.00
Total Amount:	**$21,105.00**

2019 Local Implementation Grant — concluded

Quaker Road MS4 Stormwater and Habitat Improvement Project

Project Summary

This project at Pine View Cemetery in Queensbury NY was designed to improve drainage, reduce both sediment and nutrient loadings from stormwater runoff transported along Quaker Road, and undertake a reduction of lawn maintenance activities at the cemetery. The final results were an improvement in water quality being conveyed to the Halfway Brook tributary and an expansion of wildlife habitat in this designated MS4 area. Two degraded and improperly installed culverts were replaced and the 840 ft channel was repaired in order to produce an efficient and non-impacting stormwater conveyance system. In addition a native species pollinator garden was constructed that not only improves the existing native habitat, but is also helping to phase out extensive mowing. The cemetery association and the Warren County Soil & Water Conservation District utilized volunteers to assist with the plantings and with the maintenance of the garden; they were an integral part of this project. The cemetery is an extremely popular location for individuals and groups to walk, so the educational opportunities have been enhanced as well.

Outputs:

- re-establishment of 840ft of stone lined ditching parallel to Quaker Road with the removal of accumulated sediments, hydro-seeding of exposed and damaged banks and routine planned maintenance.
- replacement of two failed culverts within the stone lined ditching parallel to Quaker Road
- establishment of a 1,000 square foot pollinator garden comprised of New York native plant species

Outcomes:

- reduction in sediment and nutrient loading entering the Halfway Brook tributary from stormwater runoff transported along Quaker Road
- expansion of wildlife habitat, reduction in lawn maintenance activities
- increase in community involvement through work days at the Pine View Cemetery

Organization: Warren County Soil & Water Conservation District

Contact Person: Robert Bombard

Mailing Address: 394 Schroon River Road
Warrensburg, New York 12885

Phone: 518.623.3119

E-mail: rbombard123@nycap.rr.com

Website: www.warrenswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-056
EPA	0994-002-001
Start Date	5/21/2019
Close Date:	**12/24/2019**
Grant Amount:	$19,995.00
Non-federal Match:	$ 2,200.00
Total Amount:	**$22,195.00**

2019 Local Implementation Grant — in progress

Rain Garden and Bioretention Practice at VSECU

Project Summary

This project envisioned a 420 square foot rain garden with bioretention media underneath, surrounding a catch basin adjacent to a section of VSECU's paved parking area and drive-through bays. This practice will capture and infiltrate stormwater runoff from impervious surfaces such as driveways. Project output will be a rain garden and bioretention practice adjacent to the Winooski River, along with the design, photographs, reports, articles and a press release to be delivered to LCBP. Anticipated project outcomes are better water quality through reduction of stormwater flow and contaminants into the river from impervious surfaces, inclusion of students and community volunteers in construction of a stormwater management practice, improved community awareness of the need and means for mitigating stormwater effects, a template for future collaborations between the Montpelier Conservation Commission and private landowners, and a visible and accessible site for raising community awareness around stormwater issues.

Outputs:

- 420 sq ft rain garden with a bioretention practice adjacent to the Winooski River
- template for future collaborations between the Montpelier Conservation Commission and private landowners
- visible and accessible site for raising community awareness around stormwater issues.

Outcomes:

- sediment and associated pollutants filtered from the runoff, improving water quality in the Winooski River
- inclusion of students and community volunteers in construction of a stormwater management practice
- improved community awareness of the need and means for mitigating stormwater effects

Organization: Montpelier Conservation Commission

Contact Person: Page Guertin

Mailing Address: 459 North St.
Montpelier, VT 05602

Phone: (802) 461-7949

E-mail: pguertin@myfairpoint.net

Website: https://www.montpelier-vt.org/398/Conservation-Commission

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-048
GLFC	0100-323-002
Start Date:	5/30/2019
Close Date:	**7/3/2020**
Grant Amount:	$14,708.00
Non-federal Match:	$ 1,581.00
Total Amount:	**$16,289.00**

2020 Local Implementation Grant — in progress

Riparian buffer establishment under difficult site conditions using various management techniques

Project Summary

Due to significant methods revisions based on requested consultation with Pete Emerson and with study partners and others commonly engaged in riparian restoration in Vermont (e.g., Vermont Fish and Wildlife Department, Vermont Audubon, US Fish and Wildlife, Vermont Department of Environmental Conservation), eight study sites will be determined in partnership with Vermont Fish and Wildlife Department as a newly added task in this work plan. To identify the 8 sights, initially, the population of reed canary grass riparian stands in Vermont Fish and Wildlife Department Wildlife Management Areas within the Champlain Valley that are not subject to ice scour, that are designated as clayplain forest natural communities, and that allow for tiller access for site preparation will be identified. From those, eight sites will be randomly selected at which to implement this research. A complete suite of photos and site descriptions will be shared as a deliverable to LCBP during the project period.

From our original proposal, one of the eight study sites may be on the Lemon Fair Wildlife Management Area in the town of Cornwall, VT, in the Otter Creek subwatershed. The access and parking for the property is located on Snake Mountain Rd., Northwest of the site.

Outputs:

- 8 study sites determined to implement research

Outcomes:

- riparian buffer establishment

Organization: UVM Extension

Contact Person: Katherine Forrer

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Berlin, VT 05641

Phone: 802-476-2003

E-mail: katherine.forrer@uvm.edu

Website:

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-024
GLFC	0100-328-002
Start Date	4/17/2020
Close Date:	
Grant Amount:	$19,995.00
Non-federal Match:	
Total Amount:	**$19,995.00**

2019 Local Implementation Grant — concluded

2019 Riparian Forest Stewardship and Enhancement

Project Summary

The Intervale Center worked closely with partners at U.S. Fish and Wildlife Service (USFWS) to complete stewardship on 13 riparian forest restoration sites in the Lamoille and Winooski watersheds totaling close to 35 acres. After prioritizing sites using established criteria that consider need and accessibility, the Intervale Center hired a crew and performed maintenance over five months, from May to September. Crew members cleared vegetation that competes with young trees, removed vines and plastics, controlled invasive species, pruned trees and shrubs, and established site preparation for the next season. The ultimate goal of the Intervale Center is that existing funding mechanisms for tree planting projects in Vermont will start incorporating monitoring and site maintenance in the overall tree planting budget. Until then, grant funded projects like this are critical to bridge the gap, demonstrating how this work can be done and how much it costs while also improving restoration success.

Outputs:

- riparian forest restoration stewardship on 13 sites, totaling 35 acres within the Lamoille and Winooski watersheds in Vermont
- creation of an adaptive management plan that contains strategies that can serve as best practices for riparian forest restoration projects for other partners starting to engage in stewardship work.
- completion of end-of-season monitoring where needed with incorporation of results into stewardship planning for the 2020 growing season.

Outcomes:

- stewardship and maintenance to tree planting projects funded by other federal, state, and local watershed partners.
- protection of the large conservation investments made across the state to restore riparian forest areas.
- increased collaboration with partners, including USFWS, CREP staff, and local watershed groups.

Organization: Intervale Center
Contact Person: Mandy Fischer
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E-mail: mandy@intervale.org
Website: www.intervale.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-059
EPA 0995-002-001
Start Date 5/29/2019
Close Date: **1/10/2020**
Grant Amount: $19,666.00
Non-federal Match:
Total Amount: **$19,666.00**

2020 Local Implementation Grant — in progress

2020 Riparian Forest Stewardship and Enhancement

Project Summary

The Intervale Center will continue our work completing stewardship and enhancement on an additional 30 acres of riparian forest buffers in the Otter Creek, Winooski, Lamoille, and/or Missisquoi watersheds of Vermont. Funding will result in maps and stewardship plans for each site, completion of work documents by photographs, and ongoing stewardship plans for sites after the 2020 season.

Outputs:

- stewardship and enhancement on 30 acres of riparian forest buffers

Outcomes:

- stewardship and maintenance to tree planting projects funded by other federal, state, and local watershed partners.
- protection of the large conservation investments made across the state to restore riparian forest areas
- increased collaboration with partners, including USFWS, CREP staff, and local watershed groups.

Organization: Intervale Center
Contact Person: Mandy Fischer
Mailing Address: 180 Intervale Road, Burlington, VT 05401
Phone: 802-660-0440 x 108
E-mail: mandy@intervale.org
Website: www.intervale.org

Two important tasks we will perform are clearing competing vegetation from around trees and removing plastic tree tubes

Lake Champlain Basin Program

NEIWPCC Code: L-2020-009
GLFC 0100-328-002
Start Date 2/19/2020
Close Date:
Grant Amount: $19,984.00
Non-federal Match:
Total Amount: **$19,984.00**

2019 Local Implementation Grant — concluded

Road Salt Reduction Program

Project Summary

ADK Action, The Mirror Lake Watershed Association, and The Fund for Lake George have worked tirelessly to develop a series of Best Practices to reduce road salt throughout the Adirondack Park. The Town of Keene responded to the call to action beginning with the signing of the "The Pledge to Reduce Road Salt" Memorandum of Understanding. Keene previously adopted some of the recommended practices such as using treated salt (which works better at lower temps), using a mix of sand and salt and phasing in the upcoming construction of a new environmentally sound salt storage shed. Accurate measurement of product used, application rate control and equipment calibration are on the list of best practices. Through the Pollution Prevention grant award, the Town of Keene Highway Department was able to take the next step by purchasing and installing a Dickey-john material application controller on one of the town trucks. Using the computer and the calibration system, the Highway Supervisor was able to accurately track and record the amount of product used per lane mile. Prior to using this type of system, this would have been left to a rough estimate. Establishing, accurate application amounts will help in purchasing for the next season. Calibration and computer controls allowed for a more consistent application of sand/salt mix and therefore, reducing the amount of salt applied and thus entering the watershed.

Outputs:

- installation of the Dickey-john material application controller on 1 plow truck
- training for the highway employees in using this equipment
- collection of application rates data.

Outcomes:

- reduction of road salt in waterways will improve water quality and aquatic species habitat

Organization: Town of Keene Municipal Government

Contact Person: Teresa Cheetham-Palen

Mailing Address: P.O. Box 89
Keene, NY 12942

Phone: 845-242-1667

E-mail: teresap0200@gmail.com

Website: www.townofkeeneny.com

Lake Champlain Basin Program

NEIWPCC Code:	PO 12495
GLFC	0100-323-002
Start Date	5/17/2019
Close Date:	**7/29/2020**
Grant Amount:	$7,316.00
Non-federal Match:	$1,193.00
Total Amount:	**$8,509.00**

2019 Local Implementation Grant — in progress

Shelburne Community School Stormwater Retention and Control of Flowering Rush in Town Farm Bay

Project Summary

Lewis Creek Association proposes a study to determine best management practices to control populations of flowering rush (*Butomus umbellatus*), at the recommendation of experts at VT DEC. They will begin by surveying and mapping flowering rush occurrence in Town Farm Bay (Charlotte/Ferrisburgh), then develop test plots to compare chemical and physical removal methods, and will analyze the effects of treatments during the second year's field season. Future years of this project will result in a final report that clarifies the best management practice(s) for this exotic/invasive, and determine if it is feasible to include management of this species in the association's long-term stewardship of this area, and possibly to expand management to the LaPlatte River area (Shelburne Bay).

Outputs:

- map of distribution of flowering rush
- data documenting changes in plant communities
- press release.

Outcomes:

- reduced flowering rush populations and increased public knowledge of this aquatic invasive species.

Organization: Lewis Creek Association

Contact Person: Kate Kelly

Mailing Address: PO Box 313
Charlotte, VT 05445

Phone: 802) 488-520

E-mail: lewiscreekorg@gmail.com

Website: http://www.lewiscreek.org/

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-074
GLFC	0100-323-002
Start Date:	5/29/2019
Close Date:	
Grant Amount:	$3,545.00
Non-federal Match:	$1,050.00
Total Amount:	**$4,595.00**

2019 Local Implementation Grant — in progress

The Mad River Watershed Addreses Stormwater Pollution with Collective Landowner Action

Project Summary

Friends of the Mad River (FMR) will expand its existing *Storm Smart* program to address the challenging, cumulative nature of stormwater runoff in the Mad River Watershed's steep and sensitive residential areas. *Storm Smart* guides property owners in the identification, prioritization, and implementation of mitigation practices that reduce the negative impacts of stormwater runoff. *Storm Smart* aims to slow runoff down, spread it across the landscape, and sink it into the ground where it lands before it can cause erosion, degrade water quality, destroy sensitive habitat, and accumulate in volume.

Outputs:

- 30 property assessments
- a list of prioritized implementation sites
- mitigation implemented at 15 priority sites
- a suite of additional "shovel ready" projects
- 5 public demonstration sites

Outcomes:

- cleaner water and improved flood resilience
- an expanded community of informed and engaged landowners.

Organization: Friends of the Mad River (FMR)

Contact Person: Corrie Miller

Mailing Address: PO Box 255
Waitsfield, VT 05673

Phone: (802) 496-9127

E-mail: corrie@friendsofthemadriver.org

Website: www.friendsofthemadriver.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-072
EPA	0995-002-001
Start Date:	5/23/2019
Close Date:	
Grant Amount:	$19,984.00
Non-federal Match:	$ 9,506.00
Total Amount:	**$29,490.00**

2020 Local Implementation Grant — in progress

Town of Peru Pollution reduction measures in Lake Champlain

Project Summary

This project will purchase phosphorus removal equipment for the Peru Wastewater treatment plant and reduce chlorine concentration in Valcour Wastewater effluent by purchasing dechlorination equipment and installing flow monitoring equipment to optimize chlorination dosing rates.

Outputs:

- purchase phosphorus removal and dechlorination equipment
- installation of flow monitoring equipment

Outcomes:

- reduction of chlorine concentration in Valcour Wastewater effluent

Organization: Town of Peru

Contact Person: Courtney Tetrault

Mailing Address: 10 Cross Street
Peru NY 12972

Phone: 518-643-8125

E-mail: peruwts@perutown.com

Website: http://www.perutown.com/

Lake Champlain Basin Program

NEIWPCC Code:	PO 100057
GLFC	0100-328-002
Start Date	2/20/2020
Close Date:	
Grant Amount:	$20,000.00
Non-federal Match:	$ 3,515.00
Total Amount:	**$23,515.00**

2020 Local Implementation Grant — in progress

Town of Whitehall Highway Garage Stormwater Control Project

Project Summary

The Town of Whitehall will implement a stormwater collection and infiltration project at the highway garage complex to capture sediment and road salt-laden stormwater runoff that comes from the surrounding watershed. This will be accomplished through the creation of a vegetated depression and installation of two catch basins. The major output of this project is the implementation of a stormwater reduction project. The outcome will be the reduction of phosphorus, sediment and other pollutant loading directly into Mud Creek, a tributary of the Champlain Canal. Utilizing the NYS DEC's Pollutant Load Reduction Calculator, it is estimated that this project will result in a pollutant load reduction of 0.53 pounds of phosphorus/acre/year and 1.79 pounds of nitrogen/acre/year.

Outputs:

- implementation of a stormwater reduction project

Outcomes:

- reduction of phosphorus, sediment and other pollutants loading directly into Mud Creek

Organization: Town of Whitehall / Lake Champlain – Lake George Regional Planning Board

Contact Person: Beth Gilles

Mailing Address: PO Box 765
Lake George, NY 12845

Phone: (518) 668-5773

E-mail: Beth.gilles@lclgrpb.org

Website: www.lclgrpb.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 100062
EPA	346-002-001
Start Date:	2/26/2020
Close Date:	
Grant Amount:	$15,000.00
Non-federal Match:	
Total Amount:	**$15,000.00**

2019 Local Implementation Grant — concluded

Trout and Missisquoi River Riparian Buffers

Project Summary

MRBA worked with a Vermont Youth Conservation Corps (VYCC) Crew to plant a total of 2 acres of native trees in three different locations along the banks of the Missisquoi River in North Troy, VT.

Outputs:

- completion of pre-assessments and planting plans of the proposed planting sites with landowners
- 600 trees (2 acres) of riparian buffer planted in three locations along the Missisquoi River in North Troy, VT.

Outcomes:

- 2 acres of riparian buffer planted along the Missisquoi River
- improvement of bank stabilization, reduction of runoff and erosion, management of invasive species that helps natural communities thrive.

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: mrba@pshift.com

Website: https://www.mrbavt.com/

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-077
GLFC	0100-323-002
Start Date:	7/8/2019
Close Date:	**1/3/2020**
Grant Amount:	$12,353.00
Non-federal Match:	$ 2,840.00
Total Amount:	**$15,193.00**

2020 Local Implementation Grant — in progress

Warren County Habitat Improvement Project

Project Summary

The Lake Champlain Basin in Warren County is made up of two sub watersheds – Lake George and Halfway Brook. This project proposes to address habitat improvement efforts in both by installing instream habitat improvement structures in Halfway Brook, addressing an area of Eurasian watermilfoil (EWM) and curly leaf pondweed (CLP) in Halfway Brook, installing pollinator gardens with native plant species at several places along the county bike path, improving bird and amphibian habitats in several park/trail wetlands and associated lands through the placement of habitat structures and installing artificial floating wetlands to provide water quality improvements in several waters that may include West Brook Conservation Ponds (Lake George), Dula Pond (Bolton), Hovey and Gurney Lane Ponds (Queensbury) and Crandall Pond (Glens Falls).

Outputs:

- develop habitat project plans
- install habitat projects
- removal of invasives

Outcomes:

- habitat and water quality improvement

Organization: Warren County SWCD

Contact Person: Robert Bombard

Mailing Address: 394 Schroon River Road
Warrensburg, NY 12885

Phone: 518.623.3119

E-mail: rbombard123@nycap.rr.com

Website: www.warrenswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-015
EPA	346-002-001
Start Date:	2/27/2020
Close Date:	
Grant Amount:	$20,000.00
Non-federal Match:	$ 2,200.00
Total Amount:	**$22,200.00**

2020 Local Implementation Grant — in progress

Zebra Mussel Impact on Native Freshwater Mussel Communities in Lake Champlain

Project Summary

Freshwater mussels are the most imperiled taxa in the Lake Champlain Basin. While zebra mussels seriously threaten native freshwater mussel populations in the southern lake, their impact on populations in the northern lake is unclear. The goals of this project are to determine the impacts of zebra mussels on the freshwater mussel populations in the Northeast Arm of Lake Champlain and to locate any refugia populations which exhibit minimal impacts. Working closely with personnel at the Vermont Agency of Natural Resources this will be accomplished by 1) identifying and mapping potential native mussel beds and 2) sampling freshwater mussels in a subset of these beds to assess the impact of zebra mussels. This project is the first step in the conservation process to ensure that this critical element of the lake's biodiversity remains intact.

Outputs:

- identifying and mapping potential native mussel beds
- Conduct field inventory of mussel populations and assess zebra mussel impacts

Outcomes:

- conservation of lake Champlain biodiversity

Organization: Lake Champlain Committee

Contact Person: Lori Fisher

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Building 3, Studio 3F
Burlington, Vermont 05401

Phone: 802-658-1421

E-mail: lorif@lakechamplaincommittee.org

Website: www.lakechamplaincommittee.org

Photo by LCC Director of Science & Water Programs, Lauren Sopher. © Lake Champlain Committee. Measuring the length of the native freshwater mussel species Eastern Elliptio (Elliptio complanata) on the Poultney River.

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-041
GLFC	0100-328-002
Start Date:	4/7/2020
Close Date:	
Grant Amount:	$20,000.00
Non-federal Match:	$ 5,800.00
Total Amount:	**$25,800.00**

2019 Program Grant — in progress

2019 Clinton County SWCD Ag BMP Implementation

Project Summary

Three projects will be implemented on New York farms to improve water quality in the Lake Champlain Basin:

Project #1 is the development of a comprehensive nutrient management plan (CNMP) for a small dairy farm in northern Clinton County. The District will gather information and contract with a certified planner to produce a plan that can be used to help the farm apply for funding to implement recommended practices.

Project #2 is the implementation of cropland conversion to perennial forage on a beef cattle farm along the Great Chazy River in Mooers. A forage planting will be implanted using the District's No-Till Drill to permanently remove this cropland from annual corn production.

Project #3 is the implementation of clean water exclusion practices that have been designed for a dairy farm in Peru as part of a larger project. The practices will be designed and implemented with engineering oversight and certified as-builts will be required.

Outputs:

- development of a comprehensive nutrient management plan
- implementation of cropland conversion to perennial forage
- implementation of clean water exclusion practices

Outcomes:

- improve water quality in the Lake Champlain Basin

Organization: Clinton County SWCD

Contact Person: Peter Hagar

Mailing Address: 6064 Route 22, Suite 1
Plattsburgh, NY 12901

Phone: 518-561-4616 ext 3

E-mail: peter.hagar@ccsoil-water.com

Website: http://clintoncountyswcd.org/

150 cow dairy in need of nutrient management planning in Ellenburg, NY

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-076
EPA 0994-002-005
Start Date: 6/7/2019
Close Date:
Grant Amount: $13,342.00
Non-federal Match: $ 2,772.00
Total Amount: **$16,114.00**

2019 Program Grant — concluded

Basin-Wide Implementation of a Farm Phosphorus Management to Reduce P Loading and Improve Farm Viability

Project Summary

The Farm-P REduction Planner (Farm-PREP), a tool designed to identify farm management practices that meet P-loss reduction and water quality targets, will be expanded to support use and implementation through the Vermont portion of the Lake Champlain Basin. The project has been designed to ensure successful implementation of the tool across the state of Vermont through increasing stakeholder confidence and acceptance, creating a knowledgeable user community, and making a commitment to continued technical support of the application through 2022. Increasing stakeholder confidence will be accomplished through broader engagement of the targeted users (technical farm consultants) based on testing and evaluation on multiple farms spread across the Vermont portion of the Lake Champlain Basin.

Outputs:

- A database that supports APEX farm simulations across the Lake Champlain Basin
- Summary of stakeholder feedback and recommendations
- Updated Farm-PREP web-based tool
- Summary of model simulation results and updates to model that address issues
- Training workshop materials
- Completed three 1-day workshops
- Farm-PREP hosted on internet servers
- Final report that summarizes the updated Farm-PREP tool, project data, model evaluation, and training activities

Outcomes:

- Agricultural managers in the Vermont portion of the Lake Champlain Basin are better able to plan and implement best management practices that will achieve reductions required by the Lake Champlain TMDL for phosphorus.

Organization: Stone Environmental, Inc

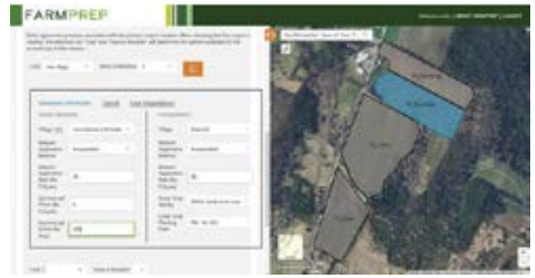
Contact Person: Michael Winchell

Mailing Address: 535 Stone Cutters Way
Montpelier, VT05602

Phone: 802-229-1882

E-mail: mwinchell@stone-env.com

Website: www.stone-env.com



Lake Champlain Basin Program

NEIWPCC Code: L-2018-019
EPA 0995-002-001
Start Date: 2/20/2019
Close Date: **7/7/2020**
Grant Amount: $157,334.00
Non-federal Match:
Total Amount: **$157,334.00**

2020 Program Grants — in progress

CWICNY Corn Planter Retrofit Project

Project Summary

The members of the Champlain Watershed Improvement Coalition of New York (CWICNY) will identify, recruit, rank and work with farms on the NY side of the Lake Champlain Watershed to retrofit 7 (seven) conventional corn planters to allow for no-till planting. Reduced tillage is a practice that shows proven results. NRCS Practice 329- "Residue and Tillage Management, No-Till" has been shown to effectively reduce nutrient and sediment pollution to waterways. Farmers will be offered a cost share incentive to purchase and install the components necessary to retrofit their conventional planter. The project will also provide guidance and technical assistance to farms in choosing the most appropriate and cost-effective components.

Outputs:

- list of eligible farms and rankings
- provide farms with technical guidance
- Purchase and install no-till retrofit equipment
- Plant corn using NRCS standard 329

Outcomes:

- reduction of nutrient and sediment pollution to waterways

Organization: CWICNY

Contact Person: Peter Hagar

Mailing Address: c/o Clinton County Soil & Water Conservation District
6064 Route 22, Suite 1
Plattsburgh NY 12901

Phone: 518-561-4616 ext 3532

E-mail: Peter.hagar@ccsoil-water.com

Website:

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-042
EPA	0346-002-003
Start Date:	
Close Date:	
Grant Amount:	$50,000.00
Non-federal Match:	$ 2,500.00
Total Amount:	**$52,500.00**

2019 Program Grant — in progress

Dam Removal in the Lake Champlain Basin

Project Summary

This project will restore aquatic habitat, river and stream connectivity and riverine processes by removing dams no longer serving a useful purpose. Based in-part on an ecological impact analysis by The Nature Conservancy of all dams in the Lake Champlain Basin, four dams have been selected: Mill Pond Dam in Colchester, Camp Wihakowi and Cross Brothers dams in Northfield, and Pelletier Dam in Castleton.

Outputs:

- advance engineering or actual removal of all four dams

Outcomes:

- restore aquatic habitat, river and stream connectivity and riverine processes

Organization: Vermont Natural Resources Council

Contact Person: Stephanie Mueller

Mailing Address: 9 Bailey Avenue
Montpelier, VT 05602

Phone: 802.223.2328 x113

E-mail: smueller@vnrc.org

Website: vnrc.org

Mill Pond Dam

Camp Wihakowi Dam

Cross Brothers Dam

Pelletier Dam

Lake Champlain Basin Program

NEIWPCC Code:	L-2018-018
GLFC	0100-323-002
Start Date:	1/4/2019
Close Date:	
Grant Amount:	$210,700.00
Non-federal Match:	$ 80,360.00
Total Amount:	**$291,060.00**

2019 Program Grant

in progress

Evaluating Floodplain Potential for Sediment and Nutrient Retention

Project Summary

To effectively guide restoration and conservation practices in the Lake Champlain Basin, this project maps floodplains and quantifies their functioning, including the retention and removal of sediment and nutrients, from existing datasets and select field measurements. Relationships between environmental variables and the measured (i.e., existing) floodplain function will be identified, and the discrepancy between the potential (under ideal geomorphic and ecologic conditions) and existing functioning will be evaluated. Existing and potential floodplain functions will be derived for river corridors in the Lake Champlain Basin where appropriate data exists and made available to the public in the format of GIS layers. The final report will describe how this information may be used to quantitatively evaluate floodplain management decisions.

Outputs:

- development of a framework to assist in Lake Champlain Basin planning

Outcomes:

- improved water quality
- enhanced flood resiliency.

Organization: University of Vermont

Contact Person: Beverley Wemple

Mailing Address: 200 Old Mill
Burlington, VT 05405

Phone: 802-656-2063

E-mail: Beverley.Wemple@uvm.edu

Website: https://www.uvm.edu/~geograph

Lake Champlain Basin Program

NEIWPCC Code: L-2018-017
GLFC 0100-323-002
Start Date: 1/16/2019
Close Date:
Grant Amount: $168,076.00
Non-federal Match: $120,629.00
Total Amount: **$288,704.00**

2020 Program Grants

in progress

Evaluating Performance of Media Filters to Remove Phosphorus in Stormwater Pond Outflow

Project Summary

Stone Environmental, Inc. (Stone) will work in consultation with the Lake Champlain Basin Program (LCBP) to evaluate four media filters to remove phosphorus (P) from the outflow of a municipal stormwater pond in South Burlington, Vermont. Stone will identify and demonstrate a cost-effective strategy for reducing P loading to Lake Champlain (*Opportunities for Action*, Task 1.A.1.c).

Implementation of media filters to enhance P removal at existing stormwater ponds would reduce P loading to the receiving water. A successful demonstration of this practice would encourage and inform the development of additional media filter retrofits to stormwater ponds in the Lake Champlain Basin. The City of South Burlington will support Stone in identifying a suitable stormwater pond for treatment, securing access, overseeing construction, and assisting with maintenance of the phosphorus filtration systems. In collaboration with the City and Vermont DEC, Stone will ensure that the results provided by this study are suitable for establishing P removal credits for filter retrofit practices. Establishing a transparent P crediting approach will ensure that MS4s and other potential permittees in the Lake Champlain Basin have an incentive to apply this retrofit practice.

Outputs:

- identification and evaluation of three stormwater ponds. One of the three ponds will be selected for installation of the P filters, based on the dissolved P concentrations measured at the outlet.

- final engineering design plans for the pilot stormwater pond P filters, for use as a basis for designing similar P filter retrofits for existing stormwater ponds throughout the Lake Champlain Basin

Outcomes:

- reduction of phosphorus loading to Lake Champlain

Organization: Stone Environmental

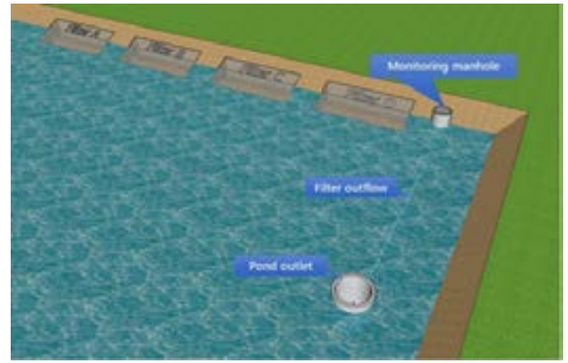
Contact Person: Dave Braun

Mailing Address: 535 Stone Cutters Way
Montpelier, Vermont 05602

Phone: (802) 272-8819

E-mail: dbraun@stone-env.com

Website: http://www.stone-env.com/



Lake Champlain Basin Program

NEIWPCC Code: L-2019-105
GLFC 0100-328-002
Start Date: 4/10/2020
Close Date:
Grant Amount: $100,000.00
Non-federal Match: $ 2,700.00
Total Amount: **$102,700.00**

2020 Program Grants

in progress

Forage fish community monitoring in Lake Champlain

Project Summary

The overarching goal of this project is to design and initiate a prey fish community survey in Lake Champlain that will allow assessment of changes in coldwater prey fish communities (abundance, condition, length/age structure), monitor year class abundance of wild lake trout recruits, and inform management decisions.

Outputs:

- meetings with biologists from Vermont, New York, and Wisconsin to integrate elements of the VTDFW survey (1982-2015) and prey fish surveys conducted in lakes Ontario and Superior into design of a fish community monitoring survey plan for Lake Champlain
- field sampling to evaluate the abundance and condition of alewife and rainbow smelt in 2020 and 2021 relative to years prior to recruitment of wild lake trout
- a forage fish community monitoring plan with a standard operating procedure.

Outcomes:

- implementation of a long-term prey fish community survey
- annual prey fish community data to inform fisheries management decisions
- presentations to inform the public about the status of harvested fish populations in the lake (rainbow smelt, lake trout).

Organization: UVM

Contact Person: J. Ellen Marsden

Mailing Address: 81 Carrigan Drive, Aiken Center
Burlington VT 05405

Phone: 802-656-0684

E-mail: ellen.marsden@uvm.edu

Website:

University of Vermont faculty and graduate student sort catch of forage fishes from a bottom trawl as part of a juvenile lake trout survey. Credit: Hannah Lachance, UVM

Lake Champlain Basin Program

NEIWPCC Code: L-2019-104
GLFC 0100-328-003
Start Date: 3/9/2020
Close Date:
Grant Amount: $238,822.00
Non-federal Match: $127,387.00
Total Amount: **$366,209.00**

2020 Program Grants

in progress

Identifying and Fixing Erosion Issues on Private and Park Roads in the Lake Carmi Watershed

Project Summary

The Northwest Regional Planning Commission (NRPC) will complete a road erosion inventory (REI) on all hydrologically-connected segments on private roads, park roads and driveways within the Lake Carmi Watershed. NRPC will prioritize roads segments for phosphorus best management practices implementation projects based on the potential for reducing phosphorus loading using Vermont Department of Environmental Conservation's (VTDEC) default methodology. In partnership with the Friends of Northern Lake Champlain (FNLC), NRPC will further prioritize road segments for project implementation based on landowner willingness, likelihood of long-term success and cost effectiveness. Two to five projects will be selected for construction. Outreach to property owners and camp owners will include workshops and 1-on-1 coordination.

Outputs:

- road erosion inventory
- 2-5 phosphorus best management practices projects implemented
- workshops outreach

Outcomes:

- phosphorus reduction

Organization: NWRPC

Contact Person: Linda Blasch

Mailing Address: 75 Fairfield Street
St. Albans, VT 05478

Phone: 802-524-5958

E-mail: lblasch@nrpcvt.com

Website: www.nrpcvt.com

The photo below shows an example of a Best Management Practice (BMP) installed on a municipal road through the Municipal Roads Grants-In-Aid program. This type of BMP may be installed as part of the work plan for this grant project.

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-056
EPA 0346-002-001
Start Date: 5/7/2020
Close Date:
Grant Amount: $100,000.00
Non-federal Match:
Total Amount: **$100,000.00**

2019 Program Grant

in progress

Implementation of Whole Farm Nutrient Management to Reduce P Loading and Improve Farm Vialbility

Project Summary

This project will demonstrate how, through whole farm nutrient management, major improvements can be made to water quality through reduced phosphorus loading and improved farm viability. Through this project the team will work closely with five farms located in critical sources areas to build a program that implements comprehensive P management strategies on a whole farm level. The process will document the financial costs and savings as well as P reductions associated with the implemented strategies to demonstrate the effectiveness of this method for reducing P loading while supporting farm viability. Mass nutrient balancing, precision feed strategies, improvements in cropping systems and nutrient utilization will happen on a continual basis to monitor changes in the target variables such as ration P levels, fecal P levels, herd health, soil health, soil test nutrient levels, financial statements, milk quality and quantity. The tools being implemented will provide a baseline from which the team will be able to document changes in P losses and load on the farm. Data will be presented to farmers and partners in reports, outreach efforts, and as policy recommendations.

Outputs:

- working with five farms and collaborators to implement comprehensive P management strategies on a whole farm level
- documenting of financial costs and savings as well as P reductions associated with the implemented strategies to demonstrate the effectiveness of this method for reducing P loading while supporting farm viability.

Outcomes:

- reduction of nutrient loading in the Lake Champlain Basin

Organization: University of Vermont and State Agricultural College

Contact Person: Dr. Heather Darby

Mailing Address: 278 S. Main Street
St. Albans, VT 05478

Phone: (802) 524-6501

E-mail: heather.darby@uvm.edu

Website: http://www.uvm.edu/extension/cropsoil/

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-008
EPA 0995-002-001
Start Date: 8/19/2019
Close Date:
Grant Amount: $157,075.00
Non-federal Match:
Total Amount: $157,075.00

2020 Program Grants

in progress

ITRC Harmful Cyanobacterial Blooms (HCBs) Team

Project Summary

The purpose of the HCBs Team is to provide States with the information and tools needed to improve their ability to prevent and manage HCBs in the short term. This Team proposes to create a portfolio of viable prevention and management approaches, including strategies that can be implemented over time scales as short as one season. The Team will develop a technical-regulatory guidance document, as well as various fact sheets and training material as a comprehensive resource for the prevention and management of HCBs. The Team expects to complete the work within two years. The funds from this grant will be used to travel LCBP team members to ITRC and other outreach meetings to provide input on issues facing the LCBP region. Funds will also be used to develop a fact sheet and present a short course that presents possible solutions to issues facing the LCBP region.

Outputs:

- prepare the guidance document, training materials and evaluation tool
- present a short course in the Lake Champlain area based on the guidance published

Outcomes:

- reducing the number of beach closures attributed to cyanobacteria and the area of the lake affected by blooms

Organization: Environmental Research Institute of the States / Interstate Technology and Regulatory Council

Contact Person: Patricia C. Reyes

Mailing Address: 1250 H Street, NW, Suite 850
Washington, DC 20005

Phone: 202-266-4933

E-mail: preyes@ecos.org

Website: www.itrcweb.org

Lake Champlain Basin Program

NEIWPCC Code: L-2019-083
GLFC 0100-323-002
Start Date: 7/8/2019
Close Date:
Grant Amount: $10,000.00
Non-federal Match:
Total Amount: **$10,000.00**

2020 Program Grants — in progress

Lake Champlain Basin Dam Removal

Project Summary

This project continues VNRC's work to restore aquatic habitat, river and stream connectivity and riverine processes by removing dams that no longer serve a useful purpose. This project targets four dams. Three were identified in the 2018 LCBP-funded project: Camp Wihakowi and Cross Brothers in Northfield and Pelletier in Castleton. A new dam, Johnsons Mill in Bakersfield, is added with this project. LCBP funds will be used for feasibility, design and permitting.

Outputs:

- dam removal and channel restoration
- design and revegetation plans

Outcomes:

- raise awareness of the impact of dams on river connectivity, aquatic organism passage, water quality, public safety, flood resilience and economics

Organization: VT Natural Resource Council

Contact Person: Stephanie Mueller

Mailing Address: 9 Bailey Avenue
Montpelier, VT 05602

Phone: 802.223.2328 x113

E-mail: smueller@vnrc.org

Website: vnrc.org

From top left clockwise: Pelletier Dam, Camp Wihakowi Dam, Johnson's Mill Dam, Cross Brothers Dam

NEIWPCC Code: L-2020-001
GLFC 0100-328-003
Start Date: 4/10/2020
Close Date:
Grant Amount: $275,000.00
Non-federal Match: $285,900.00
Total Amount: **$560,900.00**

2019 Program Grant — concluded

Lake Champlain Committee Volunteer Coordination and Training for the Lake Champlain Cyanobacteria Monitoring Program

Project Summary

This project covers the Lake Champlain Committee's (LCC) portion of the on-going Lake Champlain cyanobacteria monitoring program for the period between January 2019 and December 31, 2019, and focuses on program development and revisions, recruitment, training, and oversight of volunteer monitors. Possible program revisions include updating training and outreach materials with additional cyanobacteria identification information, and references to new research on public health impacts and New York State's harmful algal bloom (HAB) initiative. LCC will refine our cyanobacteria monitoring tools, coordinate with partners on a 2019 monitoring schedule and program, and recruit, coordinate, train, oversee and support volunteers, as well as provide quality control of monitor data entered to the Vermont Department of Health database. All aspects of LCC's volunteer monitoring program are coordinated with and supplement monitoring conducted by the Vermont Department of Environmental Conservation (VT DEC) and the Vermont Department of Health (VDH). We will also coordinate with New York Department of Environmental Conservation (NY DEC) and key personnel involved with the Lake Champlain Harmful Algal Bloom (HAB) effort initiated in 2018.

Outputs:

- monitor training and educational materials
- data on monitoring results
- weekly monitoring reports
- presence or absence of cyanobacteria was monitored throughout the field season through an extensive network of volunteer monitors

Outcomes:

- support of local level implementation and involving the public
- long-term monitoring of water resources
- continuous monitoring and tracking the extent of HABs and their alert level
- data from the volunteer cyanobacteria monitoring network informs recreational usage of Lake Champlain, and fills a critical need to better understand cyanobacteria prevalence.

Organization: Lake Champlain Committee

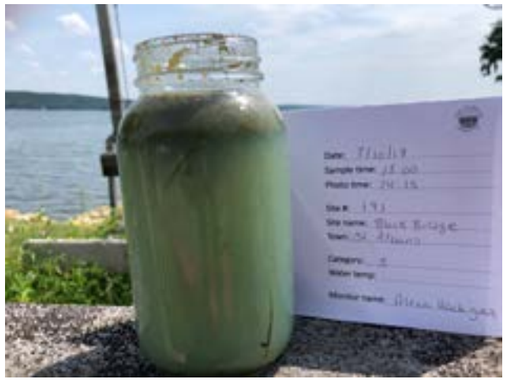
Contact Person: Lori Fisher

Mailing Address: 208 Flynn Avenue
Bldng. 3, Studio 3F
Burlington, VT 05401

Phone: 802-658-1421

E-mail: lorif@lakechamplaincommittee.org

Website: https://www.lakechamplaincommittee.org/



Cyano bloom at Black Bridge-Site 191 St Albans, VT

NEIWPCC Code: LS-2018-025
EPA 0995-002-001
Start Date: 1/11/2019
Close Date: **7/9/2020**
Grant Amount: $65,000.00
Non-federal Match:
Total Amount: **$65,000.00**

2020 Program Grants

in progress

Lake Champlain Committee Volunteer Coordination and Training for the Lake Champlain Cyanobacteria Monitoring Program

Project Summary

This workplan covers the Lake Champlain Committee's (LCC) portion of the on-going Lake Champlain cyanobacteria monitoring program for the period between January 2020 and December 31, 2020, and focuses on program development and revisions, recruitment, training, oversight and support of volunteer monitors. Program revisions include updating training and outreach materials with additional cyanobacteria identification information, and references to new research on public health impacts and New York State's harmful algal bloom (HAB) initiative. LCC will expand our cyanobacteria monitoring tools, coordinate with partners on a 2020 monitoring schedule and program, and recruit, coordinate, train, oversee and support volunteers, as well as provide quality control of monitor data entered to the Vermont Department of Health database. Given the extension of the monitoring season into the fall, we will host training sessions in the spring, summer and fall. All aspects of LCC's volunteer monitoring program are coordinated with and supplement monitoring conducted by the Vermont Department of Environmental Conservation (VT DEC) and the Vermont Department of Health (VDH). We will also coordinate with New York Department of Environmental Conservation (NY DEC) and key personnel involved with the Lake Champlain Harmful Algal Bloom (HAB) effort initiated in 2018.

Outputs:

- monitor training and educational materials
- data on monitoring results
- weekly monitoring reports
- presence or absence of cyanobacteria to be monitored throughout the field season

Outcomes:

- support of local level implementation and involving the public
- long-term monitoring of water resources
- continuous monitoring and tracking the extent of HABs and their alert level
- data from the volunteer cyanobacteris monitoring network informs recreational usage of Lake Champlain, and fills a critical need to better understand cyanobacteria prevalence

Organization: Lake Champlain Committee

Contact Person: Lori Fisher

Mailing Address: 208 Flynn Avenue
Bldng. 3, Studio 3F
Burlington, VT 05401

Phone: 802-658-1421

E-mail: lorif@lakechamplaincommittee.org

Website: https://www.lakechamplaincommittee.org/

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-106
EPA 0346-002-001
Start Date: 1/6/2020
Close Date:
Grant Amount: $80,000.00
Non-federal Match:
Total Amount: **$80,000.00**

2019 Program Grant

in progress

Quantifying P Retention in Restored Riparian Wetlands of the Lake Champlain Basin

Project Summary

This project will combine modeling and field studies to determine the short-term and long-term capacity for phosphorus retention in selected restored riparian wetlands within the Lake Champlain Basin.

Outputs:

- detailed field assessment of P dynamics in three restored riparian wetlands, including multiple inundation events over two years
- a model of riparian wetland P dynamics that can be used to examine P retention mechanisms and drivers at selected LCB sites
- an assessment of model simulations to determine potential for short-term and long-term P retention effectiveness for selected restored riparian wetlands under various scenarios.

Outcomes:

- TNC Vermont, the State of Vermont, and other natural resource management groups will be able to make better investments in riparian wetland restorations that help substantially reduce P loading to Lake Champlain.

Organization: UVM - RSENR

Contact Person: Dr. Eric Roy

Mailing Address: Rubenstein School of Environment & Natural Resources, University of Vermont
81 Carrigan Dr.
Burlington, VT 05405

Phone: (802) 656-3360

E-mail: eroy4@uvm.edu

Website:

Munson Flats project site in Malletts Creek WMA.

Lake Champlain Basin Program

NEIWPCC Code: LS-2018-026
EPA 0994-002-001
Start Date: 2/4/2019
Close Date:
Grant Amount: $115,000.00
Non-federal Match: $ 44,423.00
Total Amount: **$159,423.00**

2020 Program Grants

in progress

Quantifying Phosphorus Reductions for Proposed Projects in NY Reduction Plan

Project Summary

LCLGRPB staff will utilize the NYS DEC Pollutant Load Reduction Calculator to quantify phosphorus reduction for non-ag, non-point source on-the-ground projects identified in the Lake Champlain Non-Point Source Pollution Subwatershed Assessment and Management Plan. This information will be utilized to choose one project for implementation based on the reduction calculations.

Outputs:

- identification of Project Drainage Areas and land use acreages for 20% of projects
- utilize GIS to determine land use and area for 26 project subwatersheds for input into calculator
- webpage created on the LCLGRPB website that lists all the projects and their reduction calculations
- implementone of one phosphorus reduction project

Outcomes:

- phosphorus and nitrogen reduction

Organization: Lake George Lake Champlain RPB

Contact Person: Allison Gaddy

Mailing Address: PO Box 765
Lake George, NY 12845

Phone: 518-668-5773

E-mail: allison.gaddy@lclgrpb.org

Website: www.lclgrpb.org

Lake Champlain Basin Program

NEIWPCC Code: L-2019-088
GLFC 0100-328-002
Start Date: 11/6/19
Close Date:
Grant Amount: $100,000.00
Non-federal Match:
Total Amount: **$100,000.00**

2020 Program Grants

in progress

Quantifying the road salt pollution load to Mirror Lake and the Chubb River (Lake Placid, NY)

Project Summary

This project will collect data necessary to optimize and reduce road salt loading in the Chubb River sub-watershed and Lake Champlain Basin. Salt application from municipal equipment will be quantified using automatic vehicle location loggers, these data will be coupled with stormwater monitoring data, and continuous monitoring stations to quantify the road salt pollutant load to Mirror Lake and the Chubb River. These data will be used to inform and test the effectiveness of best management practices to reduce road salt use while maintaining safe driving and walking surfaces.

Outputs:

- three continuous monitoring stations installed
- map of stormwater pour points and outfalls
- LIDAR based stormwater runoff model
- data loggers installed in 2 outfalls
- collection and analysis of stormwater samples for ~7 runoff events.
- survey developed and distributed to area businesses and residents
- coordinate installation of fleet tracking and data logging equipment on municipal vehicles.
- Coordinate training on calibration; ensure ongoing data collection.
- water quality workshops and youth program
- development of intepretive displays

Outcomes:

- reduction of road salt loading in the Chubb River sub-watershed and Lake Champlain Basin.

Organization: Ausable River Association

Contact Person: Kelley Tucker

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518-637-6859

E-mail: k tucker@ausableriver.org

Website: www.ausableriver.org

Lake Champlain Basin Program

NEIWPCC Code: L-2019-085
GLFC 0100-328-002
Start Date: 10/4/2019
Close Date:
Grant Amount: $175,000.00
Non-federal Match: $ 45,000.00
Total Amount: **$220,000.00**

2019 Program Grant

in progress

Rock River Geomorphic Assessment

Project Summary

The purpose of this project is to complete geomorphic assessments in the Rock River watershed in Vermont and Québec. The Vermont Stream Geomorphic Assessment (SGA) Protocols provide sound and scientifically-defensible methods for identifying stressors on channel stability. Restoration projects identified during these assessments present important opportunities to improve water quality, geomorphic stability, and stream habitat features.

Outputs:

- update and improve existing SGA data for approximately 27 kilometers of stream channel in Vermont
- complete full assessments for approximately 32 kilometers of stream channel in Quebec.
- prioritize stream buffer improvement projects
- best management practice implementation,

Outcomes:

- and other projects aimed at reducing phosphorus loading and improving stream habitat and water quality within the Rock River and Missisquoi Bay.

Organization: Fitzgerald Environmental Associates, LLC

Contact Person: Evan P. Fitzgerald

Mailing Address: 18 Severance Green,Suite 203
Colchester, VT 05446

Phone: 802-876-7778

E-mail: evan@fitzgeraldenvironmental.com

Website: www.fitzgeraldenvironmental.com

Pebble count for Phase 2 assessment on the Green River in Halifax , VT

Lake Champlain Basin Program

NEIWPCC Code: L-2019-010
GLFC 0100-319-002
Start Date: 3/14/2019
Close Date:
Grant Amount: $69,944.00
Non-federal Match:
Total Amount: **$69,944.00**

2020 Program Grants

in progress

Securing and Restoring Aquatic Habitat Connectivity in the North Branch Boquet River Watershed

Project Summary

The Nature Conservancy will restore and connect habitat in the Boquet River watershed for salmonids and other aquatic species by pursuing an integrated strategy that combines riparian habitat protection and restoration with instream barrier removals through culvert replacements. LCBP funding will be used to support habitat protection and restoration work and identification of priority culverts for replacement (additional fundraising needed to put culvert upgrades in place).

Outputs:

- develop a comprehensive spatial planning tool that integrates riparian protection and restoration priorities with aquatic connectivity priorities
- complete 3-5 riparian protection and/or restoration projects along the Boquet River and its tributaries.
- list of priority culverts for replacement based on spatial planning tool and input from municipalities

Outcomes:

- improved aquatic organism connectivity and flood resilience in the Boquet River watershed

Organization: The Nature Conservancy

Contact Person: Dirk Bryant

Mailing Address: P.O. Box 65, 8 Nature Way
Keene Valley NY 12943

Phone: 518/576-2082

E-mail: dbryant@tnc.org

Website: nature.org/newyork

Assessing sedimentation impacts on salmon spawning habitat in the Boquet

Lake Champlain Basin Program

NEIWPCC Code: L-2019-103
GLFC 0100-328-003
Start Date:
Close Date:
Grant Amount: $130,000.00
Non-federal Match: $324,547.00
Total Amount: **$454,547.00**

2019 Program Grant

in progress

St Albans Public-Private Partnership Stormwater Demonstration Project

Project Summary

The City of St. Albans will partner with at least one property owner of a built-out 3+ acre site to explore whether a municipal stormwater treatment facility could also fulfill the mandated treatment requirement of the private parcel "down the pipe." This project would address the challenges facing historically built out urban communities and properties as they consider the retrofits necessary for new water quality requirements.

Outputs:

- final design of the treatment facility
- develop design solutions for fulfilling multi-sector water quality requirements at the site
- develop a basis for the shared financing of construction and operations and maintenance.

Outcomes:

- reduce beach closures resulting from Harmful Algal Blooms, specifically St. Albans Bay.
- increase stormwater retention capacity to reduce run-off during storm events.

Organization: City of St. Albans, VT

Contact Person: Chip Sawyer

Mailing Address: PO Box 867, 100 North Main Street
St. Albans, VT 05478

Phone: 802-524-1500 x*259

E-mail: c.sawyer@stalbansvt.com

Website: www.stalbansvt.com

Map of treatment area

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-006
EPA 0995-002-001
Start Date: 2/14/2019
Close Date:
Grant Amount: $100,000.00
Non-federal Match:
Total Amount: **$100,000.00**

2020 Program Grants

in progress

Targeted interventions to reduce agricultural runoff and erosion in affected areas of the Missisquoi Bay Basin

Project Summary

Intervention plans to control runoff and erosion, taking into account farmers needs and available funding for the implementation of recommended actions, will be proposed to each farmer located in subwatersheds of waterways concerned with maintenance works due to high levels of sedimentation, to improve water quality in the Missisquoi Bay and the Pike and Rock River subwatersheds. Expected outcomes include the reduction of phosphorus and sediment loads from the Pike and Rock River watersheds to the Missisquoi Bay, reduction of sedimentation and maintenance frequency in agricultural waterways and improvement riparian and aquatic habitat.

Outputs:

- intervention plans to control runoff and erosion

Outcomes:

- reduction of phosphorus and sediment loads from the Pike and Rock River
- reduction of sedimentation and maintenance frequency in agricultural waterways
- improved riparian and aquatic habitat.

Organization: OBVBM

Contact Person: Frédéric Chouinard

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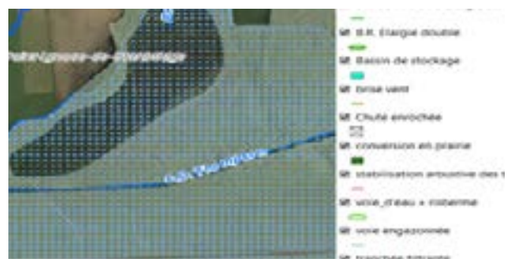
Bedford (Québec) Canada, J0J 1A0

Phone: (450) 248-0100

E-mail: frederic.chouinard@obvbm.org

Website: www.obvbm.org



Lake Champlain Basin Program

NEIWPCC Code: L-2019-087
GLFC 0100-328-002
Start Date: 11/12/2019
Close Date:
Grant Amount: $180,000.00
Non-federal Match: $ 56,850.00
Total Amount: **$236,850.00**

2019 Program Grant

in progress

Trees for Streams

Project Summary

The State Natural Resources Conservation Council (NRCC) and Vermont's Natural Resources Conservation Districts will improve riparian habitats and protect water quality by planting a minimum of 28 acres of woody buffers in priority watersheds located throughout the Lake Champlain Basin. A final report will detail before and after planting photos, lists of future planting locations, and will include associated press releases, blog posts, and other outreach efforts.

Outputs:

- minimum of 28 acres (24,000 linear feet) planted, high quality riparian buffer restoration
- signed landowner agreements, with a 10-year minimum O&M plan.

Outcomes:

- reduction of sediment and nutrient (phosphorus) runoff into waterways
- improved water quality (Districts who monitor water quality will try to show the link between the new buffer and water quality improvement)
- improved water temperature (and fish populations)
- improved habitat along streams, restoration of habitat including river corridors and habitat connectivity, increased native species with the potential reduction of invasive plants
- long-term (a minimum of 10 years) river corridor protection along these riparian areas
- community engagement and increased awareness of the environmental benefit of this work leading to behavior change
- increased awareness of efforts to improve water quality in Lake Champlain and information about viable planting locations for ongoing planting work.

Organization: State Natural Resources Conservation Council (NRCC)

Contact Person: Holden Sparacino

Mailing Address: 481 Summer Street, Suite 202
St Johnsbury, VT 05819

Phone: (408) 472-2622

E-mail: holden.sparacino@vacd.org

Website: https://www.vacd.org/

Fifty-foot-wide Livestock Exclusion Buffer in Poultney, VT, with 1515 trees planted during spring/fall of 2018.

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-038
EPA 0995-002-001
Start Date: 6/18/2019
Close Date:
Grant Amount: $158.000.00
Non-federal Match: $ 13,775.00
Total Amount: **$171,775.00**

2020 Program Grants

in progress

Using a 3-Dimensional Coupled Hydrodynamic-Aquatic Ecosystem Model to Evaluate Alternatives for Controlling Internal Phosphorus Loading in Missisquoi Bay

Project Summary

Stone Environmental, Inc., (Stone) has partnered with Geochemist Dr. Andrew Schroth and Water Resources Engineer Dr. Clelia Luisa Marti of the University of Vermont (UVM) to assess sediment phosphorus (P) dynamics and evaluate management alternatives to reduce internal P loading and cyanobacteria blooms in Missisquoi Bay (MB). A lake management firm specializing in development of management strategies to reduce internal P loading will also be added to the project team.

An existing 3-dimensional, coupled Hydrodynamic-Aquatic Ecosystem Model (AEM3D) of MB developed by Dr. Marti will be used in developing a sediment sampling plan, the results of which will enable further model refinements and development of a comprehensive spatial sediment P inventory for MB and an associated conceptual model of the hydrodynamic and biogeochemical drivers of P distributions. The calibrated and validated model will then be used to run scenarios evaluating the effectiveness of P inactivation strategies under differing conditions of future watershed loading. Predicted transient chlorophyll-a and dissolved oxygen concentration distributions across MB will be interpreted to assess impacts on the occurrence of blooms, while water column P concentrations will be used to assess impacts on P dynamics in MB. The cost, permitting feasibility, public acceptance, and ecological impacts of internal P loading management strategies will also be evaluated, compared, and ranked. Visualization tools will be developed and hosted for lake managers to examine effects of internal P reduction strategies and to communicate the optimized plan to the public.

Outputs:

- provide the management community with a holistic perspective of available options and possible outcomes associated with interventions aimed at suppressing internal P loading and cyanobacteria blooms in MB.

Outcomes:

- phosphorus reduction

Organization: Stone Environmental

Contact Person: Dave Braun

Mailing Address: 535 Stone Cutters Way
Montpelier, Vermont 05602

Phone: (802) 229-4541

E-mail: dbraun@stone-env.com

Website: http://www.stone-env.com/

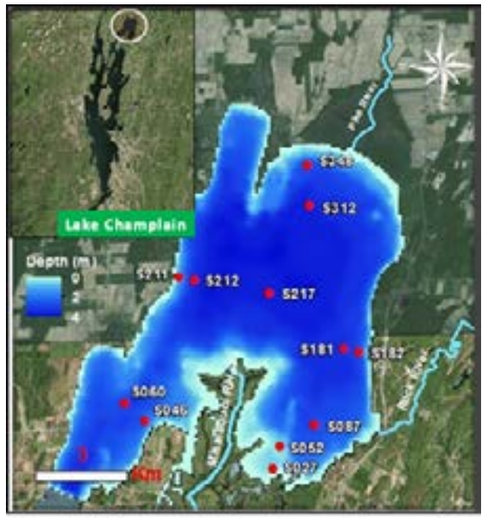


Figure 1. MB site and bathymetry map with sample core locations (red dots) where sectioned cores (to 10 cm) have been analyzed for P inventories at 4 time points in 2013 (June–Sept.). At point S087, there are biweekly time series of sediment P inventories in 2013-14 and 2014-2015. All points have concident water column physical, chemical and biological data (Table 1).

Lake Champlain Basin Program

NEIWPCC Code: L-2020-063
EPA 0346-002-001
Start Date:
Close Date:
Grant Amount: $249,966.00
Non-federal Match: $ 3,990.00
Total Amount: **$253,956.00**

HEALTHY ECOSYSTEMS

GOAL: Ecosystems that provide clean water for drinking and recreating, and intact habitat that is resilient to extreme events and free of aquatic invasive species where diverse fish and wildlife populations will flourish.

LCBP

LCBP

Program Highlights

In FY2020, LCBP staff:

- Worked with a stakeholder group to review alternative barrier options for Champlain Canal barrier feasibility study to prevent spread of aquatic invasive species
- Coordinated and participated in Vermont and New York dam task forces in efforts to increase river habitat connectivity.
- Surveyed 15,388 boaters and intercepted invasive species on one in twelve boats inspected by boat launch stewards in summer 2020.
- Helped conduct an inventory of sensitive natural resources along the 587 miles of Lake Champlain shoreline as the basis for the development of a NOAA Environmental Sensitivity Index.
- Served in leadership positions with professional organizations and committees, including North American Lake Management Society, National Aquatic Nuisance Species Task Force, and regional Northeast Aquatic Nuisance Species Panel.

Local Grant Highlights

- **Habitat Improvement:** The Warren County SWCD installed floating wetlands, in-channel woody debris habitat structures, and bird boxes in the Halfway Brook watershed.
- **Stream Crossing Improvement**: The Ausable River Association coordinated the replacement of undersized and failing culvert on Otis Brook to improve habitat and flood resilience.
- **VT AIS Management:** The Lewis Creek Assn. surveyed Lewis Creek, Bristol Pond, and Monkton Pond for aquatic invasive species, created an AIS management plan, and started a boat launch steward program at Bristol Pond.
- **NY AIS Management:** The Lincoln Pond Assn. conducted a survey of invasive plants and developed a management plan and education outreach program.

Ausable River Association

2019 Local Implementation Grant

concluded

AIS River Steward for the Ausable River/Northern Champlain Region, NY

Project Summary

AsRA's river steward program protects the Ausable River, its tributaries, lakes, and the riverine corridor from aquatic invasive species to ensure healthy aquatic and riparian ecosystems. Over its eight years, the primary outcome of the river steward program has been an increase in human awareness and action that is integral to spread prevention, early identification, and a reduction in invasive species infestations in the watershed. In 2019, the river steward was active from May 1 through October 15 and was an on-the-river resource during peak fishing times. The steward's main objective was to provide spread prevention education to river users and administer a survey to gather data about the user's previous bodies of water visited, type of gear used, and gear cleaning methods. These data are used to determine AIS threats to the Ausable River and its watershed and to refine education and outreach methods.

Outputs:

- AIS education and prevention on-stream and at public events
- information resource to the public (especially river users)
- monitoring of the river's condition for presence or absence of AIS
- and maintaining wader wash stations across the watershed.

Outcomes:

- increase in human awareness and action that is integral to spread prevention, early identification, and a reduction in invasive species infestations in the watershed.

Organization: Ausable River Association (AsRA)

Contact Person: Kelley Tucker

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518.637.6859

E-mail: ktucker@ausableriver.org

Website: www.ausableriver.org

Liz Kamb 2019 Ausable River steward

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-018
GLFC	0100-323-003
Start Date:	6/20/2019
Close Date:	**12/11/2019**
Grant Amount:	$15,000.00
Non-federal Match:	$ 3,249.00
Total Amount:	**$18,249.00**

2020 Local Implementation Grant — in progress

AIS River Steward for the Ausable River/Northern Champlain Region, NY

Project Summary

AsRA's river steward program protects the Ausable River, its tributaries, lakes, and the riverine corridor from aquatic invasive species to ensure healthy aquatic and riparian ecosystems. Over its nine years, the primary outcome of the river steward program has been an increase in human awareness and action that is integral to spread prevention, early identification, and a reduction in invasive species infestations in the watershed. In 2020, with LCBP funds, the river steward will continue to deliver critical AIS education and prevention on-stream, at Mirror Lake, and at public events during the angling and river recreational season by distributing the spread prevention message in conversations, serving as an information resource to the public (especially river users), monitoring the river's condition for presence or absence of AIS, overseeing the distribution of educational materials, and maintaining wader wash stations across the watershed.

Outputs:

- AIS education and prevention on-stream and at public events
- information resource to the public (especially river users)
- monitoring of the river's condition for presence or absence of AIS
- and maintaining wader wash stations across the watershed.

Outcomes:

- increase in human awareness and action that is integral to spread prevention, early identification, and a reduction in invasive species infestations in the watershed.

Organization: Ausable River Association (AsRA)

Contact Person: Kelley Tucker

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518.637.6859

E-mail: ktucker@ausableriver.org

Website: www.ausableriver.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-002
EPA 346-003-001
Start Date: 2/10/2020
Close Date:
Grant Amount: $15,000.00
Non-federal Match: $ 2,000.00
Total Amount: **$17,000.00**

2020 Local Implementation Grant — in progress

AIS Spread Prevention, 2020: Evidence-based Decision-making at Lake St. Catherine

Project Summary

To implement the Lake St. Catherine AIS Spread Prevention's higher level of performance, a two-pronged approach will be initiated in 2020: the Boat Launch Greeter Program expansion will be implemented in four (4) evidence-based targeted deliverables based on a pilot study conducted in 2019: expanding- the greeter program during times of high boat traffic with additional hours for fishing tourneys, during the 4th of July week, expanding the overall program by 25% and creating zebra mussel awareness campaign. In addition to the Greeter program, there will be a survey of the Channel area for AIS by the Diver-Assisted Suction Harvesting program.

A pre-and-post DASH survey of the Channel adjacent to the Boat Launch for harvesting by the Diver-Assisted Suction Harvesting program to minimize AIS uptake upon boat retrieval, with special attention to zebra mussels given their emerging threat to Vermont Lakes in 2020. The expected outcomes include: reduction of the # of AIS encountered on watercraft retrieval (due to DASH harvest of Eurasian watermilfoil near launch), which was recorded in 2019 at 14% (percentage based on 2019 Greeter Program results); expansion of boat launch steward greeter coverage by 25%; and harvesting of the Channel areas surrounding the boat launch. Other outcomes include AIS education for Lake Residents as well as focused training for greeters on non-milfoil AIS. The LSCA Greeters attend the VTDEC Greeter Training in mid-May and will receive additional materials at LSCA on zebra mussels as necessary, organized by the LSCA Trustee liaison to the Greeter Program.

Outputs:

- expansion of boat launch steward greeter coverage
- harvesting of the Channel areas surrounding the boat launch.

Outcomes:

- reduction of the # of AIS encountered on watercraft retrieval

Organization: Lake St. Catherine Association

Contact Person: Martha H. Pofit

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Wells, Vermont 05774

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E-mail: martha.pofit@lakestcatherine.org

Website: www.lakestcatherine.org

Lake Champlain Basin Program

NEIWPCC Code: L-2020-039
GLFC 100-328-003
Start Date: 4/10/2020
Close Date:
Grant Amount: $14,141.00
Non-federal Match: $ 5,726.00
Total Amount: **$19,867.00**

2019 Local Implementation Grant — concluded

AIS Spread Prevention Watercraft Inspector Program

Project Summary

This LCBP/NEIWPCC funded project supported three watershed steward positions within the Lake Champlain Basin of the Adirondacks for the summer 2019 field season. Stewards were deployed at the public boat launches accessing Lake Placid in the Ausable River Watershed, and Lake Flower, Second Pond, and at the Buck Pond State Campground accessing Rainbow Lake all within the Saranac River Watershed.

Outputs:

- 25,521 visitor interactions, 13,978 watercraft inspections, 183 confirmed AIS and 660 non-invasive organisms removed.

Outcomes:

- User awareness and willingness to adhere to NYS AIS transport law.
- AIS spread prevention in the ADK park and Lake Champlain basin.

Organization: Adirondack Watershed Institute Stewardship Program

Contact Person: Eric Paul

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Phone: 518-327-6271

E-mail: epaul@paulsmiths.edu

Website: paulsmiths.edu

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-042
EPA 0995-003-001
Start Date: 5/21/2019
Close Date: **3/12/2020**
Grant Amount: $45,000.00
Non-federal Match: $ 8,670.00
Total Amount: **$53,670.00**

2020 Local Implementation Grant — in progress

AIS Spread Prevention Watercraft Inspector Program in the Adirondacks and Rainbow Lake

Project Summary

The LCBP AIS Spread Prevention Watercraft Inspector Program will provide two seasonal staff members for invasive species spread prevention initiatives at Buck Pond Campground, Second Pond (Lower Saranac Lake), and Lake Flower. Paul Smith's College Adirondack Watershed Institute stewards will perform inspections of all watercraft launching and retrieving at these sites and educate the public about the importance of the impacts of AIS to waterways.

Outputs:

- visitor interactions, watercraft inspections, data collection and AIS removal

Outcomes:

- an increase in willingness to adhere to Clean, Drain, Dry, and prevention of further spread of AIS in these waterbodies

Organization: Adirondack Watershed Institute Stewardship Program

Contact Person: Eric Paul

Mailing Address: Paul Smith's College, P.O. Box 265, Paul Smiths, NY 12970

Phone: 315-244-7154

E-mail: epaul@paulsmiths.edu

Website: paulsmiths.edu

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-029
EPA 346-003-001
Start Date: 4/3/2020
Close Date:
Grant Amount: $30,000.00
Non-federal Match: $14,005.00
Total Amount: **$44,005.00**

2020 Local Implementation Grant — in progress

Aquatic Invasive Species Education and Outreach

Project Summary

Lake Champlain Maritime Museum (LCMM) will incorporate new information and resources into staff and public training to broadly inform the public about threats from aquatic invasive species (AIS). Outputs include: onsite and on-water AIS trainings for staff and public participants with the most current research available (anticipated 20 participants); updated AIS display at LCMM (anticipated 10,000 visitors and students); and educational contacts with visitors on the Schooner Lois McClure about new threats and prevention strategies (anticipated 4,000 adults and children). Outcomes include: more complete, hands-on training for volunteer monitors, interpreters, and educators; greater awareness of new and previous species affecting our watershed; and greater understanding of the interdependence of human impacts and aquatic ecosystems among public stakeholders.

Outputs:

- onsite and on-water AIS trainings for staff and public participants with the most current research available (anticipated 20 participants)
- updated AIS display at LCMM (anticipated 10,000 visitors and students)
- educational contacts with visitors on the Schooner *Lois McClure* about new threats and prevention strategies (anticipated 4,000 adults and children)

Outcomes:

- more complete, hands-on training for volunteer monitors, interpreters, and educators
- greater awareness of new and previous species affecting our watershed
- greater understanding of the interdependence of human impacts and aquatic ecosystems among public stakeholders.

Organization: Lake Champlain Maritime Museum
Contact Person: Elizabeth Lee
Mailing Address: 4472 Basin Harbor Road, Vergennes, VT 05491
Phone: 802-475-2022 x 102
E-mail: elizabethl@lcmm.org
Website: https://www.lcmm.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2020-023
GLFC 100-328-003
Start Date: 3/9/2020
Close Date:
Grant Amount: $14,125.00
Non-federal Match: $ 3,080.00
Total Amount: **$17,205.00**

2019 Local Implementation Grant — concluded

Backcountry Water Monitors, Year Five

Project Summary

The Backcountry Water Monitors Project, year five was the continuation of the initiative to survey the many unsurveyed backcountry lakes and ponds within the Lake Champlain Basin of the Adirondack Park for aquatic invasive species (primarily plant species). The objective of the project also involves education and outreach to ADK's 30,000 members, our many supporters and the general public about Aquatic Invasive Species (AIS) spread prevention

Outputs:

- recruitment and training of volunteers
- 2 workshops, 18 ponds surveyed
- outreach to local organizations and businesses, and number of events attended and people engaged.

Outcomes:

- Aquatic invasive species monitoring, spread prevention, and education and outreach.

Organization: Adirondack Mountain Club
Contact Person: Cathy Pedler
Mailing Address: 814 Goggins Road, Lake George, NY 12845
Phone: 518-668-4447
E-mail: cathypedler.adk@gmail.com
Website: https://www.adk.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2019-025
GLFC 0100-323-003
Start Date: 4/1/2019
Close Date: **2/26/2020**
Grant Amount: $11,889.00
Non-federal Match: $ 5,197.00
Total Amount: **$17,086.00**

2020 Local Implementation Grant — in progress

Backcountry Water Monitors, Year Six

Project Summary

The Backcountry Water Monitors Project (BCWM) seeks to educate and recruit volunteers who can monitor backcountry waters of the Lake Champlain Basin and the Adirondack Park which are currently not effectively surveyed by other efforts. Working with the Adirondack Park Invasive Plant Program (APIPP), NYS Department of Environmental Conservation (DEC), and iMapInvasives, the BCWM project will educate and train ADK members and supporters 1) to identify Aquatic Invasive Species (AIS) in backcountry waters; and 2) to record and report their work to project staff and through iMapInvasives. The BCWM project will conduct two workshops to train volunteers in backcountry monitoring for AIS. The project will also conduct at least seven staff-led outings to survey backcountry ponds. ADK's membership, volunteers, and various print and social media platforms will help increase attendance at these workshops and outings. In year six of the BCWM project, ADK will educate its membership about aquatic invasives through a comprehensive awareness campaign resulting in 25 volunteer stewards who will identify, monitor, and report AIS in 15 backcountry areas of the Lake Champlain Basin and the Adirondack Park

Outputs:

- recruitment and training of volunteers
- workshops, ponds surveyed
- outreach to local organizations and businesses, and number of events attended and people engaged.

Outcomes:

- Aquatic invasive species monitoring, spread prevention, and education and outreach.

Organization: Adirondack Mountain Club

Contact Person: Cathy Pedler

Mailing Address: 814 Goggins Road
Lake George, NY 12845

Phone: 518-668-4447

E-mail: cathypedler.adk@gmail.com

Website: https://www.adk.org/

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-030
GLFC	100-328-003
Start Date:	3/23/2020
Close Date:	
Grant Amount:	$13,270.00
Non-federal Match:	$ 5,480.00
Total Amount:	**$18,750.00**

2019 Local Implementation Grant — concluded

Boat Launch Stewards at Lake Carmi

Project Summary

The Lake Carmi Boat Steward Project began Memorial Day weekend at the end of May 2019 and ended at the end of August 2019 during the Labor Day weekend. The Boat steward was trained pursuant to DEC mandates and has worked as a greeter for at least the last five years. The Steward worked at the VT Fish & Wildlife boat launch at the north end of the lake and also at the Lake Carmi State Park Boat Launch at the south end. It has been noted however that most boats entering Lake Carmi are launched at the north end so more time was spent at that boat launch. The north end boat launch is a free launching site maintained by the Dept. of Fish & Wildlife while the State Park charges a fee to launch boats at their site.

Outputs:

- 313 days of steward coverage
- 433 boats surveyed and inspected
- Spread prevention measures taken
- Invasive organisms removed from watercraft
  Eurasian watermilfoil – 17
  Water chestnuts - 1
  Curly Leaf Pond Weed– 1
- Last body of water visited in previous two weeks.

Outcomes:

- Aquatic invasive species spread prevention and education in the Lake Champlain Basin.

Organization: Franklin Watershed Committee

Contact Person: Peter Benevento

Mailing Address: PO Box 79
Franklin, VT 05457

Phone: (774) 258-0216

E-mail: peterrben@gmail.com

Website: franklinwatershedcommittee.org

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-020
GLFC	0100-323-003
Start Date:	5/6/2019
Close Date:	**3/23/2020**
Grant Amount:	$8,766.00
Non-federal Match:	
Total Amount:	**$8,766.00**

2019 Local Implementation Grant — concluded

Chazy Lake Watershed Initiative / Chazy Lake Environmental Committee

Project Summary

Chazy Lake Watershed Association (CLWI) contracted with Aqualogic to develop a plan and conduct diver assisted suction harvesting for Eurasian watermilfoil (EWM) in Chazy Lake. Aqualogic started the removal on September 3, 2019 and completed their contract on September 21, 2019. One large area was identified by CLWI and marked by a special buoy. This area had the highest density of deep water EWM as identified by DFWI.

Outputs:

- 15 day diver assisted suction harvesting (DASH) of Eurasian water milfoil
- daily harvest reports and harvest map, including percentage of EWM present pre and post treatment
- approximately 4800 gallons of Eurasian water milfoil was removed. Aqualogic cleared 80,000 square feet of maximum density EWM and only five percent EWM remains

Outcomes:

- Eurasian watermilfoil control and spread prevention conducted in Chazy Lake.
- Support and conduct AIS Management and Research.
- Reduce and contain AIS populations in the Basin. Eliminate or prevent the expansion of AIS populations using control techniques such as hand pulling, benthic barrier matting, suction harvesting and pesticides.

Organization: Chazy Lake Watershed Initiative

Contact Person: Lisa McGinn

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Ellenburg Depot, NY 12935

Phone: 518 492-7537

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Website: https://www.adk.org/

Aqualogic at work.

Lake Champlain Basin Program

NEIWPCC Code: L-2019-022
GLFC 0100-319-003
Start Date: 4/12/2019
Close Date: **12/12/2019**
Grant Amount: $15,000.00
Non-federal Match: $ 2,700.00
Total Amount: **$17,700.00**

2020 Local Implementation Grant — in progress

Follensby Clear Pond Aquatic Invasive Species Removal

Project Summary

The LCBP AIS Spread Prevention Grant will subsidize the expansion of successful efforts to control and prevent the spread of invasive Eurasian watermilfoil in the Saranac Lake watershed, protecting downstream waters from infestation, and preventing the export of populations of AIS to non-infested regional waters. AIS plant control methods utilizing hand harvesting, will help prevent the spread of AIS, maintain native species in their natural habitats and provide economic value through recreation, tourism and sportsmanship. This project is consistent with the USF goals of providing clear waterways and ensuring the sustainability of our natural public resources for future generations. The USF is committed to the long-term sustainability of this project and will support ongoing AIS management efforts at this location past the initial harvest period.

Outputs:

- hand harvesting of invasive Eurasian watermilfoil

Outcomes:

- control and prevent the spread of invasive Eurasian watermilfoil in the Saranac Lake watershed
- protecting downstream waters from infestation
- preventing the export of populations of AIS to non-infested regional waters

Organization: Upper Saranac Foundation

Contact Person: Guy Middleton

Mailing Address: PO Box 564
Saranac Lake, NY 12983

Phone: 518 796-1052

E-mail: lakemanager@usfoundation.net

Website: https://usfoundation.net/

Lake Champlain Basin Program

NEIWPCC Code: L-2020-038
GLFC 100-328-003
Start Date: 4/3/2020
Close Date:
Grant Amount: $15,000.00
Non-federal Match: $ 2,560.00
Total Amount: **$17,560.00**

2019 Local Implementation Grant — concluded

Lake Dunmore Fern Lake Boat Access Greeter Program

Project Summary

LDFLA provided free boat and trailer inspections to prevent the spread of aquatic invasive species to Lake Dunmore and lakes in the Lake Champlain watershed. LDFLA collected data on watercraft entering and leaving the lake, as well as invasive species that is provided to LCBP and State of Vermont. Volunteers educate visiting boaters and residents concerning the danger of aquatic invasive species.

Outputs:

- data collection
- distribution of AIS prevention handouts
- 1618 watercraft and trailer inspections

Outcomes:

- Aquatic invasive species spread prevention and education and outreach in the Lake Champlain Basin

Organization: Lake Dunmore Fern Lake Association

Contact Person: Katie Gellenbeck

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Salisbury, VT, 05769

Phone: 239-272-5494

E-mail: ktbeck@me.com

Website: www.ldfla.com

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-041
EPA	0995-003-001
Start Date:	6/20/2019
Close Date:	**1/8/2020**
Grant Amount:	$14,656.00
Non-federal Match:	$ 1,983.75
Total Amount:	**$16,639.75**

2019 Local Implementation Grant — concluded

Lake Eden Greeter Program

Project Summary

The Greeter program was established in 2009, continued on Lake Eden this year as in past years at the three public boat launches. The program runs from May through the middle of October. Eight (8) stewards conducted inspections and worked a total of 1293.25 hours in their effort to stop invasive species from contaminating our beautiful lake. Eleven (11) volunteers patrolled the lake routinely for a total of 258 hours.

Outputs:

- data collection
- distribution of AIS prevention handouts
- 2953 watercraft and trailer inspections

Outcomes:

- Aquatic invasive species spread prevention and education and outreach in the Lake Champlain Basin

Organization: Lake Eden Association

Contact Person: Carol Hamel

Mailing Address: 71 Old Schoolhouse Rd.
Eden Mills, VT 05653

Phone: (802) 635-2528

E-mail: sbadmin@edenvt.org

Website: edenvt.org

Boat Inspection S

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-030
EPA	0995-003-001
Start Date:	4/17/2019
Close Date:	**2/25/2020**
Grant Amount:	$15,000.00
Non-federal Match:	$13,420.00
Total Amount:	**$28,420.00**

2020 Local Implementation Grant — in progress

Lake Eden Greeter Program 2020

Project Summary

There are three public boat launches on Lake Eden. This project proposes to continue the greeter program, established in 2009, at each location to talk to boaters on the invasive species problem in Vermont. Educational materials will be distributed and boaters asked to inspect their boats before and after entering a body of water. A daily log of boater activity will be kept. VIP Patrollers continue to monitor Lake Eden to assist in the early detection of milfoil or other invasive species, a program started in 2008.

Outputs:

- data collection
- distribution of AIS prevention handouts
- watercraft and trailer inspections

Outcomes:

- Aquatic invasive species spread prevention and education and outreach in the Lake Champlain Basin

Organization: Lake Eden Association

Contact Person: Gary Durett

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Eden, VT 05652

Phone: 802 760-0841

E-mail: gmdurett@myfairpoint.net

Website: http://www.edenvt.org/recreation/lake-eden-association-greeter-program/

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-061
EPA 346-003-001
Start Date: 5/5/2020
Close Date:
Grant Amount: $15,000.00
Non-federal Match: $13,550.21
Total Amount: **$28,550.21**

2019 Local Implementation Grant — concluded

Lake George AIS Outreach Program 2019

Project Summary

The Lake George AIS Outreach Program hired one summer staff member to conduct invasive species public education and outreach throughout the Lake George watershed in order to expand individual and community awareness of the threats of invasive species and ways they can help prevent their spread. They were occasionally positioned at the Northwest Bay cartop launch to provide canoers and kayakers courtesy vessel inspections and provide educational information about preventing the spread of AIS. The main focuses of the outreach component were to deliver educational invasive species spread prevention messages to boaters and other recreationalists, interact with and educate the public on aquatic invasive species, distribute printed materials, and organize and participate in activities within the Lake George watershed during NY's Invasive Species Awareness Week. This project informed visitors of the steps they can take to help prevent the spread of invasive species by cleaning, draining, and drying their boats and equipment and delivered education and outreach behavior change campaigns targeted at the general public and targeted water user groups.

The majority of interactions with people about aquatic invasive species occurred at events throughout the Lake George watershed. Twenty-one of the interactions took place at the Northwest Bay Cartop boat launch.

Outputs:

- 4 canoes and 13 kayaks were inspected at this boat launch - no aquatic invasive species were found attached to the vessels.
- 629 interactions with people between May and the end of August 2019 about invasive species pread prevention

Outcomes:

- Aquatic invasive species spread prevention
- increased community awareness and education and outreach.

Organization: The Lake George Association

Contact Person: Kristen Wilde

Mailing Address: P. O. Box 408
Lake George, NY 12845

Phone: 518 668-3558

E-mail: kwilde@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-009
EPA 0995-003-001
Start Date: 3/26/2019
Close Date: **7/8/2020**
Grant Amount: $5,324.00
Non-federal Match: $ 700.00
Total Amount: **$6,024.00**

2020 Local Implementation Grant — in progress

Lake George AIS Outreach Program 2020

Project Summary

The Lake George AIS Outreach Program will conduct invasive species public education and outreach throughout the Lake George watershed in order to expand individual and community awareness of the threats of invasive species and ways they can help prevent their spread. One summer staff person will be hired to provide education and outreach at events and cartop launches. Outputs will include number of canoe and kayak inspections and number of people interacted with about invasive species spread prevention. Through educational programming we hope to expand individual and community awareness of the threats of invasive species and ways they can help prevent their spread.

Outputs:

- number of canoe and kayak inspections
- number of people interacted with about invasive species spread prevention

Outcomes:

- Aquatic invasive species spread prevention
- increased community awareness and education and outreach.

Organization: The Lake George Association

Contact Person: Kristen Wilde

Mailing Address: P. O. Box 408
Lake George, NY 12845

Phone: 518 668-3558

E-mail: kwilde@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-055
EPA	346-003-001
Start Date:	6/9/2020
Close Date:	
Grant Amount:	$5,797.00
Non-federal Match:	$ 700.00
Total Amount:	**$6,497.00**

2019 Local Implementation Grant — in progress

Lake Hortonia Milfoil Management

Project Summary

This project seeks funding to support DASH harvesting of EWM on 2.0 acres located at the boat launch. The specific outputs of the project will be an approved QAPP, calendar of the treatments, map and size of the treatment area, map/photos of disposal site, VT ANR permit for DASH, three quotes for DASH harvest, # of cubic yards of EWM collected, harvesting rate, progress and photos, # of composted cubic yards of EWM, photos and compost practices, copies of education and outreach materials and releases, and final report including the native plant regrowth in treatment area. Quarterly reports will be submitted during the period of the grant indicating progress through the project as well as a year summary discussing the suction harvesting conducted in the targeted area of Lake Hortonia and the results from subsequent invasive weed survey to be conducted by the Darrin Fresh Water Institute.

Outputs:

- calendar of the treatments
- map and size of the treatment area
- map/photos of disposal site
- # of cubic yards of EWM collected, harvesting rate
- # of composted cubic yards of EWM, photos and compost practices
- education and outreach materials and releases
- native plant regrowth in treatment area.

Outcomes:

- Reduce the population of Eurasian water milfoil and prevent spread and further impact.

Organization: Lake Hortonia Property Owner Association

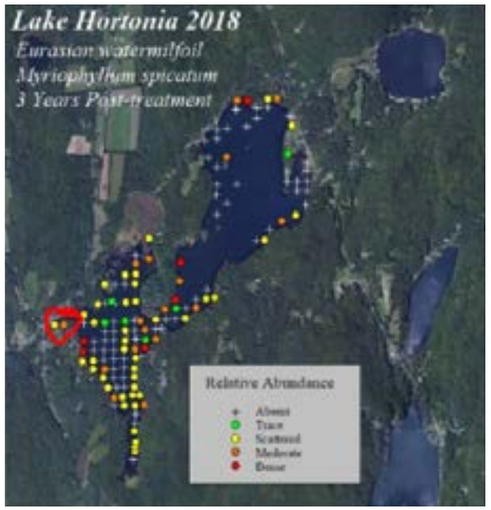
Contact Person: Thomas Batzinger

Mailing Address: 12 Kelly Meadow Road
Burnt Hills, New York 12027

Phone: 518 669-9828

E-mail: tmbatzinger@nycap.rr.com

Website: https://lakehortonia.org/



2018 Darrin Fresh Water Institute Invasive Weed Survey. The area circled in red highlights the focus region for LCBP funded DASH harvesting.

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-017
GLFC	0100-319-003
Start Date:	6/19/2019
Close Date:	
Grant Amount:	$15,000.00
Non-federal Match:	$ 2,180.00
Total Amount:	**$17,210.00**

2020 Local Implementation Grant — in progress

Lake Hortonia Milfoil Management 2020

Project Summary

The Association is requesting funding to conduct Diver-Assisted Suction Harvesting (DASH) on Lake Hortonia. The DASH will focus on a 2-acre area divided between the public boat launch and adjoining dam near the Lake Hortonia country store and the public State of Vermont fishing access boat launch. The specific outputs of the project will be an approved QAPP (if required), calendar of the treatments, map and size of the treatment area, map/photos of disposal site, VT ANR permit for DASH, three quotes for DASH harvest, # of cubic yards of EWM collected, harvesting rate, progress and photos, # of composted cubic yards of EWM, photos and compost practices, copies of education and outreach materials and releases, and final report including the native plant regrowth in treatment area. Quarterly reports will be submitted during the period of the grant indicating progress through the project as well as a year summary discussing the suction harvesting conducted in the targeted area of Lake Hortonia and the results from subsequent invasive weed survey to be conducted by the Darrin Fresh Water Institute.

Outputs:

- calendar of the treatments
- map and size of the treatment area
- map/photos of disposal site
- # of cubic yards of EWM collected, harvesting rate
- # of composted cubic yards of EWM, photos and compost practices
- education and outreach materials and releases
- native plant regrowth in treatment area.

Outcomes:

- reduce the population of Eurasian water milfoil and prevent spread and further impact.

Organization: Lake Hortonia Property Owner Association

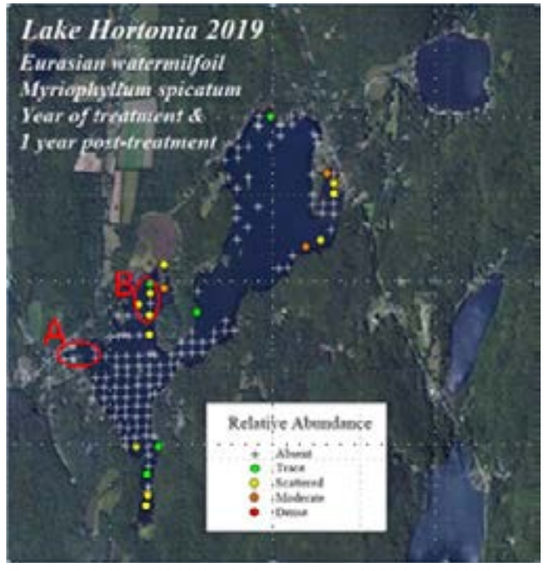
Contact Person: Thomas Batzinger

Mailing Address: 12 Kelly Meadow Road
Burnt Hills, New York 12027

Phone: 518 669-9828

E-mail: tmbatzinger@nycap.rr.com

Website: https://lakehortonia.org/



The area circled in red highlights the focus region for LCBP funded DASH harvesting. DASH in area "A" near the lake dam and boat launch will focused on re-emergence of Milfoil post 2019 treatment. DASH in area "B" will focus on harvesting milfoil near the fishing access boat ramp and the channel and surrounding water leading to the main body of the lake.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-047
EPA	346-003-001
Start Date:	4/17/2020
Close Date:	
Grant Amount:	$7,000.00
Non-federal Match:	$2,180.00
Total Amount:	**$9,180.00**

2020 Local Implementation Grant — in progress

LCA Watershed AIS Survey, Map Creation, Management Plan Development, and Boat Launch Steward Initiative

Project Summary

This project proposes a study to survey Lewis Creek, Bristol Pond, and Monkton Pond for aquatic invasive species, to create a management plan for Lewis Creek, and to establish a boat launch steward program. The Association will begin by collecting and reviewing existing plans, maps, and data, then survey the aforementioned waterbodies for aquatic invasive and non-native plant species. We will also establish a 12-week boat launch steward program at Bristol Pond. Outputs will include an aquatic invasive species distribution map for Lewis Creek, Bristol Pond, and Monkton Pond, an end of season report for the boat launch steward program, a management plan for Lewis Creek, outreach materials, a press release, and quarterly and final reports.

Outputs:

- aquatic invasive species distribution map for Lewis Creek, Bristol Pond, and Monkton Pond
- an end of season report for the boat launch steward program
- a management plan for Lewis Creek
- outreach materials

Outcomes:

- Aquatic invasive species spread prevention
- increased community awareness and education and outreach.

Organization: Lewis Creek Association

Contact Person: Katherine Kelly

Mailing Address: PO Box 313
Charlotte, VT 05445

Phone: (802) 488-5203

E-mail: lewiscreekorg@gmail.com

Website: www.lewiscreek.org

Lake Champlain Basin Program Boat Launch Steward inspecting a boat retrieving from Lake Champlain, South Hero, Vermont.

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-026
GLFC	100-328-003
Start Date:	
Close Date:	
Grant Amount:	$14,368.00
Non-federal Match:	$ 726.00
Total Amount:	**$15,094.00**

2019 Local Implementation Grant — concluded

Lincoln Pond Invasive Plant Management Initiative

Project Summary

This project developed a two-prong approach and carried on from May through December of 2019: the development of a comprehensive lake management plan based on an accurate and detailed survey of aquatic plant distributions in Lincoln Pond, and an educational outreach program targeted at local residents, young people, lake visitors, and regional water body users.

Outputs:

- 4 outdoor literature boxes installed at formal and informal boat access points
- stocking and distributing of literature over the course of the summer; door-to-door and at various locations throughout Essex County
- enhancing local High School instruction about AIS threats and prevention including a speaker from APIPP (who presented an AIS talk to 30 students) and a school field trip of 21 students to the ECHO Center in Burlington, Vermont.

Outcomes:

- increased AIS spread prevention awareness in Lincoln Pond community and local schools

Organization: Lincoln Pond Association

Contact Person: Debbie Maxwell

Mailing Address: 4172 Lincoln Pond Rd.
Elizabethtown, NY 12932

Phone: 518 603-7422

E-mail: lincolnpondassociation@gmail.com

Website: https://www.lincolnpond.org/

Boquet Valley high school students at ECHO.

Lake Champlain Basin Program

NEIWPCC Code: L-2019-034
GLFC 0100-323-003
Start Date: 4/7/2019
Close Date: **2/21/2020**
Grant Amount: $13,800.00
Non-federal Match: $ 2,208.00
Total Amount: **$16,008.00**

2019 Local Implementation Grant — in progress

Mapping Japanese Knotweed in Shoreline Regions along the Missisquoi and Trout Rivers

Project Summary

This project aims to identify and map the extent of the non-native species Japanese knotweed, from the headwaters of the Missisquoi in Lowell downstream to Enosburgh (excluding the portion in Canada) and the Trout River. Identifying the extent of knotweed – especially areas where it is not yet fully established – may help to mitigate future colonization of knotweed. After completion of the survey, towns will receive a 24x36" color map depicting the locations of this NNIS along the riverbanks within the town. They will also receive final reports, including basic biology and best management practices and recommendations for control of Japanese knotweed. The MRBA will present to town organizations and selectboards, and one area of knotweed identified during this study will be the site of a public workshop that demonstrates some control actions.

Outputs:

- identify and map the extent of the non-native species Japanese knotweed
- 24x36" color map depicting the locations
- best management practices and recommendations
- demonstration site with control actions

Outcomes:

- help to mitigate future colonization of knotweed.

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: (802) 393-0076

E-mail: mrba@pshift.com

Website: https://www.mrbavt.com/

Lake Champlain Basin Program

NEIWPCC Code: L-2019-052
GLFC 0100-323-003
Start Date: 5/23/2019
Close Date:
Grant Amount: $12,243.00
Non-federal Match: $ 3,920.00
Total Amount: **$ 16,163.00**

2019 Local Implementation Grant — concluded

Upper Saranac Lake Watershed Steward Program

Project Summary

The Upper Saranac Lake Watershed Stewardship Program is an integrated AIS spread prevention program seeking to reduce or prevent the spread of AIS from entering and departing the USL watershed. This is accomplished by inspecting individual watercraft and hand removing plant and animal materials, and indirectly by raising public awareness of AIS concerns. Upper Saranc Watershed Stewardship Program includes stewardship coverage at two NYSDEC Public Boat launches, Upper Saranac Lake at Back Bay and Fish Creek Public Campground. An AIS decontamination unit is positioned at the Back Bay Launch.

Outputs:

- lake stewards posted at the major points of entry and egress for boat traffic on Upper Saranac Lake
- 4179 inspections of all watercraft launched and retrieved at these sites. Stewards intercepted 20 watercraft carrying AIS
- 175 decontaminations were performed on watercraft utilizing a decontamination wash station at the Back Bay Boat launch site.
- educated 8,229 lake users to increase visitor understanding of AIS issues and spread prevention measures that can be utilized by the general public.
- detailed data collection

Outcomes:

- preventing the spread of Aquatic Invasive Species

Organization: Upper Saranac Foundation

Contact Person: Guy Middleton

Mailing Address: P.O. Box 564
Saranac Lake, NY 12983

Phone: 518 796-1052

E-mail: lakemanager@usfoundation.net

Website: usfoundation.net

Steward decontamination at Back Bay Boat launch.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-026
EPA	0995-003-001
Start Date:	4/16/2019
Close Date:	**2/11/2020**
Grant Amount:	$15,000.00
Non-federal Match:	$ 2,000.00
Total Amount:	**$17,000.00**

2019 Local Implementation Grant — concluded

Warren County SWCD Invasive Plant Project

Project Summary

The Warren County Soil and Water Conservation District partnered with the Village of Lake George and Queensbury Parks and Recreation to two trainings each on riparian and aquatic invasive plants for municipal staff and community members. These trainings were offered on June 12th at West Brook Conservation Initiative in Lake George and Gurney Lane Recreational Area in Queensbury on June 15th. With the remaining funds, the District offered an additional training with Lake George Land Conservancy at the Town of Hague Community Center on August 15th.

Outputs:

- hosted two trainings with information on managing riparian and aquatic invasive plant identification
- long-term management and monitoring
- proper management techniques
- spread prevention, disposal, alternative plantings
- Scouting and Restoration Tool-kits distributed.

Outcomes:

- prevent the infestation and spread of riparian and aquatic invasive species in the Lake Champlain Watershed
- increase AIS spread prevention awareness and enable private citizens to manage invasive species on their properties.

Organization: Warren County Soil and Water Conservation District

Contact Person: Maren Alexander

Mailing Address: 394 Schroon River Road
Warrensburg, NY 12885

Phone: 518.623.3119

E-mail: marenalexander@nycap.rr.com

Website: www.warrenswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-051
GLFC	0100-323-003
Start Date:	5/7/2019
Close Date:	**12/18/2020**
Grant Amount:	$6,792.00
Non-federal Match:	$2,009.00
Total Amount:	**$8,801.00**

2020 Local Implementation Grant — in progress

Warren County SWCD Invasive Plant Project

Project Summary

The Warren County Soil and Water Conservation District is partnering with Lake George Land Conservancy and Lake George Association to host three trainings on riparian and aquatic invasive plants for community members. The three trainings will discuss invasive plants within riparian zones and aquatic invasive plants. The objective of the training is to provide information on plant identification, proper management techniques, spread prevention, disposal, alternative plantings and monitoring for invasive plants. Attendees will have an understanding for biological, chemical, and mechanical control methods as well as short and long term monitoring of these plants.

Outputs:

- host three trainings on riparian and aquatic invasive plants long-term management and monitoring
- information on plant identification and proper management techniques
- spread prevention, disposal, alternative plantings and monitoring
- Scouting and Restoration Tool-kits.

Outcomes:

- prevent the infestation and spread of riparian and aquatic invasive species in the Lake Champlain Watershed.

Organization: Warren County SWCD

Contact Person: Maren Alexander

Mailing Address: 394 Schroon River Road
Warrensburg, NY 12885

Phone: 518.623.3119

E-mail: marenalexander@nycap.rr.com

Website: www.warrenswcd.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-022
EPA 346-003-001
Start Date: 4/3/2020
Close Date:
Grant Amount: $ 9,522.00
Non-federal Match: $ 1,005.00
Total Amount: **$10,527.00**

2020 Local Implementation Grant — in progress

Water chestnut control at Missisquoi National Wildlife Refuge

Project Summary

The Friends of Missisquoi NWR (Friends) will work with the Missisquoi National Wildlife Refuge (refuge) in a continued effort to control invasive species and Water Chestnut in 2020. The Friends have been working with the refuge to control invasive species, such as Phragmites, Japanese knotweed, yellow iris, poison parsnip, and water chestnut on refuge lands since 2007. The surveys conducted in 2017-2019 were done by volunteers and interns using a grid system in our floodplain forest and mapping using ArcCollector. Results are in collector as a map of presence/absence and relative abundance. USFWS and partners then identify the locations we want treated by creating a polygon based on funding and presence/abundance of the invasive species found. The proposed treatment areas for 2020 may be found in Appendix A (Appendix A. Map of proposed locations and species of invasive species control in riparian habitat).

Controlling populations of chestnut in this area protects one of the basin's most significant wetland areas as well as helping prevent the spread of this aquatic invasive in the northern portion of the lake.

Outputs:

- waterchestnut harvesting and composting
- control of Phragmites, Japanese Knotweed, poison parsnip and yellow iris coordination
- press release announcing the grant award
- photos of the work and a poster used at the refuge Visitor's Center.

Outcomes:

- improving wetland biological integrity by controlling invasive species on Missisquoi NWR
- preventing the spread of invasive species into unaffected areas within the refuge and in the northern lake.

Organization: Friends of Missisquoi NWR, Inc.

Contact Person: Rich Kelley

Mailing Address: 29 Tabor Road
Swanton, VT 05488

Phone: 802-868-4781

E-mail:

Website: http://friendsofmissisquoi.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2020-033
GLFC 100-323-003
Start Date: 4/10/2020
Close Date:
Grant Amount: $8,000.00
Non-federal Match: $1,200.00
Total Amount: **$9,200.00**

2019 Program Grant

concluded

Adaptive Cormorant Management on Lake Champlain

Project Summary

The purposes of this project were to mitigate damage caused by cormorants, to provide technical assistance and direct management activities on Vermont Fish and Wildlife Departments (VFWD) lands within the Vermont Lake Champlain Basin. Furthermore, the project met objectives of the VFWD Lake Champlain Islands Management Plan by managing and dispersing cormorants to protect current vegetation and wildlife diversity on VFWD owned islands and WMAs.

Outputs:

- 43 field visits to monitor cormorant activity, island habitat, wildlife diversity, and property damage
- implemented direct non-lethal techniques designed to reduce DCCO damage by denying prolonged access to roost, loaf and/or nest on VFWD owned lands on Lake Champlain resulting in 2,964 total dispersed cormorants
- provided technical assistance to 12 private property owners experiencing damage and help them with the state and federal permitting process.

Outcomes:

- protect vegetation and habitat used by other wildlife species
- prevent damage to private property from feces or rooftop nesting activities
- protect native vegetation or unique island habitats
- protect sport fish.
- support control of cormorants on Lake Champlain to supplement efforts already underway by regional wildlife managers

Organization: VT Fish and Wildlife Department

Contact Person: Mark Scott

Mailing Address: 1 National Life Drive, Davis 2
Montpelier, VT 05620-3702

Phone: (802)-777-4217

E-mail: mark.scott@vermont.gov

Website https://vtfishandwildlife.com/

Rock Island Eagle Effigy

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-075
GLFC	0100-310-030
Start Date:	7/24/2019
Close Date:	**9/22/2020**
Grant Amount:	$16,000.00
Non-federal Match:	
Total Amount:	**$16,000.00**

2019 Program Grant

concluded

Assessing the Presence of Invasive Quagga Mussels in the Richelieu River and Lake Champlain using Environmental DNA (eDNA)

Project Summary

This project conducted planning-level early detection aquatic resource surveys to evaluate the potential presence of quagga mussels (*Dreissena bugensis)* in Lake Champlain. Quagga mussels are an aggressive invasive species with the capacity to adapt to more diverse environments and present greater phenotypic plasticity than zebra mussels (*Dreissena polymorpha*) and, as such, can out-compete even zebra mussels when both invasive species are present. A positive identification of quagga mussels in the Richelieu River and its hydrologic connectivity with Lake Champlain is of concern. Application of eDNA technology has revolutionized biodiversity monitoring and has been especially useful in detecting rare species, enabling rapid response to early arrival of invasive species. Testing for the presence of eDNA is a relatively new scientific method that allows small traces of DNA to be detected in water samples in the field without having to directly collect or observe the target organisms themselves. The most northerly sampling site in the Richelieu River has been selected for field positive controls because quagga mussels have been identified in that area. One more site in the Richelieu River has been selected to determine the extent of their range in the river moving south towards Lake Champlain. Three sites in Lake Champlain have been identified to determine if and where the mussels have spread into the lake system, and Shelburne Pond is chosen as the field negative control site because there are no quagga mussels present in that water body.

Outputs:

- sampling was conducted at different depths and distances from shore to target 4 field sites in northern Lake Champlain that are in proximity of Marinas and the confluence with the Richelieu River. Two sites were sampled in the Richelieu River, where quagga mussels have been reported to have been observed.

Outcomes:

- using eDNA to determine the presence of invasive bivalves proved to be successful and program could be expanded and implemented to monitor for the potential spread and invasion of quagga mussels into Lake Champlain.

Organization: Stantec Consulting Services Inc.

Contact Person: Jake Riley

Mailing Address: 30 Park Drive
Topsham, ME 04086

Phone: 917-575-1283

E-mail: jake.riley@stantec.com

Website www.stantec.com

Site RR1 in the Chambly Canal in Quebec, CAN where visual mussel searches were conducted by Professor Ellen Marsden of the University of Vermont.

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-078
GLFC	0100-310-026
Start Date:	6/18/2019
Close Date:	**10/14/19**
Grant Amount:	$13,547.00
Non-federal Match:	$ 7,000.00
Total Amount:	**$20,547.00**

2018 Program Project — in progress

Boat Launch Stewards (LCBP)

Project Summary

The 2020 season was the 14th year of the Lake Champlain Boat Launch Steward Program - the Lake Champlain Basin Program's three pronged approach to overland transport of aquatic invasive species (AIS) spread prevention is boat inspection and AIS removal, AIS education, and data collection and analysis.

Outputs:

- Lake stewards greeted, interviewed, and shared AIS information with boaters at 17 different launch sites around Lake Champlain, including two sites on Missisquoi Bay, Québec. Decontamination stations were also offered at 3 of the launches staffed by LCBP stewards.
- The stewards spent a total of 534 days at the launches from Memorial Day weekend until the end of September. Stewards talked with 25,636 boaters and inspected 12,314 vessels launching and retrieving, averaging 21 survey records a day per steward.
- Of the 11,148 vessel groups surveyed, 11.5% of their vessels were found to harbor aquatic plants, animals, or detritus, and 2.8% were found to harbor one or more aquatic invasive species. 86.4 percent of all boaters, when interviewed, reported to have taken one or more aquatic invasive species spread prevention measure.

Outcomes:

- Reduce the spread of AIS within the Lake Champlain Basin.
- Prevent the introduction of aquatic invasive plants, animals, and pathogens via overland transport.
- Increase public understanding of, involvement in, and behavior change related to the spread, prevention, and control of AIS through education and outreach programs.

Organization: LCBP

Contact Person: Meg Modley

Mailing Address: 54 West Shore Road, Grand Isle, VT 05458

Phone: 802 372-3213 x 215

E-mail: mmodley@lcbp.org

Website: https://www.lcbp.org

NEIWPCC Code: N/A
EPA 346-003-001
Start Date: 4/1/2018
Close Date:
Grant Amount: $121,484.00
Non-federal Match:
Total Amount: **$155,000.00**

Lake Champlain Basin Program

2018 Program Project — in progress

Champlain Canal Barrier

Project Summary

Senator Leahy secured $200,000.00 in Great Lakes Fishery funds to use as match for the Champlain Canal Barrier Feasability Study. Funds will be used to leverage a USACE Section 542 grant with the NYSCC to conduct the study.

In October 2018 NEIWPCC, USACE, Prince Hydro, LCBP, NYSDEC, USFWS, NYSCC met on site to review canal hydrology and operation.

Outputs:

- An executed agreement between the USACE and a local sponsor to initiate the Champlain Canal barrier feasability study.
- A draft alternatives report is under development

Outcomes:

- The feasibility study will outline options to reduce the risk of AIS transport through the Champlain Canal.

Organization: LCBP/NEIWPCC

Contact Person: Meg Modley

Mailing Address: 54 West Shore Road, Grand Isle, VT 05458

Phone: 802 372-3213 x 215

E-mail: mmodley@lcbp.org

Website: https://www.lcbp.org

NEIWPCC Code: N/A
GLFC
Start Date: 9/10/2018
Close Date:
Grant Amount: $200,000.00
Non-federal Match:
Total Amount: **$200,000.00**

Lake Champlain Basin Program

2019 Program Grant

concluded

Missisquoi Bay Boat Launch Stewards 2019

Project Summary

The seasonal Québec boat launch steward interns worked to prevent the unintentional introduction or spread of aquatic invasive species in and out of Lake Champlain, inform the public of aquatic invasive species issues and how they can help with spread prevention, and gather data on boat launch and boater use of Lake Champlain to better inform resource managers about recreational use of Lake Champlain and vectors of aquatic invasive species introduction. The Québec stewards were hired by OBVBM and trained and equipped with supplies by the LCBP. Québec stewards collected the exact same data as the U.S. boat launch stewards and all data from Québec was similarly uploaded to a cloud for data management. The Québec stewards attended the Vermont boat launch steward training program and used LCBP issued iPads for data collection.

Outputs:

- two stewards stationed at public boat launches around Missisquoi Bay in Quebec
- data collection - 555 watercrafts were processed, 39 of which captured AIS including 1 Curly Leaf Pondweed (launching), 36 Eurasian watermilfoil (8 launching, 28 retrieving), 1 Variable-leaf Milfoil (retrieving) and 2 Zebra Mussel (1 launching, 1 retrieving). The total number of people reached at this boat launch was 1461.

Outcomes:

- control the introduction, spread, and impact of nonnative nuisance species in order to preserve the biological/ecological integrity of the Lake Champlain ecosystem
- increased AIS spread prevention and education and outreach in Missisquoi Bay, QC.

Organization: OBVBM

Contact Person: Frédéric Chouinard

Mailing Address: 2 Adhemar-Cusson
Bedford, Quebec, Canada, JOJ 1AO

Phone: 450-248-0100

E-mail: Frederic.chouinard@obvbm.org

Website: http://www.obvbm.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2019-069
GLFC 0100-323-003
Start Date: 5/30/2019
Close Date: **11/21/2019**
Grant Amount: $20,000.00
Non-federal Match: $ 1,200.00
Total Amount: **$21,200.00**

2020 Program Grant

in progress

Missisquoi Boat Launch Stewards 2020

Project Summary

Organisme de bassin versant de la baie Missisquoi (OBVBM) will support the addition of two boat launch stewards to the Lake Champlain boat launch steward program who will work in the Missisquoi Bay Quebec portion of Lake Champlain and its watershed to provide education and outreach concerning aquatic invasive species (AIS) and to survey and intercept AIS through courtesy boat inspections. OBVBM will hire two stewards to work from early June to late August and the stewards will be trained and outfitted with equipment and uniforms by the Lake Champlain Basin Program. The data collected by the OBVBM stewards will augment the existing Lake Champlain boat launch steward program by expanding coverage to Quebec for a fourth year.

Outputs:

- two stewards stationed at public boat launches around Missisquoi Bay in Quebec
- data collection

Outcomes:

- control the introduction, spread, and impact of nonnative nuisance species in order to preserve the biological/ecological integrity of the Lake Champlain ecosystem

Organization: OBVBM

Contact Person: Frédéric Chouinard

Mailing Address: 2 Adhemar-Cusson
Bedford, Quebec, Canada, JOJ 1AO

Phone: 450-248-0100

E-mail: Frederic.chouinard@obvbm.org

Website: http://www.obvbm.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2020-037
GLFC 0100-328-003
Start Date: 4/7/2020
Close Date:
Grant Amount: $14,000.00
Non-federal Match: $ 1,200.00
Total Amount: **$15,200.00**

THRIVING COMMUNITIES

GOAL: Communities have an appreciation and understanding of the Basin's natural and cultural resources, and the capacity to implement actions that will result in sound stewardship of resources while maintaining strong local economies.

NFCT

Program Highlights

In FY2020, LCBP/CVNHP staff:

- Hosted the online 2020 CVNHP International Summit Knowledge Cafés to develop budget priorities, outreach ideas, and partnership opportunities.
- Celebrated the 100th Anniversary of the 19th Amendment and woman suffrage with travelling interpretive exhibits.
- Launched a redesigned and updated CVNHP website and inaugural edition of the Champlain Valley Heritage Times e-newsletter.
- Provided technical assistance to communities in developing interpretation programs and products.
- Provided support and coordination of technical workshops, data acquisition, and public outreach for the International Joint Commission's flood study of reducing water levels and flood vulnerability.
- Administered Emergency Organizational Support g rants to support watershed groups suffering financial hardship as a result of the COVID-19 pandemic.

LCBP

Local Grant Highlights

- **Women of Shelburne:** The Shelburne Historical Society created an exhibit and a companion guide for teachers to honor the contributions women have made to build community.
- Ladies of the Lake: The Lake Champlain Maritime Muse- um developed digital and travelling banner exhibits to highlight female captains on Lake Champlain.
- Swanton Heritage Water Trail: The Northern Forest Ca- noe Trail engaged volunteers and community partners in the creation of two interpretive signs at a "gateway" to the Missisquoi River in Mansonville, QC.
- South Champlain Historical Ecology Project: SCHEP offered school and community programs to increase knowledge of culture and history, including Abenaki heritage, in the southern part of Lake Champlain.


SCHEP

2020 Program Grant

in progress

Digitizing and Preserving Champlain's Photographic Heritage

Project Summary

This project will complete the inventory, cataloging, and proper storage and preservation of the Samuel de Champlain History Center's photograph collection. This collection, which at the present time is only scantly catalogued and stored in a manner unsuitable for long-term stability, is a wide-ranging and rich account of local town and village history, geography and demography; within it are included industrial, commercial, religious and cultural scenes as well as individual and family portraiture depicting area families with local roots and connections that range across the Champlain Valley region. One large and particularly significant collection of photos traces the personnel and physical plant of the Sheridan Iron Works, a major industrial and economic center of the village for more than a century.

Outputs:

- catalog, examine and condition report the approximately 500-600 photographs in its current collection, digitize the images by scanning them, and rehouse and store them properly for future preservation
- digital collection will be important communication tool

Outcomes:

- increase public access to collections and widen the range and visibility of the photographic treasures and the regional cultural, economic and environmental phenomena they depict.

- preservation will maintain the "material" in "material culture," and proper storage and organization will keep the original photographs as well as their digital avatars available to researchers and community members for years to come.

Organization: Samuel de Champlain History Center

Contact Person: Celine Paquette

Mailing Address: PO Box 3333, 202 Elm St.
Champlain, NY 12919

Phone: (518) 298-1609

E-mail: cpaquette@primelink1.net

Website: http://moorsfieldpress.com/hc/samuel_de_champlain_history_center.html

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	PO 100053
GLFC	0100-328-005
Start Date:	1/10/2020
Close Date:	
Grant Amount:	$3,500.00
Non-federal Match:	$2,250.00
Total Amount:	**$5,750.00**

2019 Program Grant

concluded

Furthering Bixby Library's Collections Management Plan

Project Summary

Bixby Memorial Free Library completed its CVNHP Collections Grant-funded project: Furthering Bixby Library's Collection Management Plan in 2019. In addition to its work as a traditional library, Bixby has served as a repository for local, regional, and national cultural material dating from the pre-contact era to the mid-twentieth century. Previously, these materials have not been managed according to best practices of the field. Staff developed and the Bixby board approved an Objects and Artifacts Management Policy to bring these cultural materials under legal Bixby custody for the first time. The 2019 work also completed the 2018 Inventory Project, which inventoried more than 90 percent of Bixby's vast Objects and Artifacts Collections; and rehoused painting and print collections in a better temperature-

Outputs:

- inventory of all non-Native American Object and Artifact Collections and associated policy
- rehoused painting and print collections

Outcomes:

- improved public access to Collections both digitally and physically
- preparedness for future interpretation

Organization: Bixby Memorial Free Library

Contact Person: Patricia Reid

Mailing Address: 258 Main Street
Vergennes, VT 05491

Phone: (802) 877-2211

E-mail: patricia.reid@bixbylibrary.org

Website: http://bixbylibrary.org/

NEIWPCC Code: PO 12684
NPS 0998-013
Start Date: 2/6/2019
Close Date: **12/10/2019**
Grant Amount: $ 5,200.00
Non-federal Match: $ 9,883.00
Total Amount: **$14,312.73**

2020 Program Grant

in progress

Furthering Bixby Library's Collections Management Plan
NAGPRA Compliance and Repatriation

Project Summary

Funding will support continued fulfillment of Bixby Library's Collections Management Plan to comply with standards of the Native American Graves and Repatriation Act (NAGPRA) under National Park Service jurisdiction (NPS), facilitate repatriation of culturally significant items to qualified Native American groups, and educate local public about these efforts.

Outputs:

- NAGPRA inventories and summaries posted online via NPS and shared with registered Native American groups who claim for repatriation. At project conclusion, relevant items will be in the repatriation process.
- Staff will educate public on repatriation policies via press releases and in the library's monthly newslette

Outcomes:

- increased public awareness in the local community about the importance of repatriation and appropriate institutional action to return items of cultural value to their homes
- elevating Bixby as a community leader in the public repatriation of Native American cultural material and encouraging other groups to follow its example.

Organization: Bixby Memorial Free Library

Contact Person: Patricia Reid

Mailing Address: 258 Main Street
Vergennes, VT 05491

Phone: (802) 877-2211

E-mail: patricia.reid@bixbylibrary.org

Website: http://bixbylibrary.org/

NEIWPCC Code: LS-2019-100
NPS 988-014
Start Date: 12/18/2019
Close Date:
Grant Amount: $ 7,400.00
Non-federal Match: $ 7,609.00
Total Amount: **$15,009.00**

2019 Local Implementation Grant — concluded

Jahaziel Sherman's Steamboats: Collection Inventory, Digitization and Interpretation of a Champlain Valley Steamboat Pioneer

Project Summary

LCMM inventoried and digitized collections and developed new interpretive exhibits and researched resources related to steamboat pioneer Jahaziel Sherman of Vergennes and the steamboat era on Lake Champlain. The museum will identify, inventory, and digitize materials from LCMM's collection and update our holdings to reflect recent nautical archaeology of the lake's shipwrecks; create digital interpretive tools such as ArcGIS StoryMaps and resource files for online access; and create new interpretive exhibits.

Outputs:

- two interpretive exhibits, a digital exhibit, and online research resources

Outcomes:

- preservation, enhanced interpretation, and improved access to LCMM's collections related to Jahaziel Sherman and Lake Champlain Steamboats

Organization: Lake Champlain Maritime Museum

Contact Person: Eloise Beil

Mailing Address: 4472 Basin Harbor Rd.
Vergennes, VT 05491

Phone: (802) 475-2022

E-mail: Eloiseb@lcmm.org

Website: https://www.lcmm.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2019--011
NPS 0988-013
Start Date: 3/26/2019
Close Date: **1/6/2020**
Grant Amount: $ 5,000.00
Non-federal Match: $21,584.93
Total Amount: **$26,584.93**

2020 Program Grant — in progress

Mount Independence Artifact Conservation Project

Project Summary

This project seeks to conserve significant historic metal artifacts recovered through archaeological investigations and surface collections at Mount Independence in Orwell, Vermont, from the 1980s onward and through private collecting before the State of Vermont's acquisition of the property in the 1960s. Mount Independence is a National Historic Landmark, a priority 1 principal site in the National Park Service Revolutionary War and War of 1812 study, one of the significant properties in the Champlain Valley National Heritage Partnership for the Making of Nations theme, and is considered one of the best-preserved archaeological sites of the American Revolution.

Project partners include: Mount Independence Coalition; Mount Independence State Historic Site; Division for Historic Preservation; Vermont Agency of Development and Community Affairs; Lake Champlain Maritime Museum Artifact Conservation Laboratory

Outputs:

- The conservation of high priority historic metal artifacts - primarily from the American Revolutionary period - recovered from the Mount Independence area.
- analyze the inventory
- create a list of the metal artifacts and determine priorities for conservation based on significance and condition.

Outcomes:

- The long-term preservation, stewardship, and protection of these historic metal artifacts, meeting the State of Vermont's goal of holding them in the public trust for research, education, public programming, and exhibition.

Organization: Mount Independence Coalition

Contact Person: Elsa Gilbertson

Mailing Address: Chimney Point State Historic Site
8149 VT Route 17W
Addison, VT 05491

Phone: (802) 759-2412

E-mail: elsa.gilbertson@vermont.gov

Website: https://mountindependence.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2019-093
GLFC 0100-328-005
Start Date: 7/20/2020
Close Date:
Grant Amount: $ 7,500.00
Non-federal Match: $ 3,952.00
Total Amount: **$11,452.00**

2020 Program Grant

in progress

Pavillion Collections Project

Project Summary

Support is sought to conduct research and process artifacts acquired by Fort Ticonderoga's founders and housed in the National Historic Landmark, the Pavilion, and install new exhibits in the restored Pavilion relating to the museum's cultural heritage and museum founder Sarah Pell's lasting legacy and involvement in the women's suffrage movement.

Outputs:

- complete updated catalog records with new research, photographs, and condition reports
- develop object lists and draft label copy for core and temporary exhibitions in the restored Pavilion. The Covid-19 crisis has slowed construction work on the Pavilion and the exhibits will not be able to be installed
- develop an exhibition plan to be implemented prior to the formal exhibit opening in 2021
- provide digital media to be circulated during this anniversary year (200 years of preservation at Ticonderoga, and 100 years of suffrage) on Fort Ticonderoga's website that can more widely circulate the content about Sarah Pell and Ticonderoga's story prior to the exhibit installation

Outcomes:

- The telling of the story of the preservation, restoration, and legacy of Ticonderoga and the Pavilion, in the context of Sarah Pell's work, ensuring that the museum continues to provide meaningful links between past and present.

Organization: Fort Ticonderoga Association

Contact Person: Martha Strum

Mailing Address: PO Box 390
Ticonderoga, NY 12883

Phone: 518-585-2821

E-mail: mstrum@fort-ticonderoga.org

Website: fortticonderoga.org

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2019-097
GLFC 0100-328-005
Start Date: 11/25/2019
Close Date:
Grant Amount: $ 7,500.00
Non-federal Match: $24,690.00
Total Amount: **$32,199.00**

2019 Program Grant

concluded

Shelburne Historical Society Document Scanning and Exhibit Development Project

Project Summary

The Town of Shelburne renovated its historic town hall, and created a new space for the Shelburne Historical Society (SHS). Using a $3,800 CVNHP Collections Grant, the SHS now has a place for exhibiting displays created by the society highlighting topics of local history. The digital archiving equipment and the procedures outlined in the protocol is essential for the SHS to begin to care for the existing collection and curate new collection acquisitions. The grant enabled us to develop a procedure and operational process to inventory and conserve the collection of Shelburne historical artifacts in a digital format; and to create ways to make this collection accessible both onsite and online to enhance the usefulness for the public.

Outputs:

- develop a procedure and protocols for document identification, digitizing, and archiving in collaboration with NEDCC
- create an archiving center with tools to archive and catalog the digital resources
- test and improve the operational readiness of the tools with staff and students
- generate onsite displays and activities to engage the public and community.

Outcomes:

- preservation, enhanced interpretation, and improved access to LCMM's collections related to Jahaziel Sherman and Lake Champlain Steamboats

Organization: Shelburne Historical Society

Contact Person: Dorothea Penar

Mailing Address: PO Box 101
Shelburne, Vermont 05482

Phone: 802-985-3761

E-mail: Shelburne1763@gmail.com

Website: https://www.facebook.com/Shelburne-Historical-Society-882685051874598/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-003
NPS 0988-013
Start Date: 3/26/2019
Close Date: **12/10/2019**
Grant Amount: $ 3,800.00
Non-federal Match: $ 6,527.00
Total Amount: **$10,327.00**

2019 Local Implementation Grant — concluded

South Champlain Historical Ecology Project - 3D Imaging Subproject

Project Summary

The South Champlain Historical Ecology Project (SCHEP) initiated the 3D Imaging Subproject in 2019–2020. This project was designed to improve documentation of Precontact and Historical artifacts from the south Lake Champlain area and demonstrate the efficacy of applied 3D technology. A total of 120 artifacts were scanned and 88 3D models were published to a free web-based forum where they can be downloaded for educational, outreach, and research purposes. This work served as a pilot study for the development of permanent online database for 3D models of local artifacts. As a result of this project, four undergraduates were trained in 3D scanning and Castleton University agreed to create a 3D classroom on campus. The 3D classroom will be used to expand this initial project and will function as a training center to offer regional trainings for those involved in heritage management professions.

Outputs:

- scan and upload a total of at least 100 artifacts to a new permanent digital database displayed on the Castleton University website
- development of a detailed scanning, artifact handling, and preservation protocol
- established a database of 3D models of local artifacts to be used for educational, outreach, and research purposes.

Outcomes:

- database will provide significant new avenues for public outreach and education, allow for more sophisticated artifact analyses, and serve as a permanent archive for at-risk artifacts in local private collections
- demonstrated the use of 3D technology in heritage management and helped establish a training center for emergent technology

Organization: South Champlain Historical Ecology Project

Contact Person: Matthew D. Moriarty

Mailing Address: Castleton University
Leavenworth Hall Rm. 152
Castleton, VT 05735

Phone: (802) 353-3465

E-mail: SCHEP.Research@gmail.com

Website: https://www.facebook.com/schep.research/

NEIWPCC Code: LS-2018-021
NPS 0998-013
Start Date: 2/4/2019
Close Date: **9/29/2020**
Grant Amount: $9,000.00
Non-federal Match:
Total Amount: **$9,000.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2020 Program Grant — in progress

The Lake George Historical Association Inventory Collections Initiative

Project Summary

The LGHA will continue inventory identification for digital database entry throughout 2020. Over its 50 years LGHA's volunteer boards, officers and curators have changed hands numerous times; artifact and archival organization has suffered measurably due to inconsistency.

Outputs:

- urgently needed continuation of cataloguing work resulting in an accessible digital database (a critical historical resource for the Lake Champlain Basin)
- a pilot volunteer program to train students, interns and community volunteers for ongoing museum assistance and interaction
- conservation of rare items
- a series of meetings to evaluate green retrofit capacity for the museum building and for partial cost of UV window protection materials

Outcomes:

- support for needed historical and archeological research and accelerate the identification, evaluation, protection and interpretation of heritage resources including ethnographies of the cultures within the CVNHP

Organization: Lake George Historical Association

Contact Person: Lisa Adamson

Mailing Address: Box 472
Lake George, NY, 12845

Phone: 518.307.7842

E-mail: ladamson27@gmail.com

Website: https://www.lakegeorgehistorical.org/

NEIWPCC Code: L-2019-089
GLFC 0100-328-005
Start Date: 11/19/2019
Close Date:
Grant Amount: $ 7,500.00
Non-federal Match: $ 7,040.00
Total Amount: **$14,540.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2018 Local Implementation Grant — concluded

Restoring the Ausable River's East Branch - Building a Road Map for Resilience

Project Summary

AsRA advanced a multi-year effort to restore equilibrium and habitat diversity to the East Branch of the Ausable River. In 2016-17, AsRA completed a stream stability assessment on the 33-mile East Branch study reach that identified and quantified erosional areas, and classified stream types and stability indicators by subreach. In 2018-19 AsRA gathered and assessed detailed geomorphic data describing the physical characteristics of 12 miles of the study reach. Additional funding through the Governor's Office of Storm Recovery (GOSR) was used for the remaining stream miles of the study area.

Outputs:

- graphics and data describing the slope and riffle pool pattern of the study reach
- detailed geomorphic surveys of three reference reaches
- a network of temperature loggers, and additional comparative cross-sections
- drone imagery was collected for mapping and illustration.
- compilation of data captured in graphics, maps, and written summaries to share among practitioners of natural channel design, management agencies, towns, landowners, and other stakeholders.

Outcomes:

- detailed road-map for systematically restoring the East Branch that: is based in river science; is informed and discussed by the community and stakeholders
- will benefit stream health, habitat diversity; and will create compatible flood and climate change resilience in communities.
- a compilation of data from both phases captured in graphics, maps, and written summaries, will be used to create a body of information to share among practitioners of natural channel design, management agencies, towns, landowners, and other stakeholders.

Champlain Valley National Heritage Partnership

Organization:	Ausable River Organization
Contact Person:	Kelley Tucker
Mailing Address:	PO Box 8 Wilmington, NY 12997
Phone:	518.637.6859
E-mail:	ktucker@ausableriver.org
Website:	www.ausableriver.org

Assessing a severely eroded and actively eroding bank that blocks access to a key floodplain in the Town of Jay on the East Branch of the Ausable River.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12512
EPA	0994-002-001
Start Date:	2/23/2018
Close Date:	**10/10/2019**
Grant Amount:	$19,980.00
Non-federal Match:	$ 2,250.00
Total Amount:	**$22,230.00**

2018 Local Implementation Grant — concluded

Town of Westport Culvert Replacement

Project Summary

An aluminium box culvert was constructed and replaced on the north end of MacMahon Rd. The new culvert was implemented to address two 30" culverts that continually became dammed with debris. The construction of the culvert took place over the course of two weeks in the beginning of June. The digging, placement, and filling of the site took place over the course of 3 weeks from July 22nd to August 13th. The work was done by The Town of Westport, Essex County Soil and Water Conservation District, and Essex County DPW. The culvert is on a tributary to Hoisington Brook and will stabilize the road crossing, provide aquatic organism passage and make the crossing more flood resilient for the Town.

Outputs:

- purchase and installation culvert and other erosion and sediment control structures to iclude a sediment basin
- restoration of one mile of stream habitat above the culvert

Outcomes:

- new culvert is on a tributary to Hoisington Brook and will stabilize the road crossing, provide aquatic organism passage and make the crossing more flood resilient for the Town.
- reduction of phosphorous and sediment loading into Lake Champlain
- reduction of storm water runoff
- protection and restoration of native species
- preserve and connect critical habitat areas of native species
- reduction of fragmentation by man-made structures such as roads, culverts, and other human landscape features

Organization:	Essex County SWCD
Contact Person:	Alice Halloran
Mailing Address:	3 Sisco St. Westport, NY 12993
Phone:	518-962-8225
E-mail:	dreckahn@westelcom.com
Website:	http://www.essexcountyswcd.org/

The two pipes are not working in this application/site. During storm events this culvert clogs up, backs up water, which then washes out the road. This is a problem area that causes crews to attend to it every time Westport gets a large storm. Photos of the inlet also depict an unstable slope due to past washouts.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12550
EPA	0994-002-001
Start Date:	4/2/2018
Close Date:	**10/8/2019**
Grant Amount:	$20,000.00
Non-federal Match:	$ 5,000.00
Total Amount:	**$25,000.00**

2019 Local Implementation Grant — concluded

Exploring the Natural History of Lake Champlain's Salmonid Species

Project Summary

the Lake Champlain Maritime Museum (LCMM), in partnership with U.S. Fish and Wildlife Service (USFWS), and local schools, carried out education programs on salmonid species local to the Champlain Basin, as well as a series of professional development talks to inform educators and interpreters about local conservation efforts around the 2019 international *Year of the Salmon* initiative. Research and preparation for the topic increased LCMM's ability to interpret the *Year of the Salmon* and allowed our Watershed Science Apprenticeship program, taught by museum and USFWS educators, to focus deeply on the topic with high school students. All programs explored and interpreted the natural history and management issues around Atlantic salmon and engaged participants in hands-on activities and excursions. More than 90 students from Vermont and New York were educated about Salmon in Lake Champlain, as were 69 educators and interpreters through professional development presentations.

Outputs:

- develop a series of watershed science units related to Lake Champlain salmonid species
- implemented five salmon educational programs in VT and NY schools for 91 students
- four professional development presentations for 69 educators.
- plan a professional development course and enroll LCMM staff, outdoor educators and volunteers in the course.

Outcomes:

- connect, promote, and improve cultural and natural heritage sites through interpretation.

Organization: Lake Champlain Maritime Museum

Contact Person: Elizabeth Lee

Mailing Address: 4472 Basin Harbor Road
Vergennes, VT 05491

Phone: 802.475.2022 x 102

E-mail: elizabethl@lcmm.org

Website: https://www.lcmm.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2019-001
GLFC 0100-323-005
Start Date: 2/4/2019
Close Date: **11/26/2019**
Grant Amount: $7,500.00
Non-federal Match: $1,321.00
Total Amount: **$8,821.00**

2019 Local Implementation Grant — in progress

Gateway to the Mississquoi: An Interpretive Signage Project for Mansonville, Québec

Project Summary

This project will engage volunteers and community partners in the creation of two interpretive signs at a "gateway" to the Missisquoi River in Mansonville, Quebec. Panels will feature maps of the area and information on the river valley's unique cultural and natural history. In keeping with the "Year of the Salmon" theme, content will include information on the River's historic and current fisheries, the importance of the Northern Green Mountains ecoregion, and the impressive conservation efforts underway. Signage will also inform the public about the region's wealth of recreational opportunities.

Outputs:

- design of new interpretive material
- creation of two interpretive panels

Outcomes:

- greater appreciation of the region's natural and cultural history
- increased awareness of the recreational opportunities of the Lake Champlain Basin

Organization: Northern Forest Canoe Trail

Contact Person: Noah Pollock

Mailing Address: PO Box 565
Waitsfield VT 05673

Phone: 802-496-2285 x2

E-mail: noah@northernforestcanoetrail.org

Website: https://www.northernforestcanoetrail.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2019-012
GLFC 0100-323-005
Start Date: 3/26/2019
Close Date:
Grant Amount: $3,408.00
Non-federal Match: $1,034.00
Total Amount: **$4,442.00**

2019 Local Implementation Grant — concluded

International Lake ChamplainTasting Trail: Exploring the Conservation Movement through Agriculture

Project Summary

The Vermont Fresh Network created unified interpretive materials for the Vermont portion of the International Tasting Trail, to be used by project partners and individual places along the Trail telling the story of modern food production, sustainable agriculture, and the agricultural heritage of the Lake Champlain Basin. The Vermont Fresh Network used an online platform and digital communication tools to solidify and build a solid foundation of awareness for the public, Trail members, and international partners of the Lake Champlain Tasting Trail. This allowed further develop partnerships that connect Vermont agritourism with other sectors, like recreation and the arts. From cheesemakers, cideries, farmstands, pick-your-own berry farms, and orchards, to restaurants and on from there, the Lake Champlain Tasting Trail takes travelers on a journey in both Vermont and the Lake Champlain region, but also on journey through the local food and beverages of the area.

Outputs:

- Digital and printed materials describing food, agriculture and the use of natural resources along the trail
- common signage designating places along the trail
- evaluation of trail performance and potential future partnerships.

Outcomes:

- greater appreciation of the region's natural and cultural history
- support of a public information program that emphasizes recreational ethics, public safety, sustainable use, and stewardship of cultural and natural resources.

Organization: Vermont Fresh Network

Contact Person: Tara Pereira

Mailing Address: 54 Bridge Street
Richmond, VT 05477

Phone: (802) 434-2000

E-mail: tara@vermontfresh.net

Website: https://www.diginvt.com/trails/detail/lake-champlain-tasting-trail

DIG IN VERMONT
LAKE CHAMPLAIN TASTING TRAIL
Official Site

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-005
NPS 0988--013
Start Date: 2/4/2019
Close Date: **8/11/2020**
Grant Amount: $7,450.00
Non-federal Match: $2,000.00
Total Amount: **$9,450.00**

2019 Local Implementation Grant — concluded

Missisquoi River Fishing Platform

Project Summary

The Missisquoi River Basin Association and its partners improved awareness of and access to the Missisquoi River in the Village of North Troy, Vermont. The MRBA worked with the Village of North Troy and the Troy School to improve two publicly-owned parcels abutting the river. At the north end of the Village, MRBA installed four benches along a winding trail that leads through 116 under-utilized acres owned by the Village, to try to lure visitors through this amazing property and down to the serene and beautiful river. Further south along the river, the MRBA and the Vermont Youth Conservation Corps constructed a set of steps, a 22-ft bridge, and numerous bog bridges to improve a trail on School-owned property; this trail is open to the public, and will be used by the school to increase outdoor education opportunities along the river.

Outputs:

- a public fishing platform along the Missisquoi River and a location to bring community members together to share the river, the area, and to share fishing tips and skills with the next generation.
- Improved access to the Missisquoi River through the installation of trail structures.

Outcomes:

- encourage visitors and residents to North Troy to engage with the river and feel a stronger connection with the water that flows through the Village, and the resources that move along with it
- encourage recreation and use of this beautiful Village-owned property

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: mrba@pshift.com

Website: https://www.mrbavt.com/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-002
GLFC 0100-323-005
Start Date: 2/5/2019
Close Date: **11/25/2020**
Grant Amount: $ 6,395.00
Non-federal Match: $ 5,335.00
Total Amount: **$11,730.00**

2019 Local Implementation Grant — concluded

Adirondack Experience Library Cataloging Internship

Project Summary

The Adirondack Experience museum in Blue Mountain Lake, NY used a $5,000 CVNHP Internship Grant to hire an intern, Kasey Calnan, for eight weeks during the summer of 2019. The intern was trained on library procedures and cataloguing standards using Past Perfect collections management museum software. She catalogued 695 pieces of ephemera from the library's holdings, and created digital surrogates for two-thirds of these. This far exceeded the baseline goal of the project, which aimed to catalog 480 pieces of ephemera. She also provided light conservation treatment to these materials, rehousing them in mylar and archival folders as needed. Kasey also assisted with an ongoing map cataloguing and digitization project in the library.

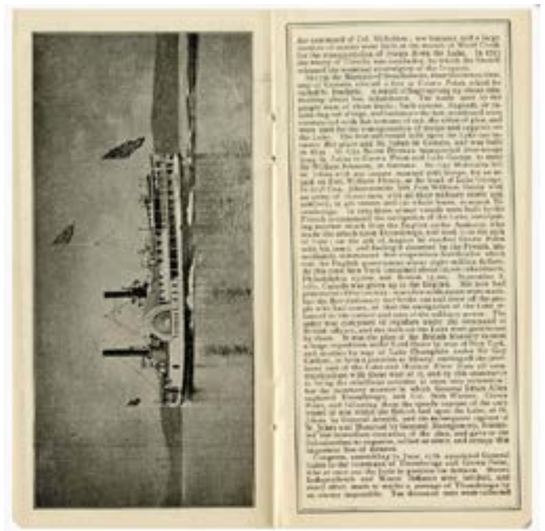
Outputs:

- assessment of individual pieces of historical ephemera (i.e., brochures, train tickets, newsletters, etc
- cataloging of those which meet our criteria, resulting in approximately 480 - 720 new, original catalog records in the Past Perfect online database
- light conservation for roughly ¼ of the collection by rehousing damaged folders and storing delicate items in mylar sleeves.
- updating of master inventory list of ephemera files for research use.
- digital copies of the ephemera items, when appropriate, and uploading into Past Perfect online database.

Outcomes:

- support for needed historical and archeological research
- Utilize new and existing research and documentation to support the evaluation, conservation, and interpretation of natural and cultural heritage resources.
- Sponsor training for conservation, education, interpretation, marketing, administration, and other topics as needed.

Organization:	Adirondack Experience
Contact Person:	Ivy Gocker
Mailing Address:	PO Box 99 Blue Mountain Lake, NY 12812
Phone:	518-352-7311 x108
E-mail:	igocker@theadkx.org
Website:	https://www.theadkx.org/



A Lake Champlain Ferry brochure was one of almost 700 pieces of ephemera catalogued by The CVNHP Intern at the Adirondack Experience

NEIWPCC Code:	LS-2018-023
NPS	0988-013
Start Date:	2/4/2019
Close Date:	**3/2/2020**
Grant Amount:	$5,000.00
Non-federal Match:	$3,259.00
Total Amount:	**$8,259.00**

2019 Local Implementation Grant — concluded

Education Fellowship

Project Summary

The Saint Albans Museum (SAM) was founded in 1966, with a mission to preserve and share the history of St. Albans, Franklin County, and northwestern Vermont through historical exhibitions, educational programs, arts/cultural performances, and special events. Veronica 'Ronnie' Farr (a hometown student in her junior year at Boston College) was awarded the 2019 Education Fellowship funded by a 2019 CVNHP Internship Grant with a goal to provide practical, hands-on experience for the next generation of cultural heritage leaders. Her position, which ran from May - August 2019, included an array of administrative, curatorial, educational, and other professional tasks. More specifically, this included collections development and program coordination for two marque projects: "Lake Lessons" and the "Rail City History Project." Farr's dedication, positive work ethic, attention to detail, and passion for community history were a tremendous asset to SAM, resulting in an immediate and positive impact on the museum's outreach.

Outputs:

- Perform artifact cataloging/photography and data entry - update Past Perfect catalog records
- Manage Lake Lessons curriculum/outreach (coordinate and implement place-based cultural heritage/ STEM workshops for 3rd-4th grade as part of second phase of pilot program) & curate St. Albans Bay Storytelling digital exhibition
- Update Farming Franklin County exhibit to recognize 100th anniversary of St. Albans Co-Op (identify, research, design, and interpret dairy and other agricultural artifacts/documents)

Outcomes:

- support for needed historical and archeological research, and accelerate the identification, evaluation, protection, and interpretation of heritage resources, including ethnographies of the cultures within the CVNHP.

Organization:	Saint Albans Museum
Contact Person:	Alex Lehning
Mailing Address:	PO Box 722 St. Albans, VT 05478
Phone:	(802) 527-7933
E-mail:	alex@stamuseum.org
Website:	http://stamuseum.org/

From curation to outreach, Ronnie Farr spent her summer learning how a history museum is run.

NEIWPCC Code:	PO 12689
NPS	0988-013
Start Date:	3/6/2019
Close Date:	**1/6/2020**
Grant Amount:	$ 5,000.00
Non-federal Match:	$ 5,000.00
Total Amount:	**$10,000.00**

2020 Program Grant

in progress

Franco-American History and Collections Internship

Project Summary

This grant will fund a 200-hour summer internship for an undergraduate or master's level student (with a view to recruitment from CVNHP-and-adjacent-area institutions including UVM, Plattsburgh State, St. Michael's College, or McGill, Concordia, UQAM in Quebec) in history, Canadian or Quebec studies, or another relevant discipline. The intern will work with the Center's collections manager in the Center's Franco-American heritage collection and resource library, receiving hands-on training in artifact handling, archival research, and information management and developing a final project in relation to the intern's particular interests and skills that will help to provide better access to some area of the collection (possible deliverables include a finding aid, web gallery, educational activities/lesson plans, pop-up exhibit, etc).

Outputs:

- A student-intern's increased familiarity with both archival work and Franco-American history
- new resource to be used for greater public access to these resources for the local community in Champlain and the wider community of both independent and academic researchers of Franco-American life, culture and heritage.

Outcomes:

- Increased visibility and access to the Center's Franco-American resources, and the building of relationships and mutual awareness between the Center and an area institution of higher learning.

Organization: Samuel de Champlain History Center

Contact Person: Celine Paquette

Mailing Address: PO Box 3333, 202 Elm St.
Champlain, NY 12919

Phone: (518) 298-1609

E-mail: cpaquette@primelink1.net

Website: http://moorsfieldpress.com/hc/samuel_de_champlain_history_center.html

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	PO 100054
GLFC	0100-328-005
Start Date:	2/1/2020
Close Date:	
Grant Amount:	$2,500.00
Non-federal Match:	$ 700.00
Total Amount:	**$3,200.00**

2020 Program Grant

in progress

Graduate Internship Program for the Ticonderoga Historical Society

Project Summary

This grant would fund a graduate internship program that would provide a comprehensive opportunity for hands-on experience in all areas of the museum – visitor services, volunteers, exhibits, programs, conservation and the business end of the museum (budgeting, non-profit compliance and board relations).

Outputs:

- The intern will gain an understanding of the mission of the nonprofit historical museum and its value to the community. The intern will have hands-on opportunities to work in all facets of museum operations. THS will provide instruction, encouragement and support for the intern, and solicit feedback for future use.

Outcomes:

- enhanced capability to meet research requests
- more comprehensive exhibit and interpretation capabilities
- overall ability to better tell the story of the social, military and environmental histories of the Lake Champlain Basin.

Organization: Ticonderoga Historical Society

Contact Person: William G. Dolback

Mailing Address: Hancock House
6 Moses Circle
Ticonderoga, NY 12883

Phone: 518-585-7868

E-mail: tihistory@bridgepoint1.com

Website: https://www.tihistory.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-092
NPS	0988-014
Start Date:	12/6/2019
Close Date:	
Grant Amount:	$5,000.00
Non-federal Match:	$2,600.00
Total Amount:	**$7,600.00**

2020 Program Grant — in progress

Internship in Nautical Archaeology and Historic Preservation: Lake Champlain Steamboats

Project Summary

This internship (June 1 – August 15, 2020) will provide an opportunity for an emerging professional to gain valuable experience in the museum field while also improving public access to the region's cultural heritage. The intern will provide public interpretation for museum visitors at LCMM's Nautical Archaeology Center, gain understanding of artifact conservation, and undertake research that will serve as a foundation for the protection and improved public access to the lake's steamboat shipwrecks. The intern will work with LCMM staff to assemble a Multi Property Documentation Form and draft NRHP nominations used in cultural resource management efforts by NY and VT SHPOs and nationwide. Authorized by the National Historic Preservation Act of 1966, the NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. This internship has local and national reach.

Outputs:

- Intern educational experience and training for public interpretation in lake history and archaeology, preparation of NRHP nomination forms; expanded digital resource files on Lake Champlain's Steamboats; Multi Property Nomination Form for Lake Champlain Steamboat Shipwrecks; draft nominations for two selected steamboat shipwrecks, one in NY and one in VT waters.

Outcomes:

- An anticipated 12,000 visitors and area students will have increased understanding and appreciation for Lake Champlain's cultural history and historic shipwrecks via intern interpretation and more efficiently designed exhibits and curricula due to expanded digital resource files. An emerging professional will have gained valuable experience in the museum field.

Organization: Lake Champlain Maritime Museum

Contact Person: Christopher Sabick

Mailing Address: 4472 Basin Harbor Road
Vergennes, VT 05491

Phone: 802.475.2022 x 102

E-mail: chriss@lcmm.org

Website: https://www.lcmm.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2019-096
GLFC 0100-328-005
Start Date: 11/19/2019
Close Date:
Grant Amount: $5,000.00
Non-federal Match: $4,860.00
Total Amount: **$9,860.00**

2019 Local Implementation Grant — concluded

Jane Beck Folklife Fellowship

Project Summary

The Vermont Folklife Center Jane Beck Folklife Fellowship—Archival Fellowship supported a year of hands-on-experience archivist, Susan Creighton, a recent graduate of the Library and Information Science graduate program of Simmons College, to work with materials in the Vermont Folklife Center (VFC) Archive in Middlebury, VT. Creighton began work in January 2019 and completed her internship in December 2019. Susan focused her work in three areas: cataloguing materials for, and coordinating processes connected to, VFC's Council on Library and Information Resources (CLIR) grant project; developing a disaster plan for VFC collections; and formalizing digital preservation practices at VFC.

Outputs:

- increased access to VFC archival holdings through creation of detailed cataloging records in ArchiveSpace and online access via the Folklore Collections Database
- development of a Digital Preservation Policy for the Vermont Folklife Center Archive.
- VFC's involvement in a CLIR-funded archival project coordinated by the American Folklore Society
- Disaster Plan for VFC collections.

Outcomes:

- support for needed historical and archeological research, and accelerate the identification, evaluation, protection, and interpretation of heritage resources, including ethnographies of the cultures within the CVNHP.

Organization: Vermont Folklife Center

Contact Person: Andy Kolovos

Mailing Address: 88 Main Street
Middlebury, VT 05753

Phone: (802) 388-4964

E-mail: akolovos@vermontfolklifecenter.org

Website: https://www.vermontfolklifecenter.org/

CVNHP-sponsored intern Susan Creighton and a VFC colleague review documents from the archives in Middlebury, Vermont

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: PO 12677
NPS 0988-013
Start Date: 2/6/2019
Close Date: **1/6/2020**
Grant Amount: $ 5,000.00
Non-federal Match: $25,000.00
Total Amount: **$30,000.00**

2020 Program Grant — in progress

Maritime Trades Internship

Project Summary

Fort Ticonderoga seeks support for a maritime trade's intern to work with museum staff to develop and present public hands-on carpentry programs relating to the museum's growing maritime program.

Outputs:

- build an 18th-century style bateau under the guidance of professional interpreters which will be used as part of an immersive soldiers' life program that takes student groups out onto the lake as they have the unforgettable opportunity to work together, rowing and maneuvering an 18th-century reproduction bateau as a team
- construction of new hands-on components in the expanding maritime learning lab, which introduces visitors to the workings of period sailing and construction apparatus as well as engineering concepts of leverage, tension, force, mass, lift and drag
- the intern will also have the opportunity to engage with interpretation, education, curatorial and collections staff. Fort Ticonderoga's unique and immersive educational approach introduces visitors to global concepts in Ticonderoga's naval history on the Lake Champlain corridor and its role in the founding of our nation, through hands-on exploration of naval transport.

Outcomes:

- build on existing knowledge; make new discoveries of the history, culture, and special resources of the Champlain Valley National Heritage Partnership; and make this information accessible to all
- have a well-informed public that values the unique heritage of the CVNHP and understands the threats to those resources."

Organization: The Fort Ticonderoga Association

Contact Person: Martha Strum

Mailing Address: PO Box 390
Ticonderoga, NY 12883

Phone: 518-585-2821

E-mail: mstrum@fort-ticonderoga.org

Website: https://www.fortticonderoga.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2019-095
GLFC 0100-328-005
Start Date: 1/19/2019
Close Date:
Grant Amount: $ 5,000.00
Non-federal Match: $ 7,170.00
Total Amount: **$12,170.00**

2019 Local Implementation Grant — concluded

Summer Graduate Fellow in Education

Project Summary

The Edward W. Pell Fellowship program brings four graduate students to Ticonderoga each summer for an intensive ten-week fellowship working with members of the Fort Ticonderoga staff in collections, exhibitions, interpretation, and education. Funding from a CVNHP Internship Grant supported Emily Grenier, the Graduate Fellow in Education. Emily used Fort Ticonderoga's archival and object collections to develop a proposed schedule and curriculum for the 2020 Teacher Institute, which will focus on the quest to control the Champlain Valley from Champlain's explorations in 1609 through the conclusion of the War of 1812.

Outputs:

- develop content focused on the quest to control the Champlain Valley from Champlain's explorations in 1609 through the conclusion of the War of 1812 for the Fort Ticonderoga 2020 Teacher Institute.
- develop a proposed schedule and curriculum for the Institute.
- acquire valuable skills related to using material culture, archival resources, place-based education, and current best practices in education to teach teachers how to engage students in the rich 17th- through early 19th-century history of the Champlain Valley and beyond.
- will engage with collections, curatorial, interpretation, and education staff during the two-month experience. finished sign at the Town Green

Outcomes:

- support for needed historical and archeological research, and accelerate the identification, evaluation, protection, and interpretation of heritage resources, including ethnographies of the cultures within the CVNHP
- support of a public information program that emphasizes recreational ethics, public safety, sustainable use, and stewardship of cultural and natural resources.

Organization: The Fort Ticonderoga Association

Contact Person: Martha Strum

Mailing Address: PO Box 390
Ticonderoga, NY 12883

Phone: 518-585-2821

E-mail: mstrum@fort-ticonderoga.org

Website: https://www.fortticonderoga.org/

Granger was one of four Edward W. Pell Fellowship interns to work at Fort Ticonderoga in 2019. Her work will be utilized in the 2020 Teacher Institute.

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2018-024
NPS 0988-013
Start Date: 2/4/2019
Close Date: **12/10/2019**
Grant Amount: $5,000.00
Non-federal Match: $2,190.00
Total Amount: **$7,190.00**

2019 Interpretive Theme Grant

concluded

Abenaki Picture-Book Dictionary

Project Summary

The Endangered Alphabets Project partnered with both Abenaki and non-Abenaki citizens to address the critical endangerment of the Abenaki language, and the general shortage of information and teaching materials about Abenaki culture, by publishing an introductory dictionary of roughly 100 words, with illustrations, suitable for school and general use.

Outputs:

- A 100-word picture-book Abenaki dictionary for children finished and ready for launch and local distribution in time for Indigenous Peoples' Day 2019.

Outcomes:

- support ethnographic research and documentation of the cultures within the CVNHP.
- utilize new and existing research and documentation to support the evaluation, conservation, and interpretation of natural and cultural heritage resources.
- encourage youth cultural and education exchanges.
- provide CVNHP-related presentations to schools.
- support bilingual interpretation of resources within the CVNHP

Organization: The Endangered Alphabets Project

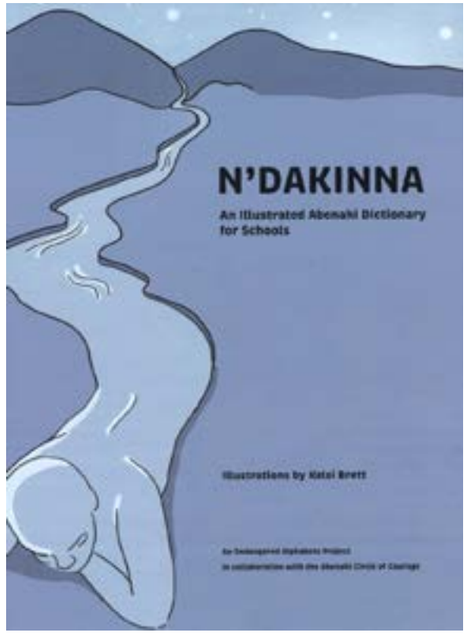
Contact Person: Tim Brookes

Mailing Address: 7 Baird Street
Burlington, VT 05401

Phone: (802) 310-5429

E-mail: brookes@champlain.edu

Website: https://www.endangeredalphabets.com/



Endangered Alphabet Project published N'Dakinna: An Illustrated Abenaki Dictionary for teaching the Abenaki dialect in schools and educational programs.

NEIWPCC Code: LS-2018-027
NPS 0988-013
Start Date: 3/4/2019
Close Date: **1/6/2020**
Grant Amount: $4,750.00
Non-federal Match:
Total Amount: **$4,750.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2019 Interpretive Theme Grant

concluded

Battle of Plattsburgh Military Muster

Project Summary

The Kent-Delord House Museum broadened the scope of its role in the City of Plattsburgh's annual Battle of Plattsburgh's Commemoration. The Military Muster succeeded in broadening the concentration and scope of the encampment at the Kent-Delord House Museum with an emphasis on trades and crafts, in addition to military history. While the muster stressed the components of everyday life in the early 1800's, it also maintained the focus of the important role the Battle of Plattsburgh played in in the history of the United States. The focus on trades, industries, and life in the early 19th Century was well received. The muster included a working coal forge on the grounds of the museum, which helped interpret the importance of metal working and blacksmithing in Plattsburgh 200 years ago.

Outputs:

- sponsor of a Military Muster featuring a living historic encampment with re-enactors plus hands-on activities of period trades and crafts, live military demonstrations, trades people and static educational exhibits.
- More than 400 people learned about American life in Plattsburgh in the early 1800s
- open to the public for ten (10) hours during the weekend for no charge.

Outcomes:

- support initiatives that promote sustainable recreational activities that feature the natural, cultural, and historical resources in the CVNHP.
- develop and/or improve natural and cultural heritage interpretive trails using wayside exhibits and other informative media.
- connect, promote, and improve cultural and natural heritage sites through interpretation.
- support professional development for interpreters.
- support the use of interpretive themes to link resources within the CVNHP.
- continue to explore Key Partner opportunities for shared programs.

Organization: Kent Delord House Museum

Contact Person: Samantha Williams

Mailing Address: 17 Cumberland Avenue
Plattsburgh, NY 12901

Phone: (518)-561-1035

E-mail: kdhmdirector@gmail.com

Website: https://www.kentdelordhouse.org/

The focus on the muster was life in the 19th century

NEIWPCC Code: LS-2018-022
NPS 0988-013
Start Date: 31/1/2019
Close Date: **1/9/2020**
Grant Amount: $ 1,400.00
Non-federal Match: $ 8,612.00
Total Amount: **$10,012.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2020 Interpretive Theme Grant

in progress

Because of Women Like Her…

Project Summary

Because of Women Like Her… is an educational exhibit from the Vermont Suffrage Centennial Alliance (VSCA) for middle and high school students on the Vermont side of Lake Champlain region. It will highlight the role women played in shaping Vermont's history prior to and following passage of the 19th Amendment, granting women the right to vote. This project will document the passionate struggle of Vermont women to acquire the right to vote through a traveling exhibit, curriculum guide for teachers, and student-led activities. The history of the movement is rarely taught in schools and few teachers are aware of its scope and significance. Calling themselves "invincible warriors," Vermont's suffragists persisted in efforts to secure their rights despite facing intractable legislative leaders who either ridiculed or dismissed their efforts for close to 70 years.

Outputs:

- an exhibit depicting women who helped shape Vermont history for circulation among middle/high schools on the Vermont side of Lake Champlain
- provide teachers with a digital Educator's Guide which includes resources, activities, and discussion questions about the suffrage movement and equality, rights, and citizens' responsibilities.

Outcomes:

- The project will increase visibility of Vermont's suffrage advocates in classrooms. Teachers and students will learn about woman suffrage within the movement. Students will learn how social and political activism can change history and that voting is an important part of democracy.

Organization: League of Women Voters of Vermont

Contact Person: Sue Racanelli

Mailing Address: PO Box 1391
Montpelier, VT 05601-1391

Phone: 802-225-6032

E-mail: lwvofvt@gmail.com

Website: https://my.lwv.org/vermont

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-094
NPS 0988-014
Start Date: 2/16/2020
Close Date:
Grant Amount: $ 7,500.00
Non-federal Match: $ 3,000.00
Total Amount: **$10,500.00**

2019 Interpretive Theme Grant

in progress

Island Line Rail Trail Geographic Interpretive Panels of the Adirondack and Green Mountains

Project Summary

Two bi-lingual (English and French) interpretative Wayside panels to be installed on the Island Line Rail Trail at the site of the Bike Ferry docks on the Colchester/South Hero causeway - one on the Colchester side of the 'cut', one on the South Hero side. The panoramic view of the surrounding mountains at this location in the middle of the lake is truly amazing. Over 100,000 visitors per year venture past this location. As operators of the Bike Ferry, Local Motion knows first-hand how common it is for visitors to point and ask "what peak is that?" These panels will answer that and many other questions about the heritage and geology of these mountains.

The one on the Colchester side will face west and feature the Adirondack Mountains; the one on the South Hero side will face east and feature the Green Mountains. The project will explore unique panel designs that may feature clear profiles of the mountain ranges, peaks, and valleys above the standard frame for the viewer to look through and line up the profile and labels with the horizon.

Outputs:

- local students will develop two user-interactive interpretive panels to tell the geologic history of the Adirondack and Green Mountains and label the peaks being seen from the viewer's perspective.

Outcomes:

- promote the use and geologic interpretation of a regionally significant, accessible, historic-interpretive recreational corridor.
- utilize new and existing research and documentation to support the evaluation, conservation, and interpretation of natural and cultural heritage resources.
- encourage youth cultural and education exchanges.
- provide CVNHP-related presentations to schools.
- support bilingual interpretation of resources within the CVNHP

Organization: Local Motion Inc.

Contact Person: Jonathon Weber

Mailing Address: 1 Steele St. Ste. 103
Burlington, VT 05401

Phone: 802-652-2453 ext. 104

E-mail: jonathon@localmotion.org

Website: https://www.localmotion.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2019-013
GLFC 0100-323-005
Start Date: 3/26/2019
Close Date:
Grant Amount: $ 7,500.00
Non-federal Match; $ 4,870.00
Total Amount: **$12,370.00**

2019 Interpretive Theme Grant — concluded

Lake George on the Water

Project Summary

Lake George On the Water tells the stories of the people, places and traditions of the watershed in a 22-part series of mini-documentaries produced by the Folklife Center at Crandall Public Library (Glens Falls, NY) working with college interns and making the series available to the public on iPad Kiosks within the Lake George corridor and via the Library's website and YouTube.

Outputs:

- series of mini-documentary videos (Lake George On the Water) will be placed on touchscreen iPad kiosks in libraries and other public institutions in the Lake George corridor.
- The Folklife Center staff, consultants, and interns produced 22 mini-documentaries that were viewed at two galleries featuring Smithsonian Water/Ways exhibition, November 23, 2019 to January 5, 2020 and are on permanent display at four sites on Lake George, New York.

Outcomes:

- support for needed historical and archeological research, and accelerate the identification, evaluation, protection, and interpretation of heritage resources, including ethnographies of the cultures within the CVNHP.
- develop and/or improve natural and cultural heritage interpretative trails using wayside exhibits and other informative media.
- support pilot projects that utilize emerging interpretive technologies.
- encourage the development of new website technologies for use on the CVNHP and stakeholder websites.

Organization: Folklife Center at Crandall Public Library

Contact Person: Todd DeGarmo

Mailing Address: 251 Glen Street
Glens Falls, NY 12801

Phone: 518-792-6508 x237

E-mail: tdegarmo@sals.edu

Website: https://www.crandalllibrary.org/

The team worked with historians, folklorists, and other experts to tell the story of Lake George, NY.

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: PO 12678
GLFC 0100-323-005
Start Date: 2/6/2019
Close Date: **1/9/2020**
Grant Amount: $ 5,085.00
Non-federal Match: $28,940.00
Total Amount: **$34,025.00**

2019 Interpretive Theme Grant — concluded

Natural History Interpretation of Rugar Woods

Project Summary

SUNY-Plattsburgh established a formal interpretive trail within the Rugar Woods Outdoor Education and Field Research Reserve, situated adjacent to the university's fieldhouse in the city of Plattsburgh, that would 1) guide users through the local ecology and flora, 2) provide an educational resource for local school and SUNY Plattsburgh students and 3) tie in, as a spur trail, to the planned Saranac River Trail Greenway. The trail provides local information on the natural and cultural significance of the site and encourage hikers to learn more using technology (QR codes). It also serves as a community engagement opportunity for students, faculty, and the greater campus and the Plattsburgh community.

Outputs:

- improve existing Rugar Woods trails and interpretive displays by adding signage that will provide information on the preserve. Signs will incorporate technologies to promote field and online engagement between SUNY Plattsburgh and the local community.
- The creation of a new natural heritage interpretive trail and online supplemental interpretive materials for the Rugar Woods in Plattsburgh, New York.

Outcomes:

- an understanding of the regional ecology and flora for the greater Plattsburgh community
- provide connectivity between existing trail systems on the SUNY Plattsburgh campus and the SRTG
- engage students at SUNY Plattsburgh in building educational infrastructure and using emerging technologies for effective communication and education on natural resources
- provide an educational resource for local schools and the community.

Organization: SUNY Plattsburgh

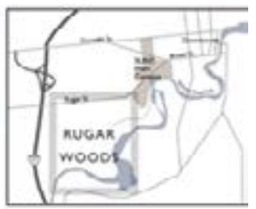
Contact Person: Danielle Garneau, Ph.D; Mark Lesser, Ph.D., Mary Alldred, Ph.D.

Mailing Address: 101 Broad St.
Plattsburgh, NY 12901

Phone: 518-564-4073

E-mail: dgarn001@plattsburgh.edu

Website: https://www.plattsburgh.edu/



The 23 new interpretive signs are enhanced by online interpretation linked by QR codes

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2018-028
NPS 0998-013
Start Date: 6/18/2019
Close Date: **4/20/2020**
Grant Amount: $ 3,911.00
Non-federal Match: $10,727.00
Total Amount: **$14,638.00**

2019 Interpretive Theme Grant

concluded

Sheldon Village Historic Main Street Homes

Project Summary

The Sheldon Historical Society in conjunction with the Sheldon School undertook a research project on the historic homes of Main Street Sheldon VT resulting in over 30 hours of research, a historic homes map, a new web site, and two CVNHP wayside exhibits on Main St.

Outputs:

- Two interpretive displays depicting the history of homes on the west side of Main Street Sheldon VT and a detailed map brochure of their histories.
- Students, residents and visitors became aware of the history of Main Street. Students learned the value of historic town records and developed two new wayside exhibits and maps with the information they researched.

Outcomes:

- support historical and archeological research and documentation.
- support ethnographic research and documentation of the cultures within the CVNHP.
- utilize new and existing research and documentation to support the evaluation, conservation, and interpretation of natural and cultural heritage resources.
- develop and/or improve natural and cultural heritage interpretative trails using wayside exhibits and other informative media.
- support tourism information centers, marketing organizations, regional byway initiatives and the Non-motorized Tourism Clearinghouse, to coordinate and disseminate information on opportunities for year-round use of recreational, natural, cultural, and historic resources of the CVNHP.
- support the use of new information technology to provide quality information on heritage and recreation resources.

Organization:	Sheldon Historical Society
Contact Person:	Harold L Smith
Mailing Address:	P O Box 36 Sheldon Springs, VT 05485
Phone:	802-933-4566 or 802-370-4148
E-mail:	smithvt1@gmail.com
Website:	http://www.sheldonvthistorical.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-004
NPS	0988-013
Start Date:	3/4/2019
Close Date:	**7/23/2020**
Grant Amount:	$4,000.00
Non-federal Match:	$2,600.00
Total Amount:	**$6,600.00**

2020 Interpretive Theme Grant

in progress

Vermont's African American Heritage Trail (VAAHT) and Its Neighbors in New York and Quebec

Project Summary

The project will provide revised and updated educational/promotional materials to sites along the VAAHT while initiating outreach to partners at black heritage sites in New York and Quebec, as well as increasing access for educators and the public to trail materials and history.

The goal of the project is to provide revised and updated educational/promotional materials to sites along the VAAHT in order to encourage learners of all ages to understand the significant impact the fight for civil rights has had on our state, the broader CVNHP region and our country, as well as those involved in the movement. The project will result in a redesigned guide to African American heritage sites in Vermont and the New York counties: Clinton, Essex, Washington, Warren, and Saratoga. Sites in New York to be considered for inclusion in the guide: John Brown Farm State Historic Site, North Star Underground Railroad Museum, and explore incorporating Saratoga Springs and the annual Solomon Northup Day in the north country.

Outputs:

- Revision of print materials/incorporating new map that includes African American heritage sites in New York
- pull up banner/images from VAAHT. A banner for each site for use at schools and shows
- improved access to these materials for schools/tourism industry online
- increased collaboration between the many partners on the VAAHT

Outcomes:

- Updated materials provided to VAAHT, NY and CAN. sites, enhance student/visitor experience statewide; entice educators to use the sites to implement programming in schools with a focus on Vermont's and the CVNHP's black history. Hildene's "Pullman Porters: Unsung Heroes" is an example of such a program.

Organization:	ALANA Community Organization (Hildene)
Contact Person:	Curtiss Reed, Jr.
Mailing Address:	18 Town Crier Drive Brattleboro, VT 05301
Phone:	802.254.2972
E-mail:	creed@vtpfd.org
Website:	

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-099
NPS	0988-014
Start Date:	12/18/2019
Close Date:	
Grant Amount:	$7,500.00
Non-federal Match:	
Total Amount:	**$7,500.00**

2019 Interpretive Theme Grant

concluded

"Year of the Salmon"—A Community Generated Movie

Project Summary

Utilizing a 2019 CVNHP Conservation & Community Interpretive Theme Grant, the Swanton Arts Council succeeded in their goal of creating a 15-minute community-generated movie that incorporated salmon conservation facts into a fictional story. The project began in February 2019, and the final showing was in October 2019 with over 40+ community members putting their personal stamp on the project as they internalized the conservation materials. The movie was conceptualized and filmed at the Missisquoi National Wildlife Refuge and has been shown at three public gatherings, and continues to show on Northwest Access TV and online.

Outputs:

- Creation of a community-generated movie that incorporates salmon conservation facts in a fictional story for education and entertainment.

Outcomes:

- Provide general technical support for interpretation projects.
- Continue to explore Key Partner opportunities for shared programs.
- Develop web resources with Key Partners to advance outreach concerning specific partnership projects and programs.

Organization: Swanton Arts Council

Contact Person: Judy Paxman

Mailing Address: 98 Spring Street
Swnaton, VT 05488

Phone: 802 309-0650

E-mail: jpaxman@swantonartscouncil.org

Website: www.swantonartscouncil.org

The Swanton community—including the Girl Scouts—worked together to develop the International Year of the Salmon film.

NEIWPCC Code: LS-2019-007
NPS: 098-013
Start Date: 3/26/2019
Close Date: **1/9/2020**
Grant Amount: $ 4,000.00
Non-federal Match: $19,947.00
Total Amount: **$23,947.00**

2020 Interpretive Theme Grant

in progress

Youth & Student Engagement with the North Country Underground Railroad Historical Association

Project Summary

To enhance the experience of students and youths while sharing the experiences of the North Star Underground Railroad Museum, the North Country Underground Railroad Historical Association (NCUGRHA) intends to establish a "Youth & Student" program by networking and collaborating with schools across the Champlain Valley, as well as other local museums and historical sites.

Outputs:

- build on education-focused efforts by providing the resources to support the integration of educational partnership endeavors by establishing a robust "Youth & Student" program
- establish a network of school leads throughout the region
- develop a robust education program that expands on our early student endeavors
- create exhibits and events focused on our youth with the support of students and teachers.

Outcomes:

- engaging more K-12 schools across the Champlain Valley through sending prepared UGR outreach activities to schools, class visits to the museum, as well as visitations to local schools (ie 'Traveling Trunks Program).
- encouraging the development of cultural events and visual art exhibits aimed at the student or youth experience, including age appropriate social media content and opportunities for UGR inspired dance, song, or poem, graphic or electronic work inspired by their visit to the Museum.
- coordinating and collaborating with other local museums and sites, such as through the "Connect Kids to Parks Program," supported by NYS Parks, Recreation, and Historic Preservation.
- creation of a networking/event outreach database which will include all public and private schools, as well as the homeschool network, in the Champlain Valley.

Organization: NCUGRHA

Contact Person: Carol Hetfield

Mailing Address: 1131 Mace Chasm Road
Ausable Chasm, New York 12911-1704

Phone: 518-834-7624

E-mail: carolhetfield1665@gmail.com

Website:
https://www.northcountryunderground railroad.com/

NEIWPCC Code: LS-2019-101
NPS 0988-014
Start Date: 11/4/2019
Close Date:
Grant Amount: $7,500.00
Non-federal Match:
Total Amount: **$7,500.00**

2020 Interpretive Theme Grant — in progress

Ladies of the Lake – Women Captains on Lake Champlain

Project Summary

Lake Champlain's working waterfront is an environment in which women have overcome gender stereotypes. In 2020, LCMM will compile information about women who have captained vessels on Lake Champlain, and create interpretive exhibit panels, publicly accessible digital resource files, and public programs.

Outputs:
- digital resource files documenting women captains on Lake Champlain
- exhibit panels on women captains on Lake Champlain
- public program on women ferry captains in partnership with Chimney Point Historic Site
- public program on Captain Philomene Daniels of Vergennes
- publicity for new exhibition, public programs, and availability of digital resource files

Outcomes:
- increased public awareness of women captains on Lake Champlain and women's roles in the maritime history of the Champlain Valley.
- increased appreciation for women role models who have overcome the limitations of culturally defined gender stereotypes.
- public access to research resources on women captains on Lake Champlain.

Organization: Lake Champlain Maritime Museum

Contact Person: Eloise Beil

Mailing Address: 4472 Basin Harbor Road
Vergennes, VT 05491

Phone: 802.475.2022

E-mail: eloiseb@lcmm.org

Website: https://www.lcmm.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2020-008
GLFC 0100-328-005
Start Date: 2/18/2020
Close Date:
Grant Amount: $ 7,497.00
Non-federal Match: $ 3,300.00
Total Amount: **$10,797.00**

2020 Interpretive Theme Grant — in progress

Sesquicentennial of the 1870 Fenian Attack on Canada

Project Summary

The 150th anniversary of the 1870 attack on Canada by militant Irish nationalists operating from New York and Vermont will be commemorated in 2020. Multiple activities will be held at various locations in the Lake Champlain Basin, culminating in reenactment of the battle of Eccles Hill in Quebec. The Fenian Brotherhood—militant Irish nationalists working to free their homeland—played an important role in the making of nations. Commemoration of their 1870 attacks on Canada will explain how Fenian actions in 1866 were a proximate cause of Confederation. Service by Fenian units in the American Civil War helped the marginalized Irish community in the United States gain acceptance. (The Fenian cause of an independent republican Ireland succeeded in 1921.) The active role of the Fenian Sisterhood relates as well to the Suffrage Movement theme for 2020.

Outputs:
- creation of traveling displays/presentations on the relevant history
- publication of a brochure in French and English versions, with an Irish section
- organization of a multicultural event in St. Albans
- development of bi-lingual interpretive signage for the proposed Fenian Trail
- reenactment of the battle of Eccles Hill.

Outcomes:
- greater public awareness of the events that took place in the Lake Champlain region in 1870 and their historical background. The role of the Fenian Brotherhood in shaping the nations of Canada, Ireland, and—to some extent—the United States will be better understood and appreciated.

Organization: St Albans Museum
(Fenian Historical Society)

Contact Person: William L. McKone

Mailing Address: 9 Joshua Way
Essex Junction, VT 05452

Phone: (802) 324-9631

E-mail: vtfenian@gmail.com

Website: https://www.stamuseum.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-091
NPS 0988-014
Start Date: 2/25/2020
Close Date:
Grant Amount: $ 7,500.00
Non-federal Match: $10,000.00
Total Amount: **$17,500.00**

2020 Interpretive Theme Grant

in progress

Voting for our Voices: Sharing the stories of women's suffrage and civil rights

Project Summary

A multi-organizational, year-long effort focused on commemorating the centennial of the passage of the 19th amendment. Throughout the year 2020, our heritage sites will weave together the national story of women's suffrage and civil rights through the influences, activists and efforts of local women from the past and present.

Outputs:

- educational programs available to the public and a podcast on Women's Suffrage.

Outcomes:

- delivery of public-facing, collective voice of knowledge, history and education amongst neighboring cultural and historical venues in the mid-and lower Champlain Valley region.
- educate and engage the public in dialogue about the women's suffrage movement and the continued impacts on equal rights and social justice.
- offer multiple opportunities for engagement and participation in educational events at cultural and heritage sites.
- provide opportunities for residents and visitors to the region to be exposed to the CVNHP interpretive themes.
- cooperation and mutual support in public outreach and shared work plan amongst our organizations and fostering teamwork amongst stakeholders.

Organization: Penfield Museum (Friends of Crown Point Historic Site)

Contact Person: Lisa Polay

Mailing Address: 21 Grandview Drive Crown Point, NY 12928

Phone: 518- 813-0447

E-mail: lisa.polay@parks.ny.gov

Website https://www.penfieldmuseum.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: PO 100061
GLFC 0100-328-005
Start Date: 2/26/2020
Close Date:
Grant Amount: $5,000.00
Non-federal Match:
Total Amount: **$5,000.00**

2020 Interpretive Theme Grant

in progress

Women of Shelburne: Community Builders, Past to Present

Project Summary

To celebrate the 100th anniversary of the 19th amendment which gave women the vote, the Shelburne Historical Society (SHS) proposes to create an exhibit to honor the contributions women have made to build community in the Town of Shelburne, from the past to the present. Often local histories are dominated by stories of the European settlers, and men who fought in the wars or served in the government. The Society hopes to uncover the stories of the women who also served the community with courage, fortitude, and creativity. These stories of the unsung heroes of Shelburne will offer a more expansive view of the history of the Town.

Outputs:

- research primary and secondary sources to unearth the stories about women's roles in the community of Shelburne
- create an exhibit that interprets the life of women through the years in Shelburne, highlighting individual women with biographical sketches to be displayed in the Shelburne Town Hall
- prepare a companion guide to the exhibit for use at the Waldorf School and the Shelburne Community School, and as a handout for visitors to the exhibit. We will also incorporate our newly gained information into our walking tours and cemetery tours.

Outcomes:

- celebrate the 100th anniversary of the passage of the 19th amendment to the U.S. Constitution giving women the right to vote, and to increase public awareness of the contribution of women to our community life
- encourage local teachers and students to study local history and to incorporate local history activities into their curriculum. Focusing on the contributions of women, teachers will be able to use our research to create interesting projects through art, music, drama and creative writing.

Organization: Shelburne Historical Society

Contact Person: Dorothea Penar

Mailing Address: PO Box 101 Shelburne, Vermont 05482

Phone: 802-985-3761

E-mail: Shelburne1763@gmail.com

Website: https://www.facebook.com/Shelburne-Historical-Society-882685051874598/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: PO 100038
GLFC 0100-328-005
Start Date: 11/12/2019
Close Date:
Grant Amount: $1,150.00
Non-federal Match:
Total Amount: **$1,150.00**

2020 Special Program Grant

in progress

Champlain Valley Suffrage Centennial Motorcade

Project Summary

The Suffrage Centennial Auto Tour of the Champlain Valley will be a series of suffrage celebrations (pageant, rallies, reenactments, etc.) in at least 10 communities around Lake Champlain (including Plattsburgh, Ausable Chasm, Lewis, Westport, Vergennes, Chimney Point, Schroon Lake, Ticonderoga, Lake George, and Glens Falls) primarily during August 2020 when antique cars will motor suffragists between venues.

Outputs:

- presentation of the Suffrage Centennial Auto Tour at 10+ sites, featuring re-enactments including a re-imagined 1924 pageant and a broom brigade
- publish (in print and on-line) a map and booklet of women's historical sites in the Champlain Valley.

Outcomes:

- educate and increase public awareness of the fight for women's political equality by presentations
- creation and development of a map and booklet of women's historical sites in the region
- increase collaboration with community organizations and enhance the relationships with the broader communities in the Champlain Valley.

Organization: Chapman Museum

Contact Person: Timothy Weidner

Mailing Address: 348 Glen Street
Glens Falls, NY 12801

Phone: 518-793-2826

E-mail: director@chapmanmuseum.org

Website: https://www.chapmanmuseum.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: L-2020-017
GLFC 0100-328-005
Start Date: 3/9/2020
Close Date:
Grant Amount: $15,000.00
Non-federal Match: $20,200.00
Total Amount: **$35,200.00**

2020 Program Grant

in progress

Planning and Preparation for the 2020 Season of Canal Schooner *Lois McClure*

Project Summary

In preparation for the 2020 season aboard canal schooner Lois McClure, LCMM will research and develop interpretive materials to present the stories of inspiring women like steamboat captain Philomene Daniels of Vergennes (licensed 1887); Mrs. Frances Locke, recognized in 1893 as "the only woman captain of a canal boat plying between New York and Burlington;" Lea Coggio, one of six women recently serving as captains of Champlain Transportation Co. ferries; Mollie Beattie, who served as Vermont Commissioner of Parks, Forests, and Recreation and became the first woman Director of the United States Fish & Wildlife Service; and Mary C. Watzin, PhD, who spent 22 years as Professor and Dean of the Rubenstein School of Environment and Natural Resources at the University of Vermont; LCMM will call for public nominations of women to include in the project, and will contact prospective sponsors, ports of call, programs, and traveling exhibit venues to determine final tour configuration.

Outputs:

- list of women leaders generated by research and public nominations with digital resource files for background
- draft interpretive exhibit materials and online Story Map content, training materials, and training, for schooner interpretive crew
- publicity materials for schooner's 2020 season interpreting the lake's women leaders and informational poster to advertise the digital content for diverse access.

Outcomes:

- create public program content, for presentation at the Maritime Museum
- increase public awareness of women's participation in activities and professions related to Lake Champlain before and after the 19th amendment
- increase appreciation for regional women who have overcome gender stereotypes
- provide public access to research resources on Lake Champlain women role models.

Organization: Lake Champlain Maritime Museum

Contact Person: Elisa Nelson

Mailing Address: 4472 Basin Harbor Road
Vergennes, VT 05491

Phone: 802.475.2022 x105

E-mail: elisan@lcmm.org

Website: https://www.lcmm.org/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-090
NPS 0988-014
Start Date: 11/14/2019
Close Date:
Grant Amount: $35,000.00
Non-federal Match: $ 7,425.00
Total Amount: **$42,425.00**

SPECIAL PROJECT

2020 Program Grant

in progress

Saving *Spitfire*

Project Summary

Lake Champlain Maritime Museum (LCMM) will develop a long-term strategy for the stewardship, management and care of the Revolutionary War Gunboat *Spitfire*.

Outputs:

- NHHC Permit received by Lake Champlain Maritime Museum
- MOU signed by parties required for responsible study and long term planning of Spitfire
- plan to address NEPA, Section 106
- plan of action to designate Lake Champlain a NOAA Marine Sanctuary

Outcomes:

- increased collaboration and partnership between national, state, and nonprofit partners to build consensus on the future of *Spitfire*
- increased ability for Lake Champlain Maritime Museum to make informed decisions about the best practice for management of *Spitfire*.

Organization:	Lake Champlain Maritime Museum
Contact Person:	Susan McClure
Mailing Address:	4472 Basin Harbor Road Vergennes, VT 05491
Phone:	802.475.2022 x104
E-mail:	susanm@lcmm.org
Website:	https://www.lcmm.org/

NEIWPCC Code:	L-2019-098
GLFC	0100-328-005
Start Date:	11/25/2019
Close Date:	
Grant Amount:	$20,000.00
Non-federal Match:	$ 800.00
Total Amount:	**$20,800.00**

Champlain Valley National Heritage Partnership

2019 Local Implementation Grant

concluded

Boquet River Association Website Improvement

Project Summary

Boquet River Association hired a computer/web site professional Ken Hughes, the MacMan, to help get the hijacked site off the Internet and to create a better, easier link to its members and others wishing to learn about the Boquet River. The Association updated the information, added the ability to take online memberships, donations or purchases of promotional materials such as branded T-shirts and hats. Trainings were held to ensure that more than one of volunteer member knew how to add content and maintain the new web site.

Outputs:

- new web site with better format and interaction with our clientele and social media. It will be more inviting with better pictures and easier to find information.

Outcomes:

- sustainability through increased membership and volunteers

Organization:	Boquet River Association
Contact Person:	Anita Deming
Mailing Address:	PO Box #37 New Russia, NY 12964
Phone:	518-873-2178
E-mail:	anitaldeming@gmail.com
Website:	https://boquet-river.org/

NEIWPCC Code:	PO 12720
GLFC:	0100-323-004
Start Date:	5/21/2019
Close Date:	**10/16/2020**
Grant Amount:	$3,000.00
Non-federal Match:	$1,760.00
Total Amount:	**$4,760.00**

2019 Local Implementation Grant — concluded

Champlain Watershed Improvement Coalition of New York

Project Summary

The Champlain Watershed Improvement Coalition of New York (CWICNY) utilized funding to assist with the 15th Annual North Country Stormwater Tradeshow. This event is a public offering for interested individuals with regard to current stormwater projects and issues and future trends. Funds were utilized towards the organization and planning of the event and event supplies. Through this support, CWICNY is able to provide information and assistance to local communities and landowners, allowing them to make informed decision on issues such as water quality, streambank protection, and invasive species prevention.CWICNY's programs include education, outreach and technical assistance with the goal of protecting the terrestrial and aquatic resources of the Champlain Watershed.

Outputs:

- education and outreach materials provided to local municipalities and the general public.

Outcomes:

- Promote a better understanding and appreciation of Lake Champlain Basin resources and threats as well as personal responsibility that leads to behavioral changes and actions to reduce pollution
- Enhance learning opportunities at all educational levels to develop an understanding of and appreciation for Lake Champlain Basin resources, the related threats, and the priority actions needed to address them.
- Promote awareness within the community of issues facing the Lake Champlain Basin and the priority actions needed to address them.
- Develop programs that assist people in adopting behavioral changes that reflect a personal commitment to protecting and improving resources in the Basin.
- Build local-level implementation capacity to support Lake Champlain clean-up efforts.

Organization: Champlain Watershed Improvement Coalition of New York

Contact Person: Corrina Aldrich

Mailing Address: 394 Schroon River Road
Warrensburg, NY 12885

Phone: 518-623.3119

E-mail: corrina.aldrich@ny.nacdnet.net

Website: https://www.cwicny.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12685
GLFC	0100-323-004
Start Date:	2/26/2019
Close Date:	**1/3/2020**
Grant Amount:	$1,800.00
Non-federal Match:	$ 750.00
Total Amount:	**$2,550.00**

2019 Local Implementation Grant — concluded

Chazy Lake Watershed Initiative Organizational Support

Project Summary

Chazy Lake Watershed Initiative (CLWI) used this funding to; renew membership in the ADK Lake Alliance, purchase software and printer supplies, copying of informational material, printing and laminating of Aquatic Invasive Species (AIS) cards, purchase boat floats, and purchase AIS buoys. CLWI started this process in May of 2019 and completed this in March of 2020.

Chazy Lake Watershed Initiative's (CLWI) primary objective is to prevent the spread of aquatic invasive species. Since Chazy Lake is part of the Lake Champlain Basin, there is a need to coordinate among the different partners to address early detection, rapid response to new infestations, and management of invasive species populations. CLWI will work with a contracted service to reduce the amount of Eurasian water milfoil (EWM) in the lake.

CLWI's second objective is to educate the Lake's residents and visitors to understand and appreciate the beauty of this wonderful resource. CLWI's goal is to increase its membership, solicit more volunteers and share information so that residents and visitors will possess a sense of personal responsibility that results in behavioral changes and actions to reduce pollution that may find its way into the Lake and, in turn, the Champlain Basin.

Outputs:

- purchase software and supplies for the laptop and printer to develop AIS outreach print materials copying of an information packet that is distributed at the annual meeting
- produce and laminate more aquatic invasive species cards attached to key floats.

Outcomes:

- build awareness through informal learning of Lake Champlain Basin issues across all age groups
- behavioral changes and actions to reduce pollution in the Lake Champlain Basin.

Organization: Chazy Lake Watershed Initiative(CLWI)
Chazy Lake Environmental Committee (CLEC)

Contact Person: Lisa McGinn

Mailing Address: 40 Indian Point Way
Ellenburg Depot, NY 12935

Phone: 518 492-7537

E-mail: readingchic.lm@gmail.com

Website:

Lake Champlain Basin Program

NEIWPCC Code:	PO 12702
GLFC	0100-323-004
Start Date:	4/10/2019
Close Date:	**3/6/2020**
Grant Amount:	$3,200.00
Non-federal Match:	$ 300.00
Total Amount:	**$3,500.00**

2019 Local Implementation Grant — concluded

ECO AmeriCorps Sponsor Match

Project Summary

FNLC has several stormwater and resiliency projects in the watershed on both private and public lands. These projects we are informed by Tactical Basin Plans, geomorphic assessments, municipal stormwater management plans, and collaborations with local water quality groups. The goal of this project was to fund an ECO AmeriCorps member to help our organization with project education and outreach, project development, and project implementation.

Ultimately, the ECO AmeriCorps position has helped us increase the capacity of FNLC and our on-the-ground work that we are able to accomplish. With the added capacity, we were able to further develop projects and receive grant funding to move these to implementation.

Outputs:

- inventory of private roads and assessment of potential erosion and water quality projects
- Lake Wise property evaluations for private homeowners

Outcomes:

- minimize impacts properties have on Lake Carmi, in addition to following through with actions and best management practices to help reduce nutrients throughout the watershed.

Organization: Franklin Watershed Committee

Contact Person: Patrick Daunais

Mailing Address: PO Box 79
Franklin, VT 05457

Phone: 802-448-0554

E-mail: pdaunais@friendsofnorthernlakechamplain.org

Website: https://www.franklinwatershed.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2019-035
GLFC 0100-323-004
Start Date: 5/16/2019
Close Date: **10/25/19**
Grant Amount: $3,500.00
Non-federal Match:
Total Amount: **$3,500.00**

2020 Local Implementation Grant — in progress

Essex County Nonpoint Source Pollution Management Strategy Update

Project Summary

The purpose of this project is to update the Essex County Nonpoint Source Pollution Management Strategy. The Strategy was updated in December 2010 by the Essex County Water Quality Coordinating Committee (WQCC) and is due for revision. The output will be an updated Essex County Nonpoint Source Pollution Management Plan. The short-term outcomes will be shared knowledge of water quality issues in Essex County, strengthening of partnerships among organizations, agencies and others, and an updated plan providing direction for nonpoint source pollution management. The long-term expected outcome is the completion of action items and projects identified in the Management Strategy in order to improve and maintain water quality in Essex County, NY.

Outputs:

- an updated Essex County Nonpoint Source Pollution Management Plan providing direction for nonpoint source pollution management.
- shared knowledge of water quality issues in Essex County, strengthening of partnerships among organizations, agencies and others

Outcomes:

- completion of action items and projects identified in the Management Strategy in order to improve and maintain water quality in Essex County, NY.

Organization: Essex County SWCD

Contact Person: Alice Halloran

Mailing Address: PO Box 407
Westport, NY 12993

Phone: 518-962-8225

E-mail: ahalloran@westelcom.com

Website: http://www.essexcountyswcd.org/

Lake Champlain Basin Program

NEIWPCC Code: L-2020-027
GLFC 0100-328-004
Start Date: 3/23/2020
Close Date:
Grant Amount: **$**2,600.00
Non-federal Match: $1,000.00
Total Amount: **$3,600.00**

2019 Local Implementation Grant — concluded

Friends of Northern Lake Champlain Organizational Support 2019

Project Summary

The Friends of Northern Lake Champlain (FNLC) has been working to develop statewide clean water policies, and establish broad-based adoption of water quality projects by private landowners and municipalities for over a decade and a half. FNLC has transitioned to a volunteer, board-operated organization with no full time paid staff. This organizational support grant will provide the funding necessary to have a full time ECO AmeriCorps member helping our Project Coordinator implement projects and programs in the watershed. This additional staff capacity will be a key component in supporting FNLC and supporting our long-term sustainability.

Outputs:

- Organizing volunteers for river and stream bank cleanup activities.
- Assisting with riparian buffer plantings.
- Working with area schools on educational materials for stormwater management.
- Working with our Project Coordinator to identify, apply for, and administer grants for implementation projects.

Outcomes:

- establish broad-based adoption of water quality projects by private landowners and municipalities

Organization: Friends of Northern Lake Champlain

Contact Person: Patrick Daunais

Mailing Address: PO Box 1145
St. Albans, VT, 05478

Phone: 802-923-6740

E-mail: pdaunais@friendsofnorthernlakechamplain.org

Website: www.friendsofnorthernlakechamplain.org

Cassi Carpio at Georgia Elementary rain barrel installation 6/4/2020; Photo by Pat Daunais

Lake Champlain Basin Program

NEIWPCC Code: L-2019-081
GLFC 0100-323-004
Start Date: 7/15/2019
Close Date: **7/10/2020**
Grant Amount: $4,000.00
Non-federal Match: $4,150.00
Total Amount: **$8,150.00**

2019 Local Implementation Grant — concluded

Friends of the Winooski River's New Website

Project Summary

The Friends of the Winooski River's web site was outdated and difficult to use. This project allowed them to hire a web design company to create a new web site for the organization. The new site launched in December 2019 and is mobile-optimized, easy for staff to edit, and integrated with our other internet communications and commerce tools. We plan to track web page views before and after the redesign, although meaningful trends would probably fall beyond the term of the grant.

Outputs:

- new web site with a simple and appealing design that presents watershed health resources in an accessible format; clearly communicates the organization's mission and programs to users; and makes it easy for watershed residents to engage with our work.

Outcomes:

- increased stakeholder engagement: more volunteers, donors, and partners.
- Better information availability

Organization: Friends of the Winooski River

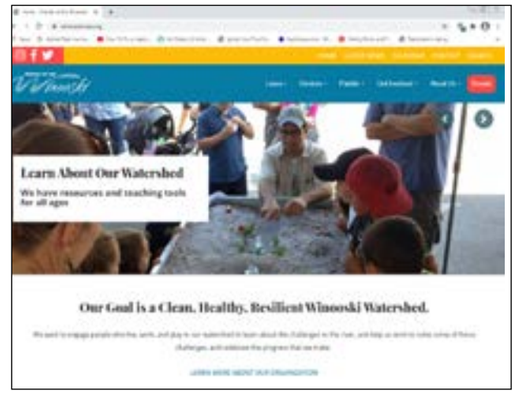
Contact Person: Michele Braun

Mailing Address: PO Box 777
Montpelier, VT 05601-0777

Phone: 802-279-3771

E-mail: michele@winooskiriver.org

Website: winooskiriver.org



Redesigned website homepage

Lake Champlain Basin Program

NEIWPCC Code: PO 12698
GLFC 0100-323-004
Start Date: 4/1/2019
Close Date: **4/1/2020**
Grant Amount: $4,000.00
Non-federal Match: $1,060.00
Total Amount: **$5,060.00**

2019 Local Implementation Grant

concluded

Lake George Association (LGA) Computer Infrastructure Replacement

Project Summary

These funds helped to upgrade many of the tools communications demands. The Association has an up-to-date network storage server that has significant storage space for documents, records and images, as well as updated backup capabilities. The server also eases the ability to work remotely, as are the newly purchased laptops.

Additionally, the office manager's computer has been replaced to allow more quick and efficient donor database management, outreach and membership mailings, and other needed tasks. The old computer was in decent shape for general office work, was wiped clean and used to replace an even older one used by the Environmental Educator.

The new printer allows in-house printing of materials for outreach programs and events and news media rather than off-site which has expanded printing capability and flexibility in capacity.

Outputs:

- upgrade of technology: server, computer, laptops and printer
- more efficient workflow and expanded (and protected) storage capacity
- increased printing capacity, a stable platform for our member database, and portable computers to help LGA staff members perform their work to protect Lake George and the Lake Champlain watershed.

Outcomes:

- protect the environment of the Lake George watershed, a major part of the Lake Champlain watershed, and the economies of the surrounding communities.

Organization: Lake George Association

Contact Person: Patrick Dowd

Mailing Address: PO Box 408
Lake George NY 12845

Phone: 518-668-3558

E-mail: pdowd@lakegeorgeassociation.org

Website: www.LakeGeorgeAssociation.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12690
GLFC	0100-323-004
Start Date:	3/7/2019
Close Date:	**12/10/19**
Grant Amount:	$4,000.00
Non-federal Match:	$3,060.00
Total Amount:	**$7,060.00**

2020 Local Implementation Grant

in progress

Lake George Association Software Update/Printer Purchase

Project Summary

More and more, the Lake George Association is streamlining efficiency and bringing tasks in-house as skills are developed and talent hired to save contractor costs, saving money for our work to protect the Lake George watershed. Those talents now include graphic design services by our Office Manager and coaching for other staff members. This grant request focuses on organizational technology – some upgrades, some new purchases – in order to make our work projects speedier, more efficient, and seamless.

The project also seeks the upgrade of our financial software, which is now five years old and needs to be updated to modern accounting standards.

Outputs:

- Printer and Envelope feeder
- Software (QuickBooks)
- Upgrade Software (Adobe Creative Suite)
- Purchase software perpetual license for drone imagery

Outcomes:

- increased communication of mission to supporters and the general public to build thriving communities that are focused on clean water – conserving it and protecting it.

Organization: Lake George Association

Contact Person: Patrick Dowd

Mailing Address: PO Box 408
Lake George NY 12845

Phone: 518-668-3558

E-mail: pdowd@lakegeorgeassociation.org

Website: www.LakeGeorgeAssociation.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 100072
GLFC	0100-328-004
Start Date:	3/24/2020
Close Date:	
Grant Amount:	$3,890.00
Non-federal Match:	
Total Amount:	**$3,890.00**

2020 Local Implementation Grant

concluded

Lake St. Catherine's 2020 Plan for Innovation and Sustainability, through "Engagement Activation, and Commitment" Membership Plan

Project Summary

The purpose of this project is to strengthen organizational capacity of the primary Association overseeing water quality improvement in the Lake St. Catherine watershed by creating a sustainable funding source for its innovative programs. To accomplish maintaining and expanding the membership base of the LSCA, management software was purchased. This will assist the Association to increase available funds for Lake programs and to reach more lake property owners with the message of preservation, protection and maintenance of Lake St. Catherine.

Outputs:

- Investment in online StarChapter - Association Management Software to host website and manage member & non-member databases, member outreach via mailings to property owners
- publish two informative and educational newsletters
- purchase of a projector to be used at the annual membership meeting and other educational and informational events.

Outcomes:

- membership participation to over 50% of lake properties while increasing participation and contributions from local businesses and renters. In addition to additional revenue generation
- increased engagement and buy-in will assist the overall watershed goals of pollution prevention and control of AIS spread.

Organization: Lake St Catherine Association

Contact Person: Martha H. Pofit

Mailing Address: 1444 West Lake Rd
Wells, Vermont 05774

Phone: (802) 345-3965

E-mail: martha.pofit@lakestcatherine.org

Website: https://www.lakestcatherine.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 100063
GLFC	0100-328-004
Start Date:	3/9/2020
Close Date:	**4/8/2020**
Grant Amount:	$1,000.00
Non-federal Match:	$7,500.00
Total Amount:	**$8,500.00**

2018 Local Implementation Grant

concluded

Lamoille River Paddlers Trail Capacity Building and Strategic Planning

Project Summary

This project enhanced Vermont River Conservancy's capacity to complete water quality and public access projects along the Lamoille River. The organization seeked to strengthen the volunteer steering committee tasked with the creation of the Lamoille River Paddlers Trail.

Outputs:

- recruitment of new members, expanding the committee to include more regional representation
- development of a strategic plan to guide future public access and water quality projects
- funding of committee members trainings in storm-water management and trail best practices
- purchase of video equipment to develop more compelling education and outreach programs

Outcomes:

- build awareness and understanding among residents and visitors about Lake Champlain Basin resources and behaviors that contribute to pollution
- provide hands-on citizen action opportunities to improve the watershed and change behaviors that contribute to pollution

Organization: Vermont River Conservancy

Contact Person: Noah Pollock

Mailing Address: 29 Main St, Ste 11
Montpelier VT 05602

Phone: 802 540-0319

E-mail: noah@vermontriverconservancy.org

Website: www.vermontriverconservancy.org

Volunteers stabilizing an eroding bank along the Lamoille River. Spring 2017

Lake Champlain Basin Program

NEIWPCC Code:	PO 12559
GLFC	0100-319-004
Start Date:	4/12/2018
Close Date:	**12/10/19**
Grant Amount:	$3,906.00
Non-federal Match:	$1,072.00
Total Amount:	**$4,978.00**

2020 Local Implementation Grant — in progress

Strategic Planning and Preparing for Act 76

Project Summary

The purpose of this organizational support project is to maintain and strengthen District programs as new initiatives and funding structure shifts are enacted. The grant has three key organization strengthening tasks. 1) build and expand local skilled, cooperative, and technical partnerships, 2) update the PMNRCD Strategic Plan with an eye toward changes imminent from Act 76, and 3) strengthen bookkeeping/accounting and financial forecasting abilities at the District.

Outputs:

- include partner meetings, ultimately providing a framework for selection of a strong Basin Water Quality Council
- an updated strategic plan with a focus on current priorities
- fine-tuned bookkeeping methods

Outcomes:

- water quality improvement work in the South Lake Watershed will continue, improve, and evolve as changes occur, both legal/political and environmental

Organization: Poultney-Mettowee NRCD

Contact Person: Hilary Solomon

Mailing Address: PO Box 209
Poultney, VT 05764

Phone: (802) 558-3515

E-mail: hilary@pmnrcd.org

Website: www.pmnrcd.org

PMNRCD staff work will be supported through this grant.

Lake Champlain Basin Program

NEIWPCC Code: L-2020-049
GLFC 0100-328-004
Start Date: 5/26/2020
Close Date:
Grant Amount: $4,000.00
Non-federal Match: $2,000.00
Total Amount: **$6,000.00**

2020 Local Implementation Grant — in progress

Strengthening Connections in the Missisquoi Basin

Project Summary

Through this two-tiered project, the MRBA aims to continue being an effective voice, and partner, working toward clean water and a more informed public in the Missisquoi watershed. Tier-one of this project will enable the replacement of an aged and failing computer, which is a necessary tool for the Association's work (communications, educational programs, implementation projects, and more). Tier-two will enable continuation of strengthening collaborative relationships that were previously established. Partners in the region are doing great work, but often there is not enough time or budget funds to collaborate with each other effectively. Through this project, the MRBA will organize several meetings with our regional partners, as well as collaborative events through which we can share resources, improve support networks, increase our audiences and messaging, and – quite simply – be stronger together.

Outputs:

- purchase of computer
- meetings and collaborative events

Outcomes:

- collaboration, shared resources, improved support networks, increased audiences and messaging, and joint strength

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: mrba@pshift.com

Website: https://www.mrbavt.com/

Former ECO AmeriCorps member Jenevra Wetmore showing off our educational displays at the Franklin County Natural Resources Conservation District's Tree Sale. Photo credit: Lindsey Wight.

Lake Champlain Basin Program

NEIWPCC Code: L-2020-048
GLFC 0100-328-004
Start Date: 4/23/2020
Close Date:
Grant Amount: $3,730.00
Non-federal Match: $1,445.00
Total Amount: **$5,175.00**

2020 Local Implementation Grant

in progress

Upgrading Technology and Improving Efficiency at Winooski Valley Park District

Project Summary

This project seeks to make essential upgrades to the WVPD's technological infrastructure to enhance the capabilities of the organization. This project will support improvement in efficiency and enable WVPD to better serve our mission and member communities. Outputs will include proof of purchases and a performance report detailing new system operations and impact on WVPD organizational capacity. This project will allow WVPD to enhance our communications, accelerate our productivity, and more actively address our mission through the acquisition of new computer hardware, software upgrades, and implementation of a remote-access virtual private network (VPN). WVPD will use our non-profit status to prioritize discounted product services, such as TechSoup, when acquiring new hardware and software.

Outputs:

- purchase of new computer hardware, software upgrades, and implementation of a remote-access virtual private network (VPN)
- performance report detailing new system operations and impact on WVPD organizational capacity

Outcomes:

- enhance our communications, accelerate our productivity, and more actively address our mission

Organization:	Winooski Valley Park District
Contact Person:	Lauren Chicote
Mailing Address:	1 Ethan Allen Homestead Burlington, VT 05408
Phone:	(802) 863-5744
E-mail:	info@wvpd.org
Website:	www.wvpd.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 100093
GLFC	0100-328-004
Start Date:	5/11/2020
Close Date:	
Grant Amount:	$4,000.00
Non-federal Match:	$3,223.00
Total Amount:	**$7,223.00**

2019 Local Implementation Grant

concluded

Warren County Forest Management Program

Project Summary

The Warren County Soil & Water Conservation District partnered with the Town of Queensbury and the Town of Lake George to develop a one-day municipal training in regard to forest management and municipal requirements. Timber harvest requirements may include erosion and sediment control or stormwater regulations and vary by municipality, which can be confusing to a logger or forester. Many municipal officials have little to no education or background in forest management and cannot readily understand a good or bad management plan. This creates a significant discrepancy between regulatory requirements and the goal of forest health. This program had municipal officials (board members, planners, CEO's), NYSDEC and private foresters discuss the challenges presented by the disparity and seek to develop a better understanding of those challenges which will lead to better resource protection, while maintaining economic viability for landowners. The outcome of this training is that municipal staff will have a better understanding of forest management, planning, forest health, and the regulatory requirements.

Outputs:

- forest management and municipal requirements training development with local planning officials

Outcomes:

- municipal staff will have a better understanding of forest management, planning, forest health, and the regulatory requirements.

Organization:	Warren County SWCD
Contact Person:	Jim Lieberum
Mailing Address:	394 Schroon River Rd Warrensburg NY 12885
Phone:	518.623.3119
E-mail:	jim99@nycap.rr.com
Website:	www.warrenswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-019
GLFC	0100-323-004
Start Date:	4/5/2019
Close Date:	**10/10/2019**
Grant Amount:	$2,500.00
Non-federal Match:	$ 825.00
Total Amount:	**$3,325.00**

2019 Local Implementation Grant — concluded

Watershed Collaborations

Project Summary

The Missisquoi River Basin Association (MRBA) used these funds to support collaborations in its watershed and region. These funds were primarily used to support the time and mileage required to meet with area partners – both to plan events together, and to share ideas and resources. The ability to readily say yes to meetings and proposed events enabled the MRBA to strengthen partnerships, increase its audience, and ensure that efforts are in conjunction with those of other organizations working towards improved water quality in our region.

Outputs:

- 6 planning meetings with regional partners
- site assessments and landowner visits
- 7 collaborative events in pursuit of improving water quality in the watershed.

Outcomes:

- more unified efforts and messaging across groups, and a wider reach for our messages.
- strengthened relationships

Organization: Missiquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: mrba@pshift.com

Website: https://www.mrbavt.com/

Lake Champlain Basin Program

NEIWPCC Code: L-2019-036
GLFC 0100-323-004
Start Date: 4/12/2019
Close Date: **12/31/2019**
Grant Amount: $3,403.00
Non-federal Match: $1,575.00
Total Amount: **$4,978.00**

2019 Local Implementation Grant — concluded

Watersheds United Vermont Nonprofit Transition Support

Project Summary

Watersheds United Vermont (WUV) is in a critical transition time as an organization going from using a fiscal sponsor (the Vermont River Conservancy) to becoming its own 501(c)(3) organization. These funds went directly towards the purchase of a WUV computer, software including Office and Quickbooks, bookkeeping/accounting services for setting up financial systems, and the Director's time in setting up systems and meeting the obligations required as a 501(c)(3). The output will be a report on the newly set up WUV hardware, software and systems. The outcome will be an organization that is ready to succeed as an independent nonprofit with all necessary systems in place. Another outcome will be that WUV will have the capacity and ability to provide important resources to and support for watershed groups and partner organizations in the years to come

Outputs:

- report on the newly purchased and set up WUV hardware, software and systems.

Outcomes:

- an organization that is ready to succeed as an independent nonprofit with all necessary systems in place
- capacity and ability to provide important resources to and support for watershed groups and partner organizations in the years to come.

Organization: Watersheds United Vermont

Contact Person: Lyn Munno

Mailing Address: 75 Fairfield St
St Albans, VT 05478

Phone: 802 585-3569

E-mail: watershedsunited@gmail.com

Website: www.watershedsunitedvt.com

Lake Champlain Basin Program

NEIWPCC Code: PO 12696
GLFC 0100-323-004
Start Date: 3/22/2019
Close Date: **11/7/2019**
Grant Amount: $4,000.00
Non-federal Match: $2,300.00
Total Amount: **$6,300.00**

2020 Local Implementation Grant

in progress

Website Update

Project Summary

The Conservancy's website is functional but outdated and is not able to keep up with the growing need for increased outreach. VRC needs to be nimble in informing volunteers of upcoming events and opportunities to become involved in its work restoring its rivers and improving public access sites. A website redesign will enable VRC to involve more people in promoting healthy rivers and clean waterways throughout the state. VRC will also be able to better highlight the work of its partners and draw attention to the threats facing its rivers.

Outputs:

- redesigned website with improved outreach features

Outcomes:

- increased accessibility of data on Lake Champlain
- support local watershed groups
- build awareness through informal learning of Lake Champlain Basin issues across all age groups

Organization: VT River Conservancy

Contact Person: Richarda Ericson

Mailing Address: 29 Main Street, Ste 11
Montpelier, VT 05602

Phone: (802) 229-0820

E-mail: richarda@vermontriverconservancy.org

Website: www.vermontriverconservancy.org

Screen shot of the outdated website

Lake Champlain Basin Program

NEIWPCC Code:	PO 100073
GLFC	0100-328-004
Start Date:	3/25/2020
Close Date:	
Grant Amount:	$ 4,000.00
Non-federal Match:	$15,969.00
Total Amount:	**$19,969.00**

2020 COVID 19 Emergency Grant

concluded

Advancing Clean Water Projects through Grant Uncertainty

Project Summary

The purpose of the 2020 LCBP Emergency Relief Grant was to provide organizational support during the COVID-19 pandemic. Winooski NRCD used the grant funds to cover 115.25 payroll hours across three initiatives (Hands Mill Dam Removal, Shady Rill Recreation Area Stream Bank Restoration Project, and Intern mentorship and training) as well as administration for this grant. We are immensely appreciative of LCBP for making this relief funding available, which relieved significant strain on our operating expenses, and allowed Winooski NRCD to enter the new fiscal year on surer footing to continue advancing clean water projects and programming for years to come.

Outputs:

- covered 125 hours of staff time to advance a Phase 1-30% design for removal of Hands Mill Dam on the Jail Branch of the Winooski.
- payroll supoort to help meet intern mentorship and training development committment by providing career experiences in clean water work for two UVM students
- payroll support overseeing the implementation phase of a stream bank restoration project at Shady Rill Recreation area.

Outcomes:

- 15 miles of reconnected brook trout habitat and 420,000- 2,600,000 lbs of sediment and 375 lbs of total phosphorus reduction
- surer footing to continue advancing clean water projects and programming

Organization: Winooski NRCD

Contact Person: Gianna Petito

Mailing Address: 17 Comstock Road, Suite 1
Berlin, VT 05602

Phone: 802.828.4493 x3178

E-mail: info@winooskinrcd.org

Website: https://winooskinrcd.org/

Shady Rill Pre-bid Site Visit with Contractors (7/24/20)

Lake Champlain Basin Program

NEIWPCC Code:	PO 100087
GLFC	0100-323-019
Start Date:	5/7/2020
Close Date:	**9/14/2020**
Grant Amount:	$5,000.00
Non-federal Match:	
Total Amount:	**$5,000.00**

2020 COVID 19 Emergency Grant concluded

Contract with ACRWC to continue operations during COVID-19

Project Summary

The Addison County River Watch Collaborative anticipated a shortfall of at least $10,000 (out of a total cash budget of approximately $30,000) this year due to COVID-19-related restrictions, delays, and inability to fulfill contracts as foreseen. This shortfall would cause financial difficulties for the organization, which disburses approximately 90% of its budget for staff salaries.

Outputs:

- enabled ACRWC to pay staff during the spring/summer months
- the conversion of in-person programming to on-line content aimed at continuing to engage volunteers and the public
- support for staff time to adapt to the ever-changing circumstances of the pandemic including the coordination and preparation demanded by the increasing number of (remote) meetings
- prepare online visualizations (maps, tables, graphs, etc.) of both historical and current data that is understandable by volunteers, landowners and the lay public
- office-related items/tasks such as supplies, internet-related hardware/software and upgrades.

Outcomes:

- organization sustainability

Organization:	Addison County River Watch Collaborative
Contact Person:	Matthew Witten
Mailing Address:	P.O. Box 27 New Haven, VT 05472
Phone:	802-434-3236
E-mail:	mwitten@gmavt.net
Website:	www.acrpc.org/acrwc

Lake Champlain Basin Program

NEIWPCC Code:	PO 100088
GLFC	0100-323-019
Start Date:	5/7/2020
Close Date:	**9/14/2020**
Grant Amount:	$4,971.00
Non-federal Match:	
Total Amount:	**$4,971.00**

2020 COVID 19 Emergency Grant concluded

Education Outreach Program Relief and Education Outreach Documentary

Project Summary

The two-part request for funding was to supplement the income lost from 16 educational outreach programs in May and June 2020, and to create a documentary that highlighted the work of Lamoille County Conservation District (LCCD). This documentary provides education outreach to the public but can also be used as a training video for people looking to work or partner with a Conservation District. The documentary also highlights 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. The documentary footage was filmed in many parts of Lamoille County as well as Orleans County. The footage is over a 4-month period. LCCD considers this short documentary the first draft of an ongoing project that will document in even more detail the many aspects of a Conservation Districts work. The narrative throughout the documentary provides a context to insert more footage and eventually the chapters can be split into individual documentaries.

Outputs:

- production of a training/education & outreach documentary
- template to expand video production
- relief of short-term economic impact

Outcomes:

- organization sustainability

Organization:	Lamoille County NRCD
Contact Person:	Peter Danforth
Mailing Address:	109 Professional Drive., Suite #2 Morrisville, VT 05561
Phone:	(802) 521-3004
E-mail:	lccddirector@gmail.com
Website:	http://www.lcnrcd.com/

Lake Champlain Basin Program

NEIWPCC Code:	PO 100086
GLFC	0100-323-019
Start Date:	5/7/2020
Close Date:	**9/16/2020**
Grant Amount:	$4,844.00
Non-federal Match:	
Total Amount:	**$4,844.00**

2020 COVID-19 Emergency Grant — concluded

Expanding the Impact of the MRBA

Project Summary

The MRBA used these funds to help pivot to an online/virtual platform – learning more about creating videos; providing online learning resources to watershed residents and students, and to continue to hold Board meetings and planning activities via a Zoom account.

Beyond this pivoting, the funds provided a nearly incalculable benefit by enabling us to bring on another part-time staff member as planned, instead of allowing the pandemic to halt a process that had begun in the later winter/early spring.

Outputs:

- facilitated orientation of new Project Manager
- purchase of equipment: Zoom account and video editing software
- online outreach resources

Outcomes:

- expanded impact

Organization: Missiquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: mrba@pshift.com

Website: https://www.mrbavt.com/

MRBA Project Manager planting trees along The Branch in Bakersfield.

Lake Champlain Basin Program

NEIWPCC Code:	PO 100090
GLFC	0100-323-019
Start Date:	5/7/2020
Close Date:	**9/16/2020**
Grant Amount:	$4,715.00
Non-federal Match:	
Total Amount:	**$4,715.00**

2020 COVID-19 Emergency Grant — concluded

FNLC Emergency Organizational Support 2020

Project Summary

This year FNLC was forced to cancel all major fundraising events due to the COVID-19 pandemic response. This lack of fundraising severely limited organizational capacity and ability to serve community partners.

In order to overcome funding and in-person challenges it was decided to continue producing web-based educational materials to provide information to those served in the community by expanding a video question and answer series. This supported an educational web blog series addressing conservation farming practices and stormwater management practices by FNLC staff.

Outputs:

- production planning of 5 Q&A videos
- Zoom subscription

Outcomes:

-

Organization: Friends of Northern Lake Champlain

Contact Person: Patrick Daunais

Mailing Address: PO Box 1145
St. Albans, VT 05478

Phone: 802.238.6973

E-mail: pdaunais@friendsofnorthernlakechamplain.org

Website: https://www.friendsofnorthernlakechamplain.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 100084
GLFC	0100-323-019
Start Date:	5/7/2020
Close Date:	**9/16/2020**
Grant Amount:	$2,878.00
Non-federal Match:	
Total Amount:	**$2,878.00**

2020 COVID-19 Emergency Grant — concluded

Friends of the Winooski River Emergency Support

Project Summary

The COVID-19 pandemic affected Friends of the Winooski River in a variety of ways. Some of its work had become more expensive and/or complicated. Staff were working less, because of family needs. Access to some unrestricted funds was lost with the expectation to lose more. Events were cancelled, and projects were delayed. The Friend applied for and received CARES Act funding through the Small Business Administration's Paycheck Protection Program (PPP). The LCBP relief grant was used in much the same way as the PPP, to pay rent expenses and contribute to payroll costs for the eight-week period following the PPP loan period, June 15 through August 7. This revenue provided the flexibility needed to ensure operations continue in spite of reduced unrestricted revenues, increased project costs, and ongoing instability.

Outputs:

- watershed organization staff support
- watershed organizational office support

Outcomes:

- payroll and rent were maintained, so that Friends of the Winooski River continued to have basic organizational capacity to continue operating at a similar level prior to the pandemic.

Organization: Friends of Winooski

Contact Person: Michele Braun

Mailing Address: P.O. Box 777
Montpelier, VT 05601-0777

Phone: (802) 279-3771

E-mail: info@winooskiriver.org

Website: https://winooskiriver.org

Friends of the Winooski River office door; in the Center for Arts & Learning, 46 Barre St, Montpelier. May 5, 2020.

Lake Champlain Basin Program

NEIWPCC Code: PO 100085
GLFC 0100-323-019
Start Date: 5/7/2020
Close Date: **9/15/2020**
Grant Amount: $3,342.00
Non-federal Match:
Total Amount: **$3,342.00**

2020 COVID-19 Emergency Grant — concluded

LCBP Emergency Relief Grants: Watershed Organizational Support 2020

Project Summary

The Poultney Mettowee Natural Resources Conservation District used these funds to maintain their new office space in downtown Poultney, help retain summer staff, create several educational videos for their website and Facebook pages, and allowed continued work providing Lake Wise assessments for shoreline homeowners on Lake Bomoseen.

Outputs:

- four informational videos to assist with continued watershed protection outreach and education during the pandemic: Soil Sampling, Tree Planting Techniques, a Virtual Tour of the Nursery, and a video about Floodplain and Riparian Habitat.
- watershed organizational office support (summer rent and utilities) and electric costs at the nursery

Outcomes:

- continuation of outreach work, maintaining momentum from past years, and encouraging implementation of lake friendly practices.

Organization: PMRNCD

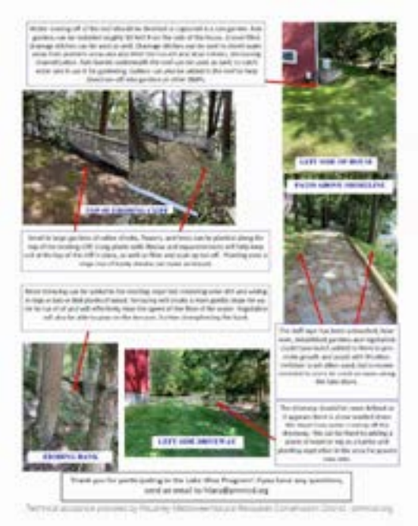
Contact Person: Hilary Solomon

Mailing Address: PO Box 209
Poultney, VT 05764

Phone: (802) 558-3515

E-mail: hilary@pmnrcd.org

Website: https://www.pmnrcd.org/



Lake Champlain Basin Program

NEIWPCC Code: PO 100081
GLFC 0100-323-019
Start Date: 5/6/2020
Close Date: **9/16/2020**
Grant Amount: $4,925.00
Non-federal Match:
Total Amount: **$4,925.00**

2020 COVID-19 Emergency Grant — concluded

LCC Covid Coping Emergency Relief Grant

Project Summary

LCC used the $5,000 LCBP COVID-19 Emergency Relief Support Grant to assist with remote work during the Covid-19 pandemic

Outputs:

- two laptops with necessary software and enough memory to handle computer programs and facilitate remote work
- three monitors to provide larger screens and facilitate viewing multiple documents
- Zoom software and contract to facilitate video conferencing, virtual meetings including trainings
- GoToMyPC remote access software to enable staff to access the office server while working remotely
- Offset a portion of the costs of staff using their personal cell phones while working remotely.

Outcomes:

- continued watershed protection work and collaboration during the pandemic and move in-person programming online.

Organization: Lake Champlain Committee

Contact Person: Lori Fisher

Mailing Address: 208 Flynn Ave.
Bldg. 3 Studio 3-F
Burlington, VT 05401

Phone: 802-658-1421

E-mail: lorif@lakechamplaincommittee.org

Website: https://www.lakechamplaincommittee.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 100089
GLFC	0100-323-019
Start Date:	5/7/2020
Close Date:	**9/15/2020**
Grant Amount:	$ 5,000.00
Non-federal Match:	$ 7,200.00
Total Amount:	**$12,200.00**

2020 COVID-19 Emergency Grant — concluded

WUV Organizational Capacity to Support Watershed Organizations During Crisis and Recovery

Project Summary

When WUV submitted the grant application in April 2020, state grants were frozen and watershed groups were uncertain whether projects would be able to move forward and if/when funding would be restored. The hiatus in the spring coupled with other Covid related project challenges, significantly impacted WUV and watershed groups' finances during the summer. This funding support was incredibly valuable managing staff costs while navigating the delay in project revenue.

Outputs:

- support for WUV's general operations
- support for the WUV director's time providing Covid-related resources, information and opportunities to watershed groups.

Outcomes:

- financial stability during this summer

Organization: Watersheds United Vermont

Contact Person: Lyn Munno

Mailing Address: 379 Elm Street
Montpelier, VT 05602

Phone: (802) 793-3887

E-mail: watershedsunited@gmail.com

Website: watershedsunitedvt.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 100082
GLFC	0100-323-019
Start Date:	5/6/2020
Close Date:	**9/14/2020**
Grant Amount:	$2,500.00
Non-federal Match:	
Total Amount:	**$2,500.00**

INFORMED AND INVOLVED PUBLIC

GOAL: Basin residents and visitors understand and appreciate Lake Champlain Basin resources, and will possess a sense of personal responsibility that results in behavioral changes and actions to reduce pollution.


LCBP

Program Highlights

In FY2020, LCBP staff:

- Collaborated with partners to expand business partner participation and outreach for the "Raise the Blade" campaign to encourage people to mow their grass to no shorter than 3 inches to improve soil and water health.
- Greeted 13,207 visitors and hosted classes in a COVID-safe space at the LCBP Resource Room at ECHO, Leahy Center for Lake Champlain.
- Coordinated production of animations and videos about the Lake Champlain phosphorus Total Maximum Daily Load (TMDL) and efforts to achieve its goals.
- Facilitated video production workshops as local watershed and community groups moved resources and outreach online during the COVID pandemic.
- Conducted outreach efforts at farmers markets, summer concerts, and Love the Lake speaker series.
- Worked with local artist to produce a Stop Aquatic Hitchhikers! sail to be rigged on a Lake Champlain Community Sailing Center boat in Burlington, VT.

LCBP

Local Grant Highlights

- Floating Classroom: The Lake George Association helped students and the public learn about Lake George aboard their Floating Classroom vessel and conducted several stream monitoring programs.
- Engaging NY Students: SUNY Plattsburgh-LC Sea Grant is working with several schools to implement water programs offered through UVM Watershed Alliance.
- Nature Centers to Rivers: The North Branch Nature Center partnered with Friends of the Winooski River to develop self guided river walks, a river festival, and expanded exhibits to encourage homeowners to take action.
- Watershed signage: OBVBM is highlighting sub-watersheds and local rivers in Québec that flow to Missisquoi Bay with small signs along roadways.


LCBP

2018 Local Implementation Grant

concluded

Creating an Educational Resource on Stormwater Management in Video Format to Expand Efforts from Two Municipalities to a Region

Project Summary

NRPC used funding to take the content developed for an annual workshop titled, "Managing Runoff on Your Property: A Do-It-Yourself Site Assessment" and turn it into video segments made available online. By providing this curriculum online it can be accessed by a larger audience on their timeframe (all at once or multiple sessions) and removes the barrier for those who cannot attend an in-person session. The outputs of this grant will be a series of videos that explain what stormwater is and walk a homeowner through steps to assess stormwater on their property. The anticipated outcomes of this project would be to raise awareness of homeowners and encourage the adoption of practices to treat stormwater on their property. Small actions by many can reduce the negative impacts that can occur after large storm events from stormwater that flows directly into Lake Champlain.

Outputs:

- 5 videos educating homeowners about stormwater and how to assess options for treating stormwater on their property.
- development of educational and outreach posts for social media

Outcomes:

- Homeowners will have increased knowledge of stormwater issues and the ability to adopt practices to treat stormwater on their property.

Organization: Northwest Regional Planning Commission

Contact Person: Amanda Holland

Mailing Address: 75 Fairfield St. St. Albans, VT 05478

Phone: 802-524-5958

E-mail: aholland@nrpcvt.com

Website: https://www.nrpcvt.com/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12527
EPA	0994-003-001
Start Date:	3/22/2018
Close Date:	**3/10/2020**
Grant Amount:	$10,000.00
Non-federal Match:	$ 1,659.00
Total Amount:	**$11,659.00**

2018 Local Implementation Grant — concluded

Education to Action: Asian Clam and Water Chestnut Inventory and Control

Project Summary

The Lake Champlain Committee developed and implemented education and outreach programs on water chestnut control in Lake Champlain. Outputs included conferring with partner agencies and the Lake Champlain Basin Program to identify and prioritize sites for water chestnut removal; program publicity and recruitment, training and support of volunteers for water chestnut removal. Harvesting efforts focused on the Black Creek Marsh Wildlife Management Area in St. Albans, Vermont.

Outputs:

- identification and prioritization of sites for water chestnut removal
- creation of a fact sheet on how to remove water chestnut for volunteer audience
- 3,000 rosettes of water chestnuts removed through this collaborative hand-pulling effort

Outcomes:

- increased public awareness of how water chestnut affects lake health
- cadre of trained citizens actively engaged in combatting aquatic invasive species.

Organization: Lake Champlain Committee
Contact Person: Lori Fisher
Mailing Address: 208 Flynn Avenue, Bldng. 3 Studio 3F Burlington, VT 05401
Phone: 802-658-1421
E-mail: lorif@lakechamplaincommittee.org
Website: https://www.lakechamplaincommittee.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12635
GLFC	0100-319-004
Start Date:	9/7/2018
Close Date:	**9/30/2020**
Grant Amount:	$6,527.00
Non-federal Match:	$1,625.00
Total Amount:	**$8,152.00**

2019 Local Implementation Grant — in progress

Ahead of the Storm: School Stormwater Implementation Pilot Project

Project Summary

Implement stormwater reduction measures at Plattsburgh High School through an integrative program that involves and engages the school and enlists the broader neighborhood community in designing, executing and maintaining the project.

Outputs:

- Implement a bio swale and rain gardens on the campus
- Install bi-lingual interpretive signs to provide ongoing education about stormwater, and ways to reduce environmental impacts
- Develop a follow-up plan to guide the school in integrating maintenance into the school curriculum

Outcomes:

- Mitigate runoff at Plattsburgh High School
- Educate and engage students and the school neighborhood in hands-on field projects to protect water quality

Organization: Lake Champlain Committee
Contact Person: Lori Fisher
Mailing Address: 208 Flynn Avenue, Building 3 Studio F3, Burlington, VT 05401
Phone: 802-658-1421
E-mail: lorif@lakechamplaincommittee.org
Website: https://www.lakechamplaincommittee.org/

Plattsburgh High School entranceway on a rainy day. Photo by Daniel Denora.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-063
EPA	0995-004-001
Start Date:	3/11/2019
Close Date:	
Grant Amount:	$45,000.00
Non-federal Match:	$13,650.00
Total Amount:	**$58,650.00**

2020 Local Implementation Grant — in progress

Augmented Reality Sandbox Model

Project Summary

Through the purchase of this ARS educational model, the Champlain Watershed Coalition of New York (CWICNY), in conjunction with Up Yonda Farm and its partners will be able to update and expand their water quality curriculum to the 12,000 visitors from local school groups, home owners and vacationers that rent houses on Lake George. Through the installation of this model visitors will have an opportunity to realize their role in a watershed. Naturalists at the facility can deliver a fun and age appropriate water quality curriculum reinforcing the mission and goals of the LCBP.

Outputs:

- purchase and installation of ARS educational model
- development of curriculum and educational materials

Outcomes:

- invaluable resource in helping people conceptualize and understand watershed boundaries, topography and how different areas are more susceptible to run-off
- increase in the public's knowledge of watershed issues and a greater opportunity for behavioral change.

Organization: CWICNY

Contact Person: Corrina Aldrich

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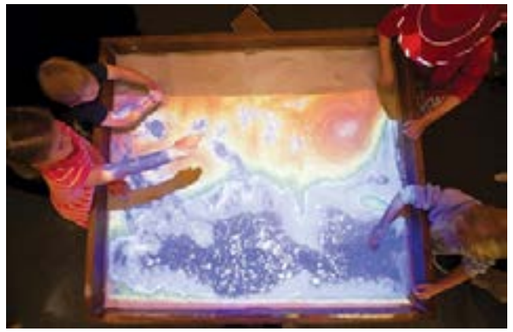
Warrensburg, NY 12885

Phone: 518-623-3119

E-mail: Corrina.aldrich@ny.nacdnet.net

Website: https://www.cwicny.org/



Children play in the University of Wyoming Geology Department's Augmented Reality Sandbox which displays a topographic map that can be manipulated by moving the sand in Laramie, Wyo. (Jeremy Martin/Laramie Daily Boomerang via AP)

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-052
EPA 0346-004-001
Start Date: 6/12/2020
Close Date:
Grant Amount: $26,000.00
Non-federal Match: $ 5,000.00
Total Amount: **$31,000.00**

2020 Local Implementation Grant — in progress

Developing the New York Watershed Alliance 2020

Project Summary

The proposed project will facilitate and enhance the current efforts of the University of Vermont and SUNY Plattsburgh to develop the successful UVM Extension Watershed Alliance program in New York Schools. Watershed Alliance programming will be implemented in Kindergarten through 12th grade schools in the Lake Champlain Basin of New York. In addition Watershed Alliance K-12 programming will be promoted across the Basin and new hands-on STEM education programming twill be developed to engage students. The proposed project is critical to allow us to hire qualified staff to complete the NY expansion of a highly successful program.

Outputs:

- list of invested teachers and partners
- identify and develop programming with at least 3 K-12 schools, train student interns for in class programming
- identify teachers and implement STEM programming
- survey student outcomes
- outreach to schools for following year

Outcomes:

- enhance the current efforts of the UVM/SUNY Plattsburgh Watershed Alliance program
- better understanding of local watersheds and their issues in NY K-12 classrooms

Organization: SUNY Plattsburgh

Contact Person: Tim Mihuc

Mailing Address: 101 Broad Street
Plattsburgh, NY 10901

Phone: 518-564-3039

E-mail: mihuctb@plattsburgh.edu

Website:

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-073
EPA 0346-004-001
Start Date: 7/15/2020
Close Date:
Grant Amount: $33,000.00
Non-federal Match:
Total Amount: **$33,000.00**

2019 Local Implementation Grant

in progress

Developing the New York Watershed Alliance

Project Summary

The project will facilitate and enhance the current efforts of the University of Vermont and SUNY Plattsburgh to develop the successful UVM Extension Watershed Alliance program in New York Schools. We will Implement Watershed Alliance programming in Kindergarten through 12th grade schools in the Lake Champlain Basin of New York. In addition we will promote Watershed Alliance K-12 programming across the Basin and develop new hands-on STEM education programming to engage students and work closely with the Champlain Basin Education Initiative efforts. The proposed project is critical to allow us to hire qualified staff to complete the NY expansion of a highly successful program in Vermont.

Outputs:

- Develop a New York Watershed Alliance program for K-12 students within the Lake Champlain Basin
- Develop new STEM educational curriculum
- Implement Watershed Alliance programming in New York K-12 classrooms within the Lake Champlain Basin

Outcomes:

- Enhance the current efforts of the UVM/SUNY Plattsburgh Watershed Alliance program
- A better understanding of local watersheds and their issues in NY K-12 classrooms

Organization: SUNY Plattsburgh

Contact Person: Tim Mihuc

Mailing Address: 101 Broad Street
Plattsburgh, NY 10901

Phone: 518-564-3039

E-mail: mihuctb@plattsburgh.edu

Website:

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-065
EPA 0995-004-001
Start Date: 4/5/2019
Close Date:
Grant Amount: $35,210.00
Non-federal Match:
Total Amount: **$35,210.00**

2020 Local Implementation Grant

in progress

From Arrowhead to Yellow Pond Lily: An Outreach Campaign for Lake Champlain's Native Aquatic Plants

Project Summary

Aquatic plants are a common sight in the Lake Champlain Basin's waterbodies, yet the roles native species play in aquatic ecosystems are undervalued. Too often, native plants are viewed as weeds, rather than integral components of freshwater lake ecology. The goal of this project is to raise awareness about the critical role aquatic plants play in the Basin; it is an educational opportunity to connect individuals and communities to the Lake and increase their awareness about native plants and related pollution and aquatic invasive species (AIS) spread prevention issues. We will make science accessible via a combination of photographs, illustrations, descriptions of key plant characteristics, habitats, and how aquatic plants contribute to the ecological integrity of the Lake, as well as natural history notes.

Outputs:

- suite of educational materials including a set of durable pocket-sized native plant identification cards, educational info sheets, and a poster, distributed via targeted mailings, emailings, event tabling, and partners
- informal and formal field walks, workshops, or videos for the general public and teachers—these may occur virtually or in-the-field
- outreach via our Lake Look natural history and issues press column, social media posts profiling individual native plant species, and web content (info sheets will be available as downloadable PDFs).

Outcomes:

- impact lake users' views on native plants (not weeds!) to achieve a long-term increase in their knowledge of watershed issues and a change in personal behavior
- folks to be more supportive of projects that maintain and improve native plant populations, while simultaneously promoting AIS spread prevention behaviors to benefit the Basin's ecological integrity.

Organization: Lake Champlain Committee

Contact Person: Lori Fisher

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Burlington, VT 05401

Phone: 802-658-1421

E-mail: lorif@lakechamplaincommittee.org

Website: https://www.lakechamplaincommittee.org/

American eelgrass (Vallisneria americana), which often accumulates along shorelines in large masses in the autumn, is an important food source for water birds. American eelgrass also provides shallow water fish habitat, as it offers shade and shelter, and harbors aquatic insects. Photo by LCC Director of Science & Water Programs, Lauren Sopher

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-065
EPA 0346-004-001
Start Date: 5/20/2020
Close Date:
Grant Amount: $40,000.00
Non-federal Match: $20,469.00
Total Amount: **$60,469.00**

2020 Local Implementation Grant — in progress

Lake George Floating Classroom and Stream Monitoring 2020

Project Summary

Funding will be used towards the hands-on Floating Classroom program, central to the mission of the Lake George Association, and a core element of its educational program. It provides a real-world learning experience on environmental topics. Participants investigate different aspects of the lake's ecosystem through sampling techniques and learn how to protect and preserve this living water body. The project continues to reach new audiences and adapt the curriculum to educate Lake users about watersheds and water quality. The Stream Monitoring Program gives students a look at the Lake George watershed in order to learn about the importance of the streams within the watershed. Students conduct water quality monitoring and learn about stream ecology, pollution, and conserving local streams.

Outputs:

- over 2,000 people educated on The Floating Classroom, a hands-on adventure aboard the Rosalia Anna Ashby, a 40' Corinthian Catamaran custom-built for the program where participants learn about the Lake George watershed, the quality of the lake's water, and how to protect it.
- over 1,400 students educated through at least 75 stream monitoring programs, a field trip that teaches water quality monitoring through collection and identification of stream macroinvertebrates. Students will also learn about how soils, native and invasive vegetation, erosion, and other natural processes and characteristics of the watershed affect the lake.

Outcomes:

- education of students, homeowners, residents, and the general public about a variety of environmental topics related to water quality through hands-on water quality testing
- continue to be effective at raising awareness about water quality issues and affecting behavioral change that will help protect the Lake Champlain Basin

Organization: Lake George Association
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Lake George, NY 12845
Phone: 518-668-3558
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Website: www.lakegeorgeassociation.org

- working to create stewards for present and future generations

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-040
EPA	0346-004-001
Start Date:	4/3/2020
Close Date:	
Grant Amount:	$42,574.00
Non-federal Match:	$12,300.00
Total Amount:	**$54,874.00**

2020 Local Implementation Grant — in progress

Soil Builders - Education for Action: Using Compost to Prevent Erosion and Improve Water Quality in the Lake Champlain Basin

Project Summary

This project aims to mitigate water pollution and increase understanding of the connections between water quality, soil health, nutrient management, organics diversion, and climate change adaptation. *Soil Builders* workshops will provide hands-on training that makes the connection between soil health, water quality, and climate change and adaptation with an overarching goal of educating participants on the environmental and economic benefits of using compost in development, road construction, landscaping, and land management projects. The curriculum developed, focused on compost- and soil-related eco-literacy for Lake Champlain Basin decision-makers, professionals and advocates, will be made available to partners throughout the LCB. The workshops will be evaluated in terms of effecting behavioral and community level change, perspectives toward, and understanding of mechanisms for improving the water quality of Lake Champlain, as evidenced by the development of action plans for future projects and demonstrations sites.

Outputs:

- outreach and partnership building with stakeholders and interviews with well-informed people to ensure the curriculum will meet the identified needs for different target audiences
- develop *Soil Builders* workshop curricula informed by stakeholder needs assessment
- convene 5-7 hands-on *Soil Builders* Workshops, with workshop evaluations and follow-up outreach.

Outcomes:

- effecting behavioral and community level change, perspectives toward, and understanding of mechanisms for improving the water quality of Lake Champlain, as evidenced by the development of action plans for future projects and demonstrations sites.

Organization: Composting Association of Vermont
Contact Person: Natasha Duarte
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Phone: 802-373-6499
E-mail: Natasha@CompostingVermont.org
Website: CompostingVermont.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-069
EPA	0346-004-001
Start Date:	6/12/2020
Close Date:	
Grant Amount:	$40,000.00
Non-federal Match:	$21,500.00
Total Amount:	**$61,500.00**

2019 Local Implementation Grant — concluded

Spreading Our Roots: Engaging the Local Community

Project Summary

In cooperation with the Champlain Valley Native Plant Restoration Nursery (CVNPRN), PMNRCD provided education and watershed-wide outreach to a wide variety of individuals.

Outputs:

- two workshops including developing material for future presentations (over 50 participants)
- participation in 6 community events around the watershed (promoting native plants, water quality, and the benefits of forested riparian buffers),
- increased volunteer/participation numbers
- increased presence of CPVNPRN and the District in the community through educational events including 6 Upward Bound internships, outreach at Green Mountain College, a field trip day to the Nursery for 26 local second graders, an Open House (~45 adults and children), and 3 volunteer days (~30 people)
- expanded communication using newly-created social media

Outcomes:

- Increased number and variety of community members with knowledge and appreciation about the benefits of forested riparian and shoreline buffers, native plants, water quality, and the Restoration Nursery
- Increased visibility within the community and new connections with area organizations such as Rutland Audubon Society

Organization: Poultney-Mettowee NRCD

Contact Person: Hilary Solomon

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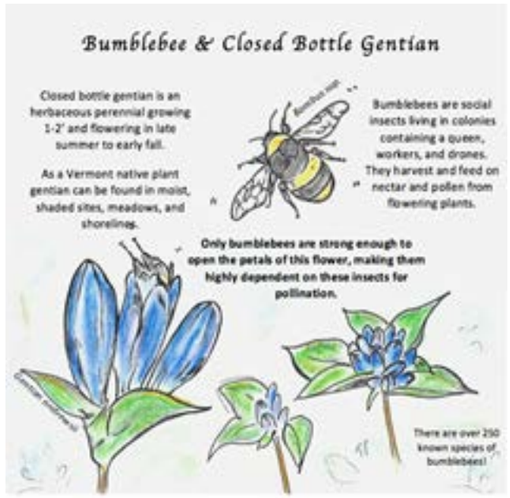
Poultney, VT 05764

Phone: 802-558-3515

E-mail: hilary@pmnrcd.org

Website: www.pmnrcd.org



One of 4 species modules created for 2 workshops on pollinators and native plants

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-062
EPA	0995-004-001
Start Date:	5/16/2019
Close Date:	**3/11/2020**
Grant Amount:	$23,207.00
Non-federal Match:	$ 9,846.00
Total Amount:	**$33,053.00**

2019 Local Implementation Grant — concluded

Stream Monitoring Program and Outdoor Classroom

Project Summary

The Lake George Association's Stream Monitoring Program gave students a look at the Lake George watershed as a whole in order to learn about the importance of the streams within the watershed. Students conducted water quality monitoring by collecting and identifying stream macroinvertebrates, and also learned about stream ecology, pollution, and conserving local streams. Additionally, the creation of an outdoor classroom along the stream enhanced the students' learning experience. Sixty stream monitoring programs were conducted.

Outputs:

- 60 stream monitoring programs conducted, 1,497 participants, 24 schools/organizationsinterpretative panels about streams
- summer camp programming offered
- 9 benches and an educator's table constructed for Outdoor Classroom

Outcomes:

- Better understanding of the connections within the watershed
- Develop environmental monitoring skills
- Enhanced classroom opportunity

Organization: Lake George Association

Contact Person: Kristen Wilde

Mailing Address: PO Box 408, 2392 State Route 9
Lake George, NY 12845

Phone: 518-668-3558

E-mail: lkwilde@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-053
GLFC	0100-323-004
Start Date:	4/5/2019
Close Date:	**2/20/2020**
Grant Amount:	$16,820.00
Non-federal Match:	$ 1,351.00
Total Amount:	**$18,171.00**

2020 Local Implementation Grant — in progress

The Giant Lake Champlain Basin Map Project

Project Summary

In 2020-2021 Lake Champlain Maritime Museum (LCMM) will travel to NY, VT and QC schools with a giant format Lake Champlain Basin map implementing lessons that connect the human and natural history of the watershed. Planned lessons and directed play will inspire every student in the Lake Champlain watershed to view Lake Champlain as their lake and to view stewardship as their responsibility. Teachers will develop tangible, physically-active, place-based ways to connect geography and science with watershed stewardship

Outputs:

- multiple school visits, multiple new lesson plans
- training for teachers including webinars, peer-to-peer teacher training, and feedback from students and teachers
- webinars co-led by instructors and teachers will expand impact within our watershed and in adjoining watersheds.

Outcomes:

- increased comprehension of abstract or remote human impacts based on tangible tools
- increased understanding of spatial/ecological relationships between distant corners of the watershed and Lake Champlain
- new perspectives on how students can positively affect the Basin's future in a time of climate change.

Organization: Lake Champlain Maritime Museum

Contact Person: Elizabeth Lee

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Vergennes, VT 05491

Phone: 802-475-2022 x 102

E-mail: elizabethl@lcmm.org

Website: https://www.lcmm.org/

NEIWPCC Code: L-2020-064
GLFC 0100-328-004
Start Date: 5/20/2020
Close Date:
Grant Amount: $28,540.00
Non-federal Match: $ 5,200.00
Total Amount: **$33,740.00**

2020 Local Implementation Grant — in progress

Wind, Waves, and Variables – Lessons about the Lake Champlain Basin

Project Summary

Funds will be used to establish curriculum and teach lessons about pertinent social and physical sciences of the Lake Champlain Basin to 5th or 6th grade students at 4 schools located in Grand Isle and Franklin counties. Friends of Northern Lake Champlain (FNLC), along with an educational partner, will visit schools to teach lessons and provide field trips that will focus on sound principles of data collection, interviewing, observation, and interpretation. FNLC will collect photos, audio files, sketches, reflection papers, and reports to help solidify and foster life-long commitments in the students to educate themselves and make informed decisions about Lake Champlain. The main outcome of the course is that the pupils will gain confidence in participating, and be capable of directing their future actions in a fashion that minimizes deleterious effects to Lake Champlain

Outputs:

- design cuuriculum and teach a series of classes

Outcomes:

- pupils will gain confidence in participating
- capable of directing future actions in a fashion that minimizes deleterious effects to Lake Champlain

Organization: Friends of Northern Lake Champlain

Contact Person: Patrick Daunais

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Website: https://www.friendsofnorthernlakechamplain.org

NEIWPCC Code: LS-2020-062
EPA 0346-004-001
Start Date: 5/26/2020
Close Date:
Grant Amount: $27,485.00
Non-federal Match: $ 6,752.00
Total Amount: **$34,237.00**

2020 Program Grant — in progress

Diving in - Theater Ads

Project Summary

This project is for the post-pandemic distribution of the TMDL tool developed by Peregrine Productions for the *Video and Animation Series Highlighting Water Quality Success Stories in the Lake Champlain Basin*. An ad buy is reserved at three local movie theaters, that was originally to air in summer 2020, a rotation of the five individual 30 second PSAs in conjunction with the three educational TMDL animations.

Outputs:

- rotation of five individual 30-second PSAs in conjunction with three educational TMDL animations at movie theaters.

Outcomes:

- improve the general understanding of the Lake Champlain watershed condition
- raise awareness about successful practices towards reaching levels mentioned in the TMDL and offer these successes as examples for the public to get involved.

Organization: Peregrine Productions

Contact Person: Vince Franke

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Waterbury, VT 05676

Phone: (802) 318 - 5289

E-mail: vince@peregrineproductions.com

Website: vince@peregrineproductions.com

Lake Champlain Basin Program

NEIWPCC Code: PO 100018
EPA 0994-003-001
Start Date:
Close Date:
Grant Amount: $3,775.00
Non-federal Match:
Total Amount: **$3,775.00**

2019 Program Grant — in progress

IJC Outreach Coordination

Project Summary

Provide US outreach support and services to the Lake Champlain Richelieu River Study Board, to ensure public awareness of, and opportunities for public input to, the Study Board's work.

Outputs:

- newsletter content, 4 topical fact sheets, periodic website updates, key questions q&a and news releases
- constituent meetings, powerpoint presentation
- tabletop display, coordinated public events

Outcomes:

- ensure public awareness of, and opportunities for public input to, the Study Board's

Organization: Behan Communications

Contact Person: Bill Richmond

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Glens Falls, NY 12801

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E-mail: bill.richmond@behancom.com

Website: www. behancommunications.com

Lake Champlain Basin Program

NEIWPCC Code: L-2019-082
IJC 0986-004
Start Date: 8/2/2019
Close Date:
Grant Amount: $56,200.00
Non-federal Match:
Total Amount: $56,200.00

2019 Program Grant — in progress

Lake Champlain Basin Program Website Redesign

Project Summary

Redesign and programming of the Lake Champlain Basin Program (LCBP) website. The new website will be designed in WordPress for ease of updates in the future and will be designed in a mobile-first scrolling format.

Outputs:

- master templates of desktop version of new website
- responsive site designs for tablet and mobile views

Outcomes:

- The project will result in an updated online presence for the LCBP, including current web design and functionality standards and accurate and relevent content. The website will effectively inform the public about watershed issues and foster stewardship actions that either improve the condition of the Lake.

Organization: Taylor Design

Contact Person: Dan Taylor

Mailing Address: 247 Main Street
Stamford, CT 06901

Phone: 203-969-7200

E-mail: dan@taylordesign.com

Website: www.taylordesign.com

NEIWPCC Code: L-2019-086
EPA 0994-003-001
Start Date: 9/13/2019
Close Date:
Grant Amount: $39,375.00
Non-federal Match:
Total Amount: **$39,375.00**

2020 Program Grant — in progress

Public Awareness and Engagement Survey

Project Summary

Lake Champlain Basin watershed experts and University of Vermont social science research specialists will conduct a survey and appropriate analyses 1) to assess public knowledge of lake issues and public engagement in watershed stewardship behaviors in the Lake Champlain Basin, 2) to assess outcomes of education and outreach efforts of the Lake Champlain Basin Program (LCBP) and its partners, and 3) to identify specific sectors of the public that will benefit from future outreach efforts of the Lake Champlain Basin Program. The survey will include a statistically representative sample of New York, Vermont, and Quebec residents living within the watershed, and will help achieve the goals of the LCBP's long-term management plan: *Opportunities for Action: An Evolving Plan for the Future* of the Lake Champlain Basin. It will be designed to be repeatable to facilitate measurement of broad-scale, long-term changes in knowledge, attitudes, and actions over time.

Outputs:

- development of a repeatable electronic survey to facilitate measurement of broad-scale, long-term changes in knowledge, attitudes, and actions over time

Outcomes:

- improved understanding of public knowledge, attitudes and behaviors related to water quality and ecosystem health of the basin
- improved ability for LCBP and its partners to develop and implement targeted education and outreach efforts to specific audiences or locations, ultimately to promote improved water quality as a result of actions taken by members of the public.

Organization: UVM

Contact Person: Jane Kolodinsky

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202 Morrill Hall, Burlington, VT 05405

Phone: 802-656-4616

E-mail: jkolodin@uvm.edu

Website: https://www.uvm.edu/crs

As an example of the type of outreach LCBP does, Colleen Hickey works with a member of the public to explain why it is important to raise the blade on lawnmowers to a minimum of 3" while tabling at a summer 2019 program. Photo by Kris Stepenuck.

NEIWPCC Code: L-2020-074
GLFC 0100-323-004
Start Date: 8/13/2020
Close Date:
Grant Amount: $118,500.00
Non-federal Match: $ 18,960.00
Total Amount: **$137,460.00**

2019 Program Grant — concluded

State of the Lake Exhibit II

Project Summary

This project's aim was to broaden the exposure of the *State of the Lake Report* (SOL) through the installation of an interactive Lake News Studio exhibit inside ECHO, Leahy Center for Lake Champlain and of wayside interpretive panels along the Burlington Waterfront.

This project was a joint effort among ECHO, the Lake Champlain Basin Program (LCBP), and WCAX News. ECHO designed the exhibit experience and produced panel graphics. LCBP and ECHO worked collaboratively to develop script and panel text. And, WCAX produced video assets for integration into the exhibit.

The project has accomplished developing an updatable platform for engaging a broader swath of the public in the content of the *State of the Lake Report*. As new State of the Lake Reports are released, ECHO will be able to update exhibit and panel content to reflect the most recent report findings and priorities with limited development time and production costs.

Outputs:

- one exterior exhibit in ECHO free public space
- one interior interactive exhibit: six interactive Lake News Studio stories
- Interactive Lake News Studio that allows museums visitors to record one of six possible Lake News stories and edit their story together with one of six Lake stewardship public service announcement

Outcomes:

- interpretation of technical information for the public
- enhance educator and student learning about watershed issues and use education to empower the general public to reduce phosphorus contributions.

Organization: ECHO, Leahy Center for Lake Champlain

Contact Person: Nina Ridhibhinyo

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Burlington, VT 05401

Phone: (802)864-1848 x 142

E-mail: nina@echovermont.org

Website: http://www.echovermont.org/

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-073
EPA 0994-003-001
Start Date: 4/30/2019
Close Date: **11/7/2019**
Grant Amount: $28,793.00
Non-federal Match:
Total Amount: **$28,793.00**

2020 Program Grant — in progress

Streamwise Phase 1

Project Summary

The Lake Champlain Basin Program (LCBP) is seeking to develop a Stream Wise Award Program in the Lake Champlain Basin, modeled after the Lake Wise Award Program in Vermont, to educate and incentivize communities to engage in riparian stewardship activities with a consistent marketing message and brand. The award program will be developed with federal, state, and provincial input, incorporating practices from existing programs, such as VT-based Trees for Streams, NY-based Trees for Tribs, and QC-based Bandes Riveraines, and with regard for the capacity of local organizations to run the program successfully. The Project Team will accomplish this goal in three main phases:

Outputs:

- establish Foundation/Resource Library
- solicit Feedback/Program Outline
- program Development/Branding and Communications Plan

Outcomes:

- educate and incentivize communities to engage in riparian stewardship activities

Organization: Fluid Consulting

Contact Person: Dana Allen

Mailing Address: 48 Stowe Street
Waterbury, VT 05676

Phone: 802.999.9762

E-mail: dana@fluidstateconsulting.com

Website: www.fluidstateconsulting.com

Lake Champlain Basin Program

NEIWPCC Code: L-2020-075
GLFC 0100-328-004
Start Date: 8/10/2020
Close Date:
Grant Amount: $49,975.00
Non-federal Match:
Total Amount: **$49,975.00**

2019 Program Grant

concluded

Video and Animation Series Highlighting Water Quality Success Stories in the Lake Champlain Basin

Project Summary

Media today is dominated by sensational stories and negative examples to catch short term interest. With this climate, there is an interest in hearing success stories and examples of people making a change and a difference. The community in New York and Vermont surrounding Lake Champlain is full of role models that we can all learn from and be inspired by. Peregrine Productions produced high quality, eminently relatable pieces that have a human face and voice at their core. A casual documentary interview format to give each video "story" both range and depth was utilized. The documentary approach strengthened the content and conveyed authenticity while sharing successes that inform and inspire the audience around the *Opportunities for Action* (OFA)'s main goals. This series aims to better inform the public and to inspire involvement. The goal by showcasing success stories and the need for more action, is that people will get involved and make changes that will result in improvements in the other three goals of the OFA. By choosing and profiling a variety of success stories there are multiple opportunities for a wide range of viewers to relate and subscribe to change.

Outputs:

- 11 two minute videos
- 5 30-second PSAs
- 3 30-second animations
- 40-minute documentary

Outcomes:

- improve the general understanding of the Lake Champlain watershed condition
- raise awareness about successful practices towards reaching levels mentioned in the TMDL and offer these successes as examples for the public to get involved.

Organization: Peregrine Productions

Contact Person: Vince Franke

Mailing Address: 92 S Main St. #3
Waterbury, VT 05676

Phone: (802) 318 - 5289

E-mail: vince@peregrineproductions.com

Website: vince@peregrineproductions.com

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-079
EPA 0994-003-001
Start Date: 6/25/2019
Close Date: **8/24/2020**
Grant Amount: $49,825.00
Non-federal Match:
Total Amount: **$49,825.00**

2019 Local Implementation Grant

concluded

Adirondack Coast Cultural Alliance (ACCA): Museum Days

Project Summary

The Adirondack Coast Cultural Alliance (ACCA), on whose behalf the North Country Chamber of Commerce (NCCC) received this grant, worked with seventeen cultural and historical sites around Clinton County to hold a two-day educational and outreach event June 15-16, called Adirondack Coast Museum Days. This event raised awareness of the Adirondack Coast's plentiful cultural and historical resources, and provided free access to those resources for community members and visitors. It also provided a unique educational opportunity for the public and spurred collaboration and inter-organizational communication and cross-promotion among participating sites.

Outputs:

- 17 sites offered free admission during 2-day education and outreach event, 'Museum Days'
- partnered with local media, tourism outlets, libraries, public school districts and homeschooling group
- visitor and volunteer statistics collected from participating sites, such as 1615 total visitation

Outcomes:

- community awareness of local and regional art and history sites
- collaboration, inter-organizational communication and cross-promotion among cultural and historical sites
- grow volunteer and community involvement base
- increase access to regional cultural offerings

Organization: North Country Chamber of Commerce

Contact Person: Leni Vrendalis

Mailing Address: 7061 US 9, PO Box 310
Plattsburgh, NY 12901

Phone: 518-335-8447

E-mail: coordinator@adkcoastcultural.org

Website: www.adkcoastcultural.org

Lake Champlain Basin Program

NEIWPCC Code: L-2019-055
GLFC 0100-323-004
Start Date: 4/15/2019
Close Date: **2/11/2020**
Grant Amount: $4,000.00
Non-federal Match: $3,000.00
Total Amount: **$7,000.00**

2019 Local Implementation Grant

in progress

Ahead of the Storm - School Stormwater Education and Outreach

Project Summary

LCC will partner with Browns River Middle School and St. Albans City Elementary School, and will work with each school to involve the school community in stormwater education programs. The program will position the schools to seek future funding for stormwater remediation projects and implement the assessment recommendations.

Outputs:

- Develop an educational program tailored to school individual stormwater assessment
- Create interactive lessons for educators
- Provide on-site instruction
- Advise on development of outreach materials tailored for individual school communities

Outcomes:

- Improved understanding of stormwater assessments, mitigation and infrastructure for students, school educators and staff
- More connection between the students, the community and the local environment
- A better understanding of water quality concerns

Organization: Lake Champlain Committee

Contact Person: Lori Fisher

Mailing Address: 208 Flynn Avenue, Building 3 Studio F3, Burlington, VT 05401

Phone: 802-658-1421

E-mail: lorif@lakechamplaincommittee.org

Website: https://www.lakechamplaincommittee.org/

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-031
EPA 0995-003-001
Start Date: 3/11/2019
Close Date:
Grant Amount: $10,000.00
Non-federal Match: $13,430.00
Total Amount: **$23,430.00**

2020 Local Implementation Grant

in progress

Bringing the Lake to Life: Using 360-Degree Video to Connect Communities to Lake Champlain and its Landscapes

Project Summary

The objectives of this project are to raise awareness and appreciation for the unique natural communities that surround Lake Champlain. Deliverables will be two three- to five-minute 360-degree videos featuring stunning images, inspirational soundtracks, and voice-overs. The first video will immerse the viewer in the four seasons of Lake Champlain as seen from a number of scenic locations. The second video will immerse the viewer in four natural communities found within the Trembleau Mountain Tract in Chesterfield, New York. Tangible outputs from the project will include two short 360-videos made widely available on the Internet and three portable Virtual Reality Display headsets preloaded with the project videos for use at community events in New York and Vermont.

Outputs:

- two 3-5 minute 360-degree videos made widely available on the Internet
- three portable Virtual Reality Display headsets preloaded with the project videos for use at community events in New York and Vermont.

Outcomes:

- raise awareness and appreciation for the unique natural communities that surround Lake Champlain
- connect people to Lake Champlain and its surrounding landscapes and diverse ecosystems

Organization: Lake Champlain Land Trust

Contact Person: Chris Boget

Mailing Address: One Main Street, Ste. 205 Burlington, VT 05401

Phone: (802) 862-4150

E-mail: office@lclt.org

Website: https://www.lclt.org/

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-060
EPA 0346-004-001
Start Date: 6/2/2020
Close Date:
Grant Amount: $9,875.00
Non-federal Match:
Total Amount: **$9,875.00**

2020 Local Implementation Grant — in progress

Clinton County Watershed Education and Outreach

Project Summary

Clinton County SWCD will provide hands-on learning experiences through outreach programs in local schools, state parks, and public workshops. The SWCD will hold programs on its role in the watershed, streams as bioindicators for our water's health, and the importance of soil health for water quality. With a better understanding of the watershed and the effects our actions have, these education and outreach programs will help citizens become more conscious of their impact on the watershed and lead to better practices and involvement in future stewardship roles.

Outputs:

- development of outreach and educational materials and programs
- purchase watershed model, Soil Health Workshop equipment and stream collection equipment
- hold 6 workshops for general public and students about the importance of water and soil health

Outcomes:

- more informed public that will greatly influence the future of regional natural resources
- raising awareness about the watershed in the classroom, holding public informational workshops, and educating agricultural producers about the importance of best management practices participants will have a better understanding of the water quality issues affecting Lake Champlain

Organization: Clinton County SWCD

Contact Person: Jillian Zajac

Mailing Address: 6064 Route 22, Suite 1
Plattsburgh NY 120901

Phone: (518) 561-4616 ext.3

E-mail: jillian.zajac@ccsoil-water.com

Website: www.clintoncountyswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-046
EPA	0346-004-001
Start Date:	4/10/2020
Close Date:	
Grant Amount:	$8,509.00
Non-federal Match:	
Total Amount:	**$8,509.00**

2020 Local Implementation Grant — in progress

Connecting the North Branch Nature Center to the North Branch River

Project Summary

The North Branch Nature Center offers trails, exhibits, educational programs, summer camps, lectures, workshops, outings, and citizen science opportunities. While it has grown considerably in the past few years in terms of offerings and infrastructure, there is a need to increase the connection of programs and visitors to the river the Center is named after. The Center will partner with the Friends of the Winooski River to improve and develop river-related programming to include a series of guided river walks, a river festival, expansion of an aquarium exhibit, and a self-guided river tour. The emphasis in all of these efforts will be to encourage visitors not only to appreciate streams and rivers, but also to protect them by taking actions such as absorbing stormwater at home, planting riparian buffers along streams, preserving forestland, and maintaining gravel roads and driveways.

Outputs:

- series of weekly (4-5) community river walks and one public lecture/workshop
- develop and print reusable self-guided river tour brochures for visitors
- an expanded aquarium exhibit
- develop and hold a day-long river festival to be held the summer or fall of 2021

Outcomes:

- better appreciation of streams and rivers among the community
- more informed public that will take action to avoid activities that adversely affect waterways, install best management practices, and support statewide river and lake protection legislation
- build awareness through informal learning of Lake Champlain Basin issues across all age groups and facilitating changes in behavior and actions of citizens

Organization: North Branch Nature Center

Contact Person: Shawn White

Mailing Address: P.O. Box 777
Montpelier, VT 06501

Phone: 802-371-8988

E-mail: shawn@winooskiriver.org

Website: https://northbranchnaturecenter.org/

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-067
EPA	0346-004-001
Start Date:	6/26/2020
Close Date:	
Grant Amount:	$ 9,187.00
Non-federal Match:	$ 1,952.00
Total Amount:	**$11,139.00**

2019 Local Implementation Grant — in progress

Connection and Communication Series

Project Summary

The MRBA Connection and Communication Series is focused on connecting with community members in our watershed in order to discuss the importance of water quality. Multiple avenues will be employed to reach as many people as possible; rainfall simulator to local classrooms and community events to teach about healthy soils and practices that can be used to improve water quality. MRBA will also highlight those practices already being done by conducting interviews with landowners that the MRBA has worked with to plant riparian buffers and install other water quality practices; these interviews will be made public through a series of articles, and through a series of condensed postcard-sized stories. Additionally, MRBA will conduct short (~30 second) video interviews with a variety of watershed residents who will talk about why clean water is important to them and express thanks to those landowners who are working to protect and improve streams and rivers. Through these projects a connection will be made with our diverse watershed population, helping communicate the role we all play in keeping our water healthy.

Outputs:

- Developed programs, presentations, and print material to be used in classrooms, at local community events, and in area news outlets
- Interviewed landowners who have received assistance from MRBA for riparian buffer improvement and other water quality improvement practices

Outcomes:

- Educated school age students and local residents in the importance of conservation management practices and the importance of water conservation
- A more connected community to its watershed

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: MRBA@pshift.com

Website: https://www.mrbavt.com/

NEIWPCC Code:	LS-2019-028
EPA	0995--004-001
Start Date:	4/1/2019
Close Date:	
Grant Amount:	$ 6,893.00
Non-federal Match:	$ 3,680.00
Total Amount:	**$10,573.00**

2020 Local Implementation Grant — in progress

Dams in the Champlain Valley

Project Summary

The *Dams in the Champlain Valley* high school education program will enlist participating students in research about dams in their local areas with the purpose of teaching about the complex history, impact, and management of dams in the Champlain watershed. As outputs, students will visit and research dam sites near their school in order to contribute to environmental knowledge within their communities, culminating in a collaborative GIS mapping effort to share information. The outcome of the project will be increased awareness in both students and local communities about conservation and stewardship issues relating to dams in their area.

Outputs:

- students will visit and research dam sites near their school
- GIS mapping project

Outcomes:

- increased awareness in both students and local communities about conservation and stewardship issues relating to dams in their area

Organization: Lake Champlain Maritime Museum

Contact Person: Elizabeth Lee

Mailing Address: 4472 Basin Harbor Road
Vergennes, VT 05491

Phone: 802-475-2022 x 102

E-mail: elizabethl@lcmm.org

Website: https://www.lcmm.org/

NEIWPCC Code:	LS-2020-035
EPA	0346-004-001
Start Date:	4/23/2020
Close Date:	
Grant Amount:	$9,707.00
Non-federal Match:	$ 700.00
Total Amount:	**$10,407.00**

2019 Local Implementation Grant — concluded

Discovering the Ausable: An Aquatic Stewardship Program 2019

Project Summary

ADK (Adirondack Mountain Club) and Ausable River Association (AsRA) teamed up to provide a once-in-a-lifetime experience for high schoolers age 13-16. Discovering the Ausable: An Aquatic Stewardship Program provided an immersive experience in aquatic ecology, hands-on science, and stewardship, while camping, paddling, and learning about responsible recreation. In this, the fifth year of the program, eight students camped at ADK's Heart Lake Program Center outside of Lake Placid, NY for five days while learning how to paddle safely, about watersheds, performing a variety of different chemical, physical, and biological tests on lakes and other water bodies within the Ausable River watershed, learning about aquatic invasive species, and performing a clean-up at the mouth of the Ausable River by Lake Champlain.

Outputs:

- provided immersive program with opportunities to learn about aquatic ecology and watershed stewardship concepts while nurturing a love of recreation and the outdoors
- training in water quality sampling techniques, wilderness preparedness, environmental ethics, and camping skills
- protocols for monitoring water quality, including but not limited to phosphorus, nitrates, chlorides, alkalinity, and macroinvertebrates
- support for participant-created action plans to improve water quality

Outcomes:

- Heightened environmental literacy in area youth

Organization: Adirondack Mountain Club
Contact Person: Seth Jones
Mailing Address: 814 Goggins Road, Lake George, NY 12845
Phone: 518-523-3480 x19
E-mail: seth@adk.org
Website: www.adk.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-067
EPA 0995-004-001
Start Date: 4/18/2019
Close Date: **3/31/2020**
Grant Amount: $ 9,061.00
Non-federal Match: $ 3,521.00
Total Amount: **$12,582.00**

2020 Local Implementation Grant — in progress

Discovering the Ausable: An Aquatic Stewardship Program 2020

Project Summary

This program will inspire in area youth a passion for the environment and our water resources while also giving them practical hands-on skills in the field of aquatic ecology. Both the Adirondack Mountain Club and the Ausable River Association believe that today's youth are tomorrow's environmental leaders and that a connection to the natural world, built through significant experiences, is a critical step in building a stewardship ethic. Over the past five years, forty participants have been excited to learn about water quality monitoring and be a part of data collection that has furthered our understanding of the threats facing the Ausable River.

Outputs:

- 10 youth will spend time outdoors and learn basic outdoor recreational skills, including Leave No Trace outdoor ethics, basic wilderness preparedness and safety, paddling skills, and overnight camping skills
- participants will learn the fundamentals of limnology and stream ecology and conduct physical, chemical, and biological measurements of both lakes and streams
- participants will collect vertical profiles of temperature, dissolved oxygen, specific conductance, pH, and measure phosphorus, nitrate, chloride, and alkalinity from a surface water sample of both for Heart Lake and Mirror Lake.
- participants will assess the water quality of Marcy Brook using benthic macroinvertebrates.
- participants will produce action plans to improve water quality in their local communities.

Outcomes:

- heightened environmental literacy of area youth
- knowledge and experience in watershed stewardship and learn about career opportunities within the field.

Organization: Adirondack Mountain Club
Contact Person: Seth Jones
Mailing Address: 814 Goggins Road, Lake George, NY 12845
Phone: 518-523-3480 x19
E-mail: seth@adk.org
Website: www.adk.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-050
EPA 0346-004-001
Start Date: 4/23/2020
Close Date:
Grant Amount: $ 9,109.00
Non-federal Match: $ 3,528.00
Total Amount: **$12,637.00**

2019 Local Implementation Grant

in progress

Dog River Conservancy Outreach

Project Summary

CGRS's Dog River Conservancy (DRC) will develop four educational modules for the outreach program: Integrating art and architectural elements into the DRC; using drones for aerial mapping and exploration of the DRC; using electronic sensors for water quality, and developing a sensor network; and develop sites along the river to design for flood resilience. The outcomes will include four new educational modules to add to the five current, that are currently under development; two outreach events, where the new modules will be showcased; and at least three new physical models to add to the ongoing collection.

Outputs:

- develop four stand-alone educational modules to complement existing educational modules
- develop and implement two outreach events
- create three physical models for use with existing Dog River collection

Outcomes:

- well-informed, engaged community

Organization: Center for Resilience and Security at Norwich University

Contact Person: Tara Kulkarni

Mailing Address: 158 Harmon Drive
Northfield, Vermont 05663

Phone: 802-485-2268

E-mail: tkulkarn@norwich.edu

Website: www.norwich.edu/cgrs

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-064
EPA	0995-004-001
Start Date:	5/7/2019
Close Date:	
Grant Amount:	$ 9,999.00
Non-federal Match:	$ 2,021.00
Total Amount:	**$12,020.00**

2020 Local Implementation Grant

in progress

Dog River Conservancy Outreach 2020

Project Summary

Funding will be used to develop educational modules focused on water-ecosystem-community health including i. biology of sustainable water systems; ii. managing combined sewer overflows; iii. ecosystem and community health; iv. architectural influences on community and water health. These modules will build on previous LCBP funded DRC activities including the educational modules on topics ranging from the Dog River's water quality, geomorphology, history, people and culture, architectural elements, and using drones for aerial mapping and exploration of the DRC. As the outcomes for this request will include four new educational modules, at least three outreach events, and at least three new physical models, we will continue to grow our library of physical models and modules, all actively used in hands on demonstration of various watershed concepts during multiple outreach events, helping the mission DRC shares with LCBP - of engaging new stakeholders in the conversations and actions around conservation and pollution prevention.

Outputs:

- four new educational modules
- three outreach events using hands-on demonstration of various watershed concepts
- three new physical models

Outcomes:

- of engaging new stakeholders in the conversations and actions around conservation and pollution prevention

Organization: Center for Resilience and Security at Norwich University

Contact Person: Tara Kulkarni

Mailing Address: 158 Harmon Drive
Northfield, Vermont 05663

Phone: 802-485-2268

E-mail: tkulkarn@norwich.edu

Website: www.norwich.edu/cgrs

Lake Champlain Basin Program

NEIWPCC Code:	LS-2020-072
EPA	0346-004-001
Start Date:	7/15/2020
Close Date:	
Grant Amount:	$10,000.00
Non-federal Match:	$ 2,845.00
Total Amount:	**$12,845.00**

2020 Local Implementation Grant — in progress

Down by the River: Aquatic Ecosystem Exploration at Audubon Vermont

Project Summary

Audubon Vermont will expand and improve its aquatic education program through updated curriculum, teacher trainings, the creation of a self-guided climate walk for visitors to the Green Mountain Audubon Center, and free public education events devoted to the Huntington River and its watershed. As a result of these capacity building activities, early-childhood and afterschool educators will have tools to engage their students in aquatic learning and play. Additionally, the public will be more informed about climate change in the watershed, students will have hands-on experiences to support classroom learning, and the public will engage in recreation and species remove in the Lake Champlain Basin.

Outputs:

- 2 trainings for Early Childhood and Afterschool Educators, 3 hours/ea; 30 teachers; Teachers engage students in aquatic programs
- 500 brochures for self-guided climate change walk for visitors
- Create and host 12 hours of free programs with focus on recreation and natural history of Huntington River Watershed

Outcomes:

- improved teaching curriculum
- invasive species removed
- informed public inspired to take action on basin issues

Organization: Audubon Vermont

Contact Person: Debbie Archer

Mailing Address: 255 Sherman Hollow Road
Huntington VT 05462

Phone: 802-434-3068

E-mail: Debbie.archer@audubon.org

Website: vt.audubon.org

Engaging students in aquatic learning and play helps us guide the next generation of land stewards to understanding and action. Photo Credit: Audubon Vermont

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-045
EPA 0346-004-001
Start Date: 5/1/2020
Close Date:
Grant Amount: $10,000.00
Non-federal Match: $ 728.00
Total Amount: **$10,728.00**

2020 Local Implementation Grant — in progress

Engaging Students and Volunteers in Hands-on Stewardship Projects along the Lamoille River Paddlers Trail

Project Summary

Funding will be used to enhance public river access through hands-on stewardship projects along the Lamoille River. Outcomes will include the development of a new paddler campsite, enhancements to an existing campsite, the creation of a formal public river access at Boyden Farm, and the completion an ecological assessment and installation of ettiquette signage at the McCuin Island preserve.

Outputs:

- development of a new paddler campsite
- enhancements to an existing campsite
- creation of a formal public river access at Boyden Farm
- an ecological assessment and installation of ettiquette signage at the McCuin Island preserve

Outcomes:

- increase awareness of the recreational resources
- highlight simple, best management practices to reduce stormwater run-off.

Organization: VT River Conservancy

Contact Person: Noah Pollock

Mailing Address: 29 Main St Suite 4
Montpelier VT 05602

Phone: (802) 598-9056

E-mail: noah@vermontriverconservancy.org

Website: www.vermontriverconservancy.org

Lake Champlain Basin Program

NEIWPCC Code: L-2020-057
GLFC 0100-328-004
Start Date: 5/20/2020
Close Date:
Grant Amount: $ 7,359.00
Non-federal Match: $ 3,730.00
Total Amount: **$11,089.00**

2020 Local Implementation Grant — in progress

Engaging Students and Volunteers in Waterway Stewardship Projects along the Saranac, Lamoille, and Missisquoi Rivers

Project Summary

This is a student engagement and public access improvement project focused on the Saranac, Lamoille, and Missisquoi Rivers. NFCT will train a team of student interns in waterway stewardship techniques. In partnership with landowners and municipalities, the crew will spend four weeks working with community volunteers to complete priority projects that improve public access, protect water quality, and reduce the environmental impacts in the Lake Champlain Basin. In addition to cultivating stewardship skills for area college students, expected outcomes include improvements to the Separator Rapids Carry, the High Falls Campsite, and the McCasland Bridge Carry along the Saranac River, the development of the Old Talc Mill and Homes Meadows Angler Access areas on the Lamoille River, and the installation of stone steps in Richford's Davis Park on the Missisquoi River.

Outputs:

- improvements to the Separator Rapids Carry, the High Falls Campsite, and the McCasland Bridge Carry along the Saranac River
- development of the Old Talc Mill and Homes Meadows Angler Access areas on the Lamoille Rive
- installation of stone steps in Richford's Davis Park on the Missisquoi River.

Outcomes:

- improve public access
- protect water quality
- reduce the environmental impacts in the Lake Champlain Basin.

Organization: Northern Forest Canoe Trail

Contact Person: Noah Pollock

Mailing Address: PO Box 565
Waitsfield VT 05673

Phone: (802) 496-2285

E-mail: noah.pollock@gmail.com

Website: www.northernforestcanoetrail.org

Stewardship Interns constructing new access to Missisquoi River, Highgate, VT. June, 2019.

NEIWPCC Code:	L-2020-058
GLFC	0100-328-004
Start Date:	5/20/2020
Close Date:	
Grant Amount:	$ 9,936.00
Non-federal Match:	$ 2,765.00
Total Amount:	**$12,701.00**

2020 Local Implementation Grant — in progress

Essex County Youth Program

Project Summary

The Essex County SWCD Youth Program will offer opportunities to primary and secondary school students to participate in various experiential educational activities throughout the summer. Staff will expand on the current curriculum designed around relevant watershed topics using interactive lessons including games, conservation walks, and hands-on-learning. Other outputs and outcomes of our efforts will be direct outreach to youth program staff at annual summer orientation to raise awareness of environmental education opportunities and the finalization of a summer program schedule; the collection of evaluations and quantification of education deliverables; increased knowledge and environmental awareness among youth; and final public presentation and report.

Outputs:

- development of curriculum and schedules
- outreach to youth program staff at annual summer orientation

Outcomes:

- increased knowledge and environmental awareness among youth

Organization: Essex County SWCD

Contact Person: Daniel Berheide

Mailing Address: 8053 US Rte 9
Elizabethtown, NY 12932

Phone: 518-962-8225

E-mail: dberheide@westelcom.com

Website: essexcountyswcd.org

"Long Haul" hands-on demonstration during Summer Youth Program 2019

NEIWPCC Code:	LS-2020-054
EPA	0346-004-001
Start Date:	5//2020
Close Date:	
Grant Amount:	$ 9,601.00
Non-federal Match:	$ 1,996.00
Total Amount:	**$11,522.00**

2020 Local Implementation Grant — in progress

Exploring Edible Rain Gardens

Project Summary

The MRBA's Exploring Edible Rain Gardens project is focused on connecting with community members and schools to educate students about the importance of maintaining and improving water quality within the watershed. MRBA will use multiple methods to reach as many people as possible; rainfall simulator demonstrations at local classrooms and community events to teach about healthy soils and practices that can be used to improve water quality. Partner with Green Mountain Farm to School (GMFTS) to educate how water quality and our food are interrelated. Additionally, we plan to construct an Edible Rain Garden to show how this relationship is beneficial. The Edible Rain Garden will be a direct visual of this as an educational display, showing the relationship of water and perennial edible plant growth. Through these projects we will connect with our diverse watershed population, helping to communicate the role we all play in keeping our water healthy.

Outputs:

- demonstrate rainfall simulator in local classrooms and at community events to teach about healthy soils and practices that can be used to improve water quality
- host at least four educational programs for local schools and community groups
- install edible rain garden
- partner with Green Mountain Farm to School (GMFTS) and bring rainfall simulator to students in classroom settings to teach the importance of soil health to nutritional plant growth and to educate how water quality and our food are interrelated

Outcomes:

- engage watershed residents of all ages in activities that will connect them to their watershed, while communicating the importance of clean water and steps they can take to help achieve that goal

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: MRBA@pshift.com

Website: https://www.mrbavt.com/

ECO AmeriCorps member using our rainfall simulator to teach students about the impact of soil health on clean water. Photo credit: Lindsey Wight

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-031
GLFC	0100-328-004
Start Date:	3/26/2020
Close Date:	
Grant Amount:	$ 6,158.00
Non-federal Match:	$ 3,850.00
Total Amount:	**$10,008.00**

2019 Local Implementation Grant — concluded

First People's Lens on the Land and Lake

Project Summary

The First Peoples Lens on the Land & Lake project enabled Shelburne Farms educators to collaborate with local Abenaki Chief Don Stevens to enhance education programming and watershed awareness. The project was designed to engage the community in creating a sustainable future for the lake and surrounding landscape. It brought an authentic indigenous lens into key education efforts and build public awareness of the interconnectedness of the world as it relates to healthy ecosystems, clean water, and thriving communities.

Outputs:

- developed new curriculum or program outlines that include stories from Abenaki perspective either in person or through various technologies
- revised educational literature for school/public programming to include indigenous voice and perspective regarding Lake Champlain's creation and past, present, and future importance to native peoples

Outcomes:

- embedded messaging of indigenous past and current relationships with the land so that all visitors and program participants are exposed to a balanced history
- enriched the scientific perspective with a culturally-sustaining way of knowing about the Lake, its history and inhabitants, now and then

Organization: Shelburne Farms

Contact Person: Sue Dixon

Mailing Address: 1611 Harbor Road
Shelburne, VT 05482

Phone: 860-986-0322

E-mail: sdixon@shelburnefarms.org

Website: www.shelburnefarms.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-044
EPA	0995-004-001
Start Date:	4/1/2019
Close Date:	**9/30/2020**
Grant Amount:	$10,000.00
Non-federal Match:	$ 9,649.00
Total Amount:	**$19,649.00**

2020 Local Implementation Grant

in progress

Growing a Network of Clean Water Advocates

Project Summary

WNRCD will create and deliver a suite of training curricula to empower small groups like conservation commissions and non-profit organizations to identify clean water projects and implement solutions. A curriculum will be developed to present to five groups in tailored one-on-one meetings and will be delivered at one training at one large regional meeting. Training topics will include: Agriculture and Clean Water in VT, Clean Water Project Identification and Stormwater Solutions for Homeowners. Outputs for this project will include curricula, resource packets, photos from each training and a summary of participant evaluations. By training critical partners on clean water solutions we believe we can create the outcome of inspiring homeowners, farmers and towns to change their management practices and can help the state achieve phosphorus reduction goals set forth in Act 76 by bringing more players to the table.

Outputs:

- development of curriculum, resource packets, evaluation surveys
- 5 group trainings and a large regional meeting

Outcomes:

- increase the capacity of small conservation organizations in the Winooski District to identify clean water opportunities and implement projects
- inspiring homeowners, farmers and towns to change their management practices and can help the state achieve phosphorus reduction goals set forth in Act 76

Organization: Winooski NRCD

Contact Person: Kristen Balschunat

Mailing Address: 300 Interstate Corporate Center
Suite 200
Williston VT 05495

Phone: 802-288-8155 x104

E-mail: kristen@winooskinrcd.org

Website: www.winooskinrcd.org

DEC Basin Planner, Danielle Owczarski describes the basin planning process and how to use basin plans for water quality project identification to participants at the Water Quality Projects Training for Conservation Commissions. The event was hosted in May 2018 by Winooski NRCD and funded by a VT Watershed Grant. Photo credit: Kristen Balschunat, Winooski NRCD

Lake Champlain Basin Program

NEIWPCC Code: L-2020-043
GLFC 0100-328-004
Start Date: 4/17/2020
Close Date:
Grant Amount: $8,292.00
Non-federal Match:
Total Amount: **$8,292.00**

2020 Local Implementation Grant

in progress

Guided River Tours: Interpretive Outdoor Trips to Connect Communities and Protect the River

Project Summary

The Ausable River Association (AsRA), Guided River Tour Program will build on the 2019 River Tours designed with outcomes of connecting community residents and visitors to the river, and its work, and also educate a variety of issues relevant to the Lake Champlain Basin. The outcome of the Guided River Tours is to engage local citizens in outdoor recreational activities while also inspiring participants to be active stewards of their local environment. The 2020 Guided River Tours will feature three themed hikes, an on-the-water classroom by boat trip, an interpretive canoe and kayak trip, a moth and bat research evening workshop, a family-friendly snorkeling trip, and an interpretive Riverwalking experience all of which will include hands-on demonstrations of field survey methods. This project will also include an update to the existing interpretive signage that displays the trail brochure, revised through a 2018 grant, which complements the interpretive paddling trips and other outdoor experiences at Lake Everest in Wilmington

Outputs:

- 3 themed hikes, an on-the-water classroom by boat trip, an interpretive canoe and kayak trip, a moth and bat research evening workshop, a family-friendly snorkeling trip, and an interpretive Riverwalking experience all of which will include hands-on demonstrations of field survey methods.
- update to the existing interpretive signage

Outcomes:

- connecting community residents and visitors to the river
- engage local citizens in outdoor recreational activities while also inspiring participants to be active stewards of their local environment.

Organization: Ausable River Association

Contact Person: Tyler Merriam

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518.637.6859

Email: tyler@ausableriver.org

Website: www.ausableriver.org

River Steward demonstrating water quality monitoring methods on Lake Everest, West Branch Ausable River, Wilmington, NY, during 2019 Guided River Tours (photo credit: Carrianne Pershyn).

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-034
EPA 0346-004-001
Start Date: 4/7/2020
Close Date:
Grant Amount: $10,000.00
Non-federal Match: $ 4,570.00
Total Amount: **$14,570.00**

2019 Local Implementation Grant — concluded

Immersive Maritime Exploration Program 2019

Project Summary

Students engaged with multiple mediums, including wood, canvas, rope, and iron, using hand tools to viscerally learn lessons about this foundational period in our nation's history. Through immersive programs, students explored the maritime trades through Fort Ticonderoga's distinctive minds-on, hands-on approach. They explored topics such as math, science, geography, and history while developing their critical thinking skills.

Outputs:

- used acquired materials to built components for hands-on activities
- delivered interactive living history programing focused on maritime trades to students and scouts during 2019 season
- created a reproduction bateau

Outcomes:

- develop skills in historical trades
- develop a better understanding of processes of historical maritime trades
- experiential applications of math and science
- improved critical thinking

Organization: The Fort Ticonderoga Association
Contact Person: Martha Strum
Mailing Address: PO Box 390, Ticonderoga, NY 12883
Phone: 518-585-2821
E-mail: mstrum@fort-ticonderoga.org
Website: www.FortTiconderoga.org

Lake Champlain Basin Program

NEIWPCC Code: L-2019-054
GLFC 0100-323-004
Start Date: 4/15/2019
Close Date: **5/6/2020**
Grant Amount: $ 6,500.00
Non-federal Match: $47,500.00
Total Amount: **$54,000.00**

2020 Local Implementation Grant — in progress

Immersive Maritime Exploration Program 2020

Project Summary

Fort Ticonderoga proposes to expand on its highly successful maritime programs for youth and scout groups in 2021. Fort Ticonderoga's unique and immersive educational approach will teach larger concepts in Ticonderoga's naval history on the Lake Champlain corridor and its role in the founding of our nation. Through immersive programs, students will explore the maritime trades through Fort Ticonderoga's distinctive minds-on, hands-on approach. They will explore topics such as math, science, geography, and history while developing their critical thinking skills.

Outputs:

- two new maritime interpreters
- train staff and construct period clothing
- offer and deliver special living history maritime student and scout programs

Outcomes:

- promote an appreciation of natural and cultural resources, and the capacity to implement actions that will result in sound stewardship of these resources while maintaining strong local economies
- increase and improve public access opportunities to the waterbodies of the Basin and interconnected waterways of the Champlain Valley for diverse recreational activities

Organization: The Fort Ticonderoga Association
Contact Person: Martha Strum
Mailing Address: PO Box 390, Ticonderoga, NY 12883
Phone: 518-585-2821
E-mail: mstrum@fort-ticonderoga.org
Website: www.FortTiconderoga.org

Lake Champlain Basin Program

NEIWPCC Code: L-2020-059
GLFC 0100-328-004
Start Date: 5/7/2020
Close Date:
Grant Amount: $ 3,550.00
Non-federal Match: $31,190.00
Total Amount: **$34,740.00**

2019 Local Implementation Grant — in progress

Invasive Plant and Riparian Restoration of the Intervale Service Learning Curricula

Project Summary

This project supports a collaborative effort to develop service learning curriculum that focuses on invasive plant management and riparian forest restoration, to meet goals of conservation and natural resource management, and increase education and outreach to the community.

Outputs:

- Develop and implement hands-on learning projects for three local schools and volunteer groups

Outcomes:

- Increase understanding of invasive plant identification and impact on riparian forest habitat and water quality
- Removal of targeted invasive plant species on lands within the Intervale
- Restoration of native tree and shrub species in the areas of invasive plant removal

Organization: Winooski Valley Park District

Contact Person: Lauren Chicote

Mailing Address: 1 Ethan Allen Homestead
Burlington, VT 05408

Phone: 802-863-5744

E-mail: info@wvpd.org

Website: www.wvpd.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2019--060
EPA 0995-004-001
Start Date: 4/15/2019
Close Date:
Grant Amount: $ 9,989.00
Non-federal Match: $ 3,780.00
Total Amount: $13,769.00

2019 Local Implementation Grant — concluded

Lake Champlain Headwaters Environmental Issues Educator

Project Summary

Funding for a half-time educator position based at Paul Smith's College and deployed in the upper reaches of the Saranac River watershed and the New York shoreline of the Lake Champlain Basin. The educator conducted outreach at public events and institutions in the headwaters of the Lake Champlain Basin in the Saranac Lake and Lake Placid region.

Outputs:

- delivered 27education and outreach programs at community events, Water Shield workshops and aquatic invasive species spread prevention trainings
- reached approximated 780 people

Outcomes:

- increase public awareness and engagement with Lake Champlain Basin environmental issues, with an emphasis on water quality and aquatic invasive species spread prevention
- new audiences

Organization: Paul Smith's Watershed Stewardship Program

Contact Person: Zoe Smith

Mailing Address: PO Box 265
Paul Smiths, NY 12970

Phone: 518-327-6276

E-mail: zsmith1@paulsmiths.edu

Website: www.adkwatershed.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-043
EPA 0995-004-001
Start Date: 4/1/2019
Close Date: **9/30/2020**
Grant Amount: $8,000.00
Non-federal Match:
Total Amount: **$8,000.00**

2020 Local Implementation Grant — in progress

Lake Champlain Headwaters Summer Education Program

Project Summary

Paul Smith's College Adirondack Watershed Institute (PSC AWI) proposes to implement the "Lake Champlain Headwaters Summer Education Program" to educate basin residents and visitors about watershed pollution and aquatic invasive species primarily in the Saranac River watershed. The proposal identifies the following expected outputs: 12-16 education programs including hosting hands-on floating classrooms (Water Shield Workshop) for the public; tailored presentations to lake groups; training for lake associations and municipality AIS spread prevention stewards; and outreach at farmers markets and other local events. There will be a special focus on events during Invasive Species Awareness Week.

Outputs:

- 12-16 education programs including hosting hands-on floating classrooms (Water Shield Workshop) for the public
- tailored presentations to lake groups
- training for lake associations and municipality AIS spread prevention stewards
- outreach at farmers markets and other local events.

Outcomes:

- increased public awareness and engagement with Lake Champlain Basin environmental issues, primarily water quality and aquatic invasive species spread prevention

Organization: Paul Smith's College Adirondack Watershed Institute

Contact Person: Zoe Smith

Mailing Address: PO Box 265
Paul Smiths, NY 12970

Phone: 518-327-6276

E-mail: zsmith1@paulsmiths.edu

Website: www.adkwatershed.org

AWI Water Shield Workshop is a floating educational vessel that accommodates 8 students and provides hands on teaching opportunities for students to learn about water protection.

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-066
GLFC	0100-328-004
Start Date:	6/9/2020
Close Date:	
Grant Amount:	$ 9,890.00
Non-federal Match:	$ 3,056.00
Total Amount:	**$12,946.00**

2019 Local Implementation Grant — concluded

Lake George Floating Classroom

Project Summary

The hands-on Floating Classroom program is central to the mission of the Lake George Association, and a core element of its educational program. The Floating Classroom program takes place aboard the *Rosalia Anna Ashby,* a 40' Corinthian Catamaran custom-built for the program and is for all ages to learn about the Lake George watershed and the quality of the lake's water. It provides a real-world learning experience on environmental topics. Participants investigate different aspects of the lake's ecosystem through sampling techniques and learn how to protect and preserve this living water body. The project continues to reach new audiences and adapt the curriculum to educate Lake users about watersheds and water quality. Continuing the Floating Classroom program for Lake users will allow LGA to continue to be effective at raising awareness about water quality issues and affecting behavioral change that will help protect the Lake Champlain Basin.

Outputs:

- 2,213 participants (491 adults, 1,722 children) on 92 different Floating Classroom Programs investigated different aspects of the lake's ecosystem through sampling techniques and learn how to protect and conserve this living waterbody Spring Floating Classroom field trips
- summer public programs
- fall Floating Classroom field trips

Outcomes:

- raise awareness about water quality issues
- affect behavioral changes that will help conserve the Lake Champlain Basin
- create stewards for present and future generations

Organization: Lake George Association

Contact Person: Kristen Wilde

Mailing Address: PO Box 408, 2392 State Route 9N
Lake George, NY 12845

Phone: 518-668-3558

E-mail: kwilde@lakegeorgeassociation.org

Website: www.lakegeorgeassociation.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-029
EPA	0995-004-001
Start Date:	5/6/2019
Close Date:	**12/24/2019**
Grant Amount:	$10,000.00
Non-federal Match:	$14,744.00
Total Amount:	**$24,744.00**

2020 Local Implementation Grant — in progress

Lamoille Watershed Investigation Series

Project Summary

The Lamoille Watershed Investigation Series will raise awareness, understanding and appreciation of Lake Champlain Basin resources within the Lamoille Watershed through a place-based, hands-on watershed education series at four schools which will culminate in students creating four illustrated maps of the Lamoille Watershed to display at their respective schools.

Outputs:

- implement watershed lessons and field investigations with 4 partner classrooms.
- 4 illustrated watershed maps

Outcomes:

Organization: Lamoille County NRCD

Contact Person: Stacey Waterman

Mailing Address: 109 Professional Drive, Suite 2
Morrisville, VT 05661

Phone: (802) 888-9218 ext. 3007

E-mail: stacey.waterman@vt.nacdnet.net

Website: www.lcnrcd.com

Wolcott Elementary students participate in a watershed field survey in 2018

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-036
GLFC	0100-328-004
Start Date:	4/10/2020
Close Date:	
Grant Amount:	$ 6,880.00
Non-federal Match:	$ 3,120.00
Total Amount:	**$10,000.00**

2019 Local Implementation Grant — concluded

Lewis Creek Association Ahead of the Storm Program Education

Project Summary

This project provided funding for a stormwater consultant to teach students and teaching staff from several schools about the process for developing stormwater treatment areas, and explain the water pollution and stormwater problem areas on school campuses. This expert also trained the Lewis Creek Association Board of Directors and select community members, thereby increasing capacity to do outreach to the public and local schools. From these sessions, a teaching curricula was created. In addition, a packet of education and outreach materials was created; it is publically available and was used for a press release, social media posts, and a community forum.

Outputs:

- professionally-developed curricula for use in student and LCA staff training
- stormwater areas of concern on school campuses identified
- stormwater informational packet for educators and general public developed
- education and outreach materials for press releases, social media and community forums created
- students, community members and teachers educated on stormwater topics

Outcomes:

- an engaged and educated student body with regard to school-specific stormwater education
- better informed community with access to well documented resources
- informed teaching staff who will continue reaching student using accessible resources

Organization: Lewis Creek Association

Contact Person: Katherine Kelly

Mailing Address: PO Box 313, 442 Lewis Creek Road
Charlotte, VT 05445

Phone: 802-488-5203

E-mail: lewiscreekorg@gmail.com

Website: www.lewiscreek.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-032
EPA	0995-004-001
Start Date:	4/1/2019
Close Date:	**2/12/2020**
Grant Amount:	$9,877.00
Non-federal Match:	
Total Amount:	**$9,877.00**

2019 Local Implementation Grant — in progress

242 Main Documentary Film, Public Archive and Interactive Exhibit

Project Summary

The project will produce a documentary video about the historic significance and social meaning of this youth-led teen center, the longest-running all-ages punk rock venue in the country; develop an interactive museum display and public archive on the subject of 242 Main. Sixty-five interviews have been recorded and transcribed and hundreds of photographs and posters have been collected.

Outputs:

- Produce a film documenting the historic significance of 242 Main
- Develop a hands-on interactive museum video exhibit
- Create a publicly accessible, online archive of full interview footage, posters and photographic artifacts to be a resource to municipalities, researchers, and other youth programs.

Outcomes:

- Raise awareness of the longest-running all-ages punk rock venue in the country
- Provide a historic record of significant contribution to Lake Champlain heritage by a traditionally marginalized demographic population
- Develop public insight that helps create equitable multigenerational empathy for informing future policy and programming decisions.

Organization: Big Heavy World

Contact Person: James Lockridge

Mailing Address: P.O. Box 428
Burlington, VT 05402-0428

Phone: (802) 865-1140

E-mail: jim@bigheavyworld.com

Website: www.bigheavyworld.com

Lake Champlain Basin Program

NEIWPCC Code: L-2019-024
GLFC 0100-323-004
Start Date: 3/11/2019
Close Date:
Grant Amount: $ 7,280.00
Non-federal Match: $ 5,242.00
Total Amount: **$12,522.00**

2020 Local Implementation Grant — in progress

Molly of Denali PBS Kids Library Play Date Kit

Project Summary

MLPBS will produce and distribute a *Molly of Denali* PBS Kids Play Date event kit for regional libraries focused on ecology, environmental stewardship and community values. Educational materials will be developed in consultation with local experts and partner organizations. Each of the five kits created will include indoor/outdoor educational activities and materials, and free books for all participants. As families engage in quality, hands-on activity focused time together using the materials provided, the youngest members of our communities are exposed to the cultural and ecological value of the lake and basin, building a strong connection to the natural world and scientifically-driven discovery.

Outputs:

- develop curriculum elements
- activities and crafts for *Molly of Denali* Library Play Date Kits developed and prototyped
- *5 Molly of Denali* Library Play Date Kits built

Outcomes:

- pride in local communities and appreciation of natural and cultural resources will be encouraged
- knowledge of how to implement certain stewardship practices
- sense of personal responsibility to effect change

Organization: Mountain Lake PBS

Contact Person: Logan Brody

Mailing Address: 1 Sesame ST
Plattsburgh, NY 12901

Phone: 518-324-0102

E-mail: lbrody@mlpbs.org

Website: mountainlake.org

Lake Champlain Basin Program

NEIWPCC Code: L-2020-071
GLFC 0100-328-004
Start Date: 7/15/2020
Close Date:
Grant Amount: $ 5,000.00
Non-federal Match: $16,895.00
Total Amount: **$21,895.00**

2020 Local Implementation Grant — in progress

Montpelier Green Stormwater Infrastructure Educational Walking Tour

Project Summary

This project will develop a proposed educational walking tour of Green Stormwater Infrastructure (GSI) practices in Montpelier, and place interpretive signage at key sites. The tour proposal was developed by UVM Sea Grant professor Kris Stepenuck and a student, Colin Brown. It will begin near the LCBP-funded Rain Garden and Bioretention Practice at VSECU, and continue along Montpelier's multi-use path, called the Siboinebi ("river water" in the Abenaki language) Path, which runs along part of the Winooski River. Signs will explain GSI techniques, identify key GSI practices, and educate visitors about the significance of the City's rivers and the need for action to curb contamination. The anticipated outcome is a more educated community inspired to their own acts of stewardship to improve the health of our waterways. MCC expects to add signs along the tour route in the future.

Outputs:

- develop educational walking tour of Green Stormwater Infrastructure (GSI) practice
- print and web brochure
- installation of 3 interpretive signs

Outcomes:

- more educated community inspired to their own acts of stewardship to improve the health of our waterways

Organization: Montpelier Conservation Commission

Contact Person: Page Guertin

Mailing Address: 39 Main St.
Montpelier, VT 05602

Phone: 802-461-7929

E-mail: mcc@montpelier-vt.org

Website: https://www.montpelier-vt.org/398/Conservation-Commission

The first sign will be installed at VSECU Rain Garden that was constructed last summer and will inform people walking on the Siboinebi Path about the significance, functions and capabilities of Green Stormwater Infrastructure.

Lake Champlain Basin Program

NEIWPCC Code:	L-2020-044
GLFC	0100-328-004
Start Date:	4/23/2020
Close Date:	
Grant Amount:	$8,480.00
Non-federal Match:	$1,000.00
Total Amount:	**$9,480.00**

2019 Local Implementation Grant — concluded

Moving North: LCMM Professional Development Comes to North Lake

Project Summary

This project brought educational and professional development courses to the St. Albans area for the summer of 2019. The target audience was educators from elementary to high school and collegiate level, as well as staff members of Lake Champlain-oriented non-profit organizations in the North Lake area.

Outputs:

- Lake Champlain Maritime Museum educational staff developed lesson plans, testimonials, feedback forms, informal utilization plans, photos.

Outcomes:

- increased awareness, appreciation, engagement, and stewardship of Lake Champlain.
- enhanced educational experiences for students and other learners in the area.

Organization: St Albans Historical Museum (Bellows Free Academy)

Contact Person: Alex Lehning

Mailing Address: PO Box 722, 9 Church Street
St. Albans, VT 05478

Phone: 802-527-7933

E-mail: alex@stamuseum.org

Website: https://stamuseum.org/

Teachers at Hungerford Brook

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-027
EPA	0995-004-001
Start Date:	4/1/2019
Close Date:	**1/17/2020**
Grant Amount:	$ 9,944.00
Non-federal Match:	$ 750.00
Total Amount:	**$10,694.00**

2020 Local Implementation Grant — in progress

North County Stormwater Tradeshow and Conference Educational Outreach Event

Project Summary

For the past 15 years, CWICNY has organized the North Country Stormwater Tradeshow and Conference, a day-long educational event dedicated to promoting watershed protection and stormwater best practices in the Lake Champlain Basin. This event attracts between 100 to 120 engineers, landscape architects, municipal highway employees and stormwater professionals for five, one to two-hour sessions based on innovated stormwater techniques, new state and federal level programs and case studies from around the watershed. CWICNY strives to continue to create a conference that is innovative, interesting and up-to-date and will utilize this funding to expand the existing conference in order to attract a broader audience of attendees and to continue education and outreach to individuals, professionals, and municipalities throughout the watershed.

Outputs:

- develop session content/schedule
- create educational handouts and conference packets
- secure continuing education credits
- hold annual conference

Outcomes:

- promotion of watershed protection and stormwater best practices in the Lake Champlain Basin

Organization: CWICNY

Contact Person: Allison Hargrave-Gaddy

Mailing Address: PO Box 765
Lake George, New York 12845

Phone: 518-668-5773

E-mail: Allison.gaddy@lclgrpb.org

Website: www.cwicny.org

Ethan Gaddy and Mike Bellack from the Chazen Companies present at the 2019 Tradeshow

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-068
EPA 0346-004-001
Start Date: 6/9/2020
Close Date:
Grant Amount: $8,048.00
Non-federal Match: $1,025.00
Total Amount: **$9,073.00**

2019 Local Implementation Grant — concluded

River Tours: Interpretive Paddling and Hiking to Connect Communities and Protect the River

Project Summary

AsRA's River Tour Program is an annual series of educational events designed to connect community residents and visitors to the Ausable River and educate them on a variety of issues relevant to the Lake Champlain Basin. Through this program local citizens participate in outdoor recreational activities with the goal of inspiring them to be active stewards of their local environment. The 2019 River Tours included three interpretive paddling trips, two themed interpretive hikes, and one field trip to AsRA's program sites with hands-on demonstrations of field survey methods. An updated self-guided paddling nature trail brochure to complement the interpretive paddling trips was also created.

Outputs:

- 3 free-of-charge and open to the public interpretive paddling trips on the West Branch of the Ausable River at Lake Everest in Wilmington, NY.
- 2 themed free-of-charge and open to the pubic interpretive hikes in the Ausable River Watershed.
- 1 river tour field trip of AsRA's program sites, with hands-on demonstrations of geomorphology field methods
- updated self-guided paddling nature trail brochure of Lake Everest, NY

Outcomes:

- engagement of local citizens in outdoor recreational activities
- promotion of recreational opportunities in the Ausable watershed
- increased public awareness of water quality issues affecting the Ausable watershed.

Organization: Ausable River Association

Contact Person: Carrianne Pershyn

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518.637.6859

E-mail: cpershyn@ausableriver.org

Website: www.ausableriver.org

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-033
EPA 0995-004-001
Start Date: 4/12/2019
Close Date: **11/26/2019**
Grant Amount: $ 9,735.00
Non-federal Match: $ 3,554.00
Total Amount: **$13,289.00**

2019 Local Implementation Grant — concluded

Saranac and Missisquoi River Waterway Stewardship, Community Engagement, and Public Access Improvement Project

Project Summary

This student engagement, volunteer training, and public access improvement project focused on the Saranac and Missisquoi Rivers. The primary objective is to train a team of interns in waterway stewardship techniques through the completion of three public access development and water quality projection projects: Saranac River's MacCasland Bridge Access, Missisquoi River Samsonville Ledges Portage, and Missisquoi River Lowell Access. Students were exposed to water quality and conservation issues in the region through interactions and workshops led by project partners. NFCT also recruited and trained three community volunteers to help monitor and maintain access sites and primitive campsites, previously developed with LCBP support, along the two rivers.

Outputs:

- stewardship training plan for NFCT interns focused on waterway stewardship skills including paddling, working with volunteers, leadership, and carpentry
- installation of a set of cribbed timber steps at the McCasland Bridge Access on the Saranac River, NY
- installation of a improved canoe carry-around at Separator Rapids on the Saranac River, NY
- construction of a canoe access area for the Missisquoi River in Lowell, VT.
- maintenance work on Missisquoi River access points in East Berkshire and Richford, VT
- recruitment of three new volunteer stewards that assisted with site monitoring and maintenance along the Missisquoi River
- two paddle training sessions led by NFCT staff that discussed waterway stewardship in the Adirondacks
- one water quality and community development workshop led by the Wild and Scenic program coordinator

Organization: Nothern Forest Canoe Trail
Contact Person: Noah Pollock
Mailing Address: PO Box 565, Waitsfield VT 05673
Phone: 802-496-2298
E-mail: noah@northernforestcanoetrail.org
Website: www.northernforestcanoetrail.org

Outcomes:

- increase in NFCT's leadership role in stewarding the waters of the Lake Champlain Basin
- improved canoe access points on the Missisquoi and Saranac Rivers
- increased canoe-access site monitoring and maintenance along the Missisquoi and Saranac Rivers

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-046
EPA	0995-004-001
Start Date:	4/22/2019
Close Date:	**11/5/2019**
Grant Amount:	$ 7,782.00
Non-federal Match:	$ 2,970.00
Total Amount:	**$10,752.00**

2019 Local Implementation Grant — in progress

Saranac River Trail Phase 2 Explorations

Project Summary

Develop educational programming for the portions of the trail surrounding the Durkee Street and Saranac Street bridges in Plattsburgh, NY to complement the new pedestrian access in 2019. This project will include public outreach and marketing, advertising for our annual Friends of the Saranac River Trail treks, in-school presentations, and community presentations.

Outputs:

- develop educational programs based on specific trail sections
- develop and implement public outreach campaign
- develop promotional materials for Friends of the Saranac River Trail Treks

Outcomes:

- community awareness of the Saranac River Trail
- greater community use of the resource
- improved student (K-12) and community knowledge of the significance of the Saranac River

Organization: Friends of Saranac River Trail
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Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-015
EPA	0995-004-001
Start Date:	3/1/2019
Close Date:	
Grant Amount:	$2,901.00
Non-federal Match:	$ 500.00
Total Amount:	**$3,401.00**

2019 Local Implementation Grant — concluded

Soil Health on Market Farms

Project Summary

The Warren County Soil and Water Conservation District partnered with SUNY Adirondack's Agricultural School to host a series of soil health on market farm programs. The District worked directly with professors and students in the Agricultural School to implement the program. Together, they developed a demonstration market vegetable farm plot at the college and purchased the tools and supplies necessary to maintain the plot. Best management practices were utilized on the demonstration plot to promote conservation practices. In addition, a series of programs marketed to local farmers were hosted at the college that discussed the benefits of market farming, best management practices (BMPs), cover crops, no-till and how to effectively and efficiently use these techniques. The long-term goal of this program is to encourage producers and future market farmers who farm in the young, shallow, rocky and sandy soils native to the Adirondacks in Warren County, NY to implement soil health practices for conservation and sustainability as well as increased production and decreased costs.

Outputs:

- creation of a market farm demonstration plot at the SUNY Adirondack Agricultural School
- four soil health training workshops open to the public
- one six-day soil health field course for the Agroecology students
- press release about the program sent out with the promotion and outreach for the "Soil Health on Market Farms" workshop.
- purchase of vegetable farm tools and supplies needed to build and manage the market farm demonstration plot with soil health and conservation practices

Outcomes:

- producers and future market farmers in Warren County, NY are encouraged to implement soil health practices for conservation and sustainability

Organization: Warren County SWCD

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- increase in knowledge about the benefits soil health techniques have to preserve and enhance native Adirondack soils for cultivation.
- expansion of the market farm at SUNY Adirondack's Agricultural School which provides produce to the college dining hall and restaurant.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-014
EPA	0995-004-001
Start Date:	2/25/2019
Close Date:	**12/9/2019**
Grant Amount:	$8,428.00
Non-federal Match:	$1,200.00
Total Amount:	**$9,628.00**

2019 Local Implementation Grant — concluded

South Champlain Historical Ecology Project (SCHEP)

Project Summary

The South Champlain Historical Ecology Project engaged student interns and a consultant from the Elnu Abenaki to help carry out 2019 education and outreach activities in local schools and the Galick archaeological field research site in West Haven, VT.

Outputs:

- 95 students from area schools received a presentation about archaeology and SCHEP's work
- 54 students visited the Galick Site and participated in field investigations
- 17 new volunteers participated in SCHEP excavations for the first time
- one Elnu Abenaki educator hired to participate in educational programming.
- two college students, one from Castleton University, and one from Green Mountain College, were hired and trained to assist with day-to-day operations of the field project and in particular, with teaching volunteers the basic skills needed to assist with screening and identifying artifacts

Outcomes:

- increase in informed knowledge of the unique ability of collected prehistoric artifacts to illuminate Vermont's prehistory
- enhanced local awareness and knowledge of cultural heritage resources in the south Lake Champlain area
- increase in knowledge in the work of archaeologists
- increased knowledge of Vermont's prehistoric and contemporary native communities

Organization: SCHEP - Castleton University

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Lake Champlain Basin Program

NEIWPCC Code:	L-2019-023
GLFC	0100-323-004
Start Date:	3/11/2019
Close Date:	**6/9/2020**
Grant Amount:	$10,000.00
Non-federal Match:	
Total Amount:	**$10,000.00**

2020 Local Implementation Grant — in progress

Valuing the work of The Federation of Vermont Lakes and Ponds

Project Summary

FOVLAP brings together lake associations from across the Lake Champlain Basin and throughout the state to share ideas and common issues and deliver current information and solutions via a spring and fall water quality newsletter, and an annual Lake Seminar.

Funding will support: 2 semi-annual newsletters, typically 8-12 pages in length, including 2-4 articles relevant to water quality issues across the state per issue. The funding will also support the 2020 Annual Lake Seminar, a full day of workshops and seminars informing the public on the state of Vermont's lakes and what they can do to protect and improve water quality from their home and lakeside properties.

Outputs:

- coordination, creation, print, and distribution of 2 semi-annual newsletters which contain 2-4 articles relevant to water quality issues across the state
- support for the 2020 Annual Lake Seminar, a full day of workshops and seminars informing the public on the state of Vermont's lakes and what they can do to protect and improve water quality from their home and lakeside properties.

Outcomes:

- increased public knowledge of lakeshore topics including water quality, naturalizing shorelands, managing or preventing the spread of invasive species, and what private landowners need to know or could be doing to help.
- individual lake associations and landowners have access to the tools and support they need to make positive changes for their ecosystems.

Organization: Federation of VT Lakes and Ponds
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Lake Champlain Basin Program

NEIWPCC Code: LS-2020-051
EPA 0346-004-001
Start Date: 4/23/2020
Close Date:
Grant Amount: $ 4,524.00
Non-federal Match: $37,400.00
Total Amount: **$41,924.00**

2019 Local Implementation Grant — in progress

Vermont Water-wise Communities Initiative (VWCI)

Project Summary

The Vermont Water-wise Communities Initiative (VWCI) will help towns and cities educate citizens on how to keep Vermont's natural waters clean by reducing their contribution of contaminants to wastewater and storm water in municipal systems and in private septic systems.

Outputs:

- Develop and provide to all Vermont cities and towns four no-cost ready-to-print PDF files for brochures, to be printed and mailed with quarterly utility or tax bills
- Design four web pages devoted to the same information and accompanying press releases, editorials, and other media communications, including social media to reinforce the message.

Outcomes:

- Reduce costs due to fewer pipe/pump blockages or other equipment malfunctions
- reduce pollution of wastewater and storm water facility inflow and thus cleaner facility outflows
- Reduce damage to aquatic ecosystems, including Lake Champlain
- Create an informed and empowered citizenry able to improve Vermont's natural waters regardless of limitations of public infrastructure, budgets, or policies
- changes in the contaminant disposal habits of Vermonters

Organization: VT League of Cities and Towns
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Lake Champlain Basin Program

NEIWPCC Code: LS-2019-061
EPA 0995-004-001
Start Date: 4/18/2019
Close Date:
Grant Amount: $ 9,860.00
Non-federal Match: $ 3,066.00
Total Amount: **$12,926.00**

2020 Local Implementation Grant — in progress

Watershed Bound! Creating Watershed Education Opportunities for Upward Bound Teachers and Students in the Lake Champlain Basin

Project Summary

This project will provide K-12 teachers with resources and training to aid in the successful integration of interdisciplinary watershed science curricula, while also providing an entry point for potential first-generation college students to the field of watershed science, and show them the opportunities that exist for them in that field. Outputs will include two workshops for K-12 teachers, at least 10 Upward Bound summer courses that incorporate elements of watershed science, the creation of at least 10 lessons plans, at least 10 student blog posts, at least one peer reviewed manuscript, three quarterly progress reports, and one final report.

Outputs:

- two workshops that each serve at least 5 teachers
- host one educational trip aboard the Melosira for at least 10 teachers
- 10 Upward Bound summer courses will include elements of watershed science and research
- 10 high school level lesson plans that focus on water science
- 10 blog posts featured on the Lake Champlain Sea Grant website

Outcomes:

- K-12 educators will have the training and tools they need to integrate watershed science content into any course they teach
- Upward Bound students will become interested in studying, and ultimately working in, the field of watershed science
- Upward Bound students will report greater pro-environmental intentions related to Lake Champlain after they participate in this project.

Organization: SUNY Plattsburgh

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Watershed Alliance's teacher training trip aboard the* Melosira. *Photo Credit: Nate Trachte at the Watershed Alliance

Lake Champlain Basin Program

NEIWPCC Code: LS-2020-070
EPA 0346-004-001
Start Date: 8/13/2020
Close Date:
Grant Amount: $ 9,977.00
Non-federal Match: $ 2,630.00
Total Amount: **$12,607.00**

2019 Local Implementation Grant — in progress

What's in the Water?

Project Summary

This project will get Moriah Central School 7th and 10th grade science classes in the field through the Cornell University's Citizen Science Fish Tracker Program. Students will learn to observe and record data about their terrestrial and aquatic surroundings in an educational setting. This grant funds the purchase of supplies needed to participate in the Fish Tracker Program and also the associated travel expenses.

Outputs:

- purchase supplies needed for participation in the Citizen Science Fish Tracker Program
- travel expenses

Outcomes:

- understanding the process of observing, collecting and recording environmental data
- ability to apply scientific method to environmental field work

Organization: Moriah Central School

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Website:

Lake Champlain Basin Program

NEIWPCC Code: LS-2019-066
EPA 0995-004-001
Start Date: 4/20/2019
Close Date:
Grant Amount: $4,800.00
Non-federal Match: $1,000.00
Total Amount: **$5,800.00**

2018 Externally Managed Project — in progress

Bioengineering Training and Demonstration Projects on Priority Shoreland Sites, Lake Wise Program

Project Summary

Bioengineering practices are new to Vermont, yet well proven ecological techniques in and around the Great Lakes for shoreland restoration. Practicing shoreland restoration through bioengineering implements green stormwater infrastructure and low impact designs to stabilize and protect shorelands, while filtering stormwater to protect water quality. This includes project installation trainings to teach contractors, engineers, and designers how to construct these environmentally friendly approaches to prevent erosion and manage stormwater runoff. The Bioengineering Manual will assist contractors who receive training in bioengineering methods with their erosion control and bank stability work along shorelands.

Outputs:

- Twenty contractors with the knowledge and skills needed to use bioengineering techniques to restore shorelands.
- Ten shoreland assessments at sites that are hydrologically connected to Lake Champlain.
- Two demonstration projects installed on shoreland sites that are hydrologically connected to Lake Champlain.
- Development of a Bioengineering Manual.

Outcomes:

- Twenty contractors capable of using bioengineering techniques on additional shoreland properties, which would further reduce nutrient loading and improve shoreland habitat.
- Two shoreland sites restored, reducing nutrient loading in the Lake Champlain Basin and improving shoreland habitat.

Organization: VT DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY18)
Start Date: 10/1/2018
Close Date:
Grant Amount: **$60,000.00**

2019 Externally Managed Project — in progress

Bioengineering and Shoreland Best Management Practices to Restore Living Shorelands and Protect Water Quality

Project Summary

The Lake Wise Program develops and coordinates science-based, lake friendly, shoreland methods for protecting water quality and habitat. The Lake Wise Program leads and partners with hundreds of contractors, shoreland owners, Natural Resource Conservation District staff, Regional Planning Commissions, and watershed groups to teach and promote these practices for shoreland protection and restoration. By 2019, several first time ever Bioengineering Projects and shoreland Best Management Practices will have been installed along Vermont shorelands. These practices, ecological techniques to protect water quality and wildlife habitat, need monitoring and maintenance, and continued replication to spread awareness and understanding of their benefits. This project aims to monitor and maintain existing installed bioengineering practices, while continuing to offer classroom as well as field opportunities to train and teach contractors, engineers, and landscape designers how to construct and install these ecological approaches to prevent erosion and manage stormwater runoff. In order to publicize and spread the word about the bioengineering projects to restore living shorelands in Vermont, there will also be a statewide map created, highlighting the location of projects, photos, and the design concepts.

Outputs:

- two classroom Natural Shoreland Erosion Control Certification Trainings
- one Field Erosion Control Training
- Vermont's first Living Shoreland Webinar Series on restoring shorelands to protect water quality
- twenty contractors trained
- Ten shoreland sites in the Lake Champlain basin in Vermont assessed
- Ten project sites in the Lake Champlain basin in Vermont identified
- One demonstration project sites in the Lake Champlain basin in Vermont installed
- Development of Living Shoreland Restoration Projects Map Tour Pamphlet

Organization: VT DEC

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AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY19)
Start Date: 11/1/2019
Close Date:
Grant Amount: $62,000.00

2019 Externally Managed Project — in progress

Enhanced Implementation of Vermont Environmental Stewardship Program (VESP)

Project Summary

The Vermont Environmental Stewardship Program (VESP) is a voluntary program that encourages and supports local agricultural producers to achieve environmental and agricultural excellence.
VESP applicants are evaluated by a team of conservation planners and technical service providers to ascertain current land-use practices. The resulting data is used to set customized environmental goals for the farm and to enact a long-range plan encompassing a full range of regenerative farming practices.
This project supports the comparison of stewardship evaluation tools and models and the development and integration of water quality and ecosystem service valuation criteria and proposals for incentives. Acreage from the pilot farms that has been assessed through USDA's Resource Stewardship Evaluation Tool (REST) will be compared with USDA's Agricultural Policy/Environmental eXtender Model (APEX). The same fields will be evaluated by both tools and compared based on the following outputs: phosphorus losses, nitrogen losses, erosion, soil carbon and organic matter.

Outputs:

- comparison and evaluation of a secondary stewardship evaluation tool, Agricultural Policy/Environmental eXtender Model (APEX). Acreage from the pilot farms will be assessed through APEX and compared with the Resource Stewardship Evaluation Tool (RSET). Outputs to be compared between the tools include phosphorus losses, nitrogen losses, erosion, soil carbon and organic matter. (September 1, 2021)
- development of the chosen tool, if necessary, to meet the needs of VESP (September 1, 2021)
- phosphorus reduction accounting through chosen tool for farms that improve management over time (September 1, 2021)

Outcomes:

- anticipated outcomes include increased enrollment in VESP with launch of the full program, and improved farmer knowledge of where and what conservation practices would meet nutrient reduction goals.

Organization: VT DEC to Vermont Agency of Agriculture, Food and Markets

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Lake Champlain Basin Program

EPA (FFY19)
Start Date: 10/1/2019
Close Date:
Grant Amount: $100,000.00

2019 Externally Managed Project — in progress

Floodplain Restoration and Functional Assessment

Project Summary

The purpose of this initiative is to develop and apply methods for mapping and quantifying opportunities to reconnect streams, riparian forests, wetlands, and floodplains. This project supports further development of methods and maps that quantify and display the natural erosion and depositional processes, as well as floodplain functions and values that could be achieved with stream and floodplain connectivity. The resulting products will help identify and track priority protection and restoration projects and be made available through outreach and training of watershed organizations and other natural resources restoration partners. This project will support production of a set of products that explain and track existing and potential river form and process, as well as the effectiveness of interventions to improve river and floodplain connectivity and function, integrate stakeholder programs involved in restoring stream and floodplain connectivity, and engage the public to support these interventions.

Outputs:

Vermont Lake Champlain Basin maps depicting:
- Existing and restoration potential of stream, wetland, and floodplain connectivity, hydrology, and sediment transport (erosion & deposition) processes;
- Natural functions, social values and economic assets within riverine landscapes; and
- Strategic projects and practices that maximize the protection and restoration of stream, wetland, riparian, and floodplain function and achieve relatively high benefit-cost ratios in consideration of affected socio-economic values.

- A tracking system to help explain existing reach and watershed departures from obtainable stream/floodplain form and process and facilitate the identification and tracking of restoration and protection through implemented projects and practices.
- Outreach tool(s) on floodplain and wetland natural functions and socio-economic values and or training module(s) supporting map use and tracking system components.
- two floodplain/wetland restoration and protection practices implemented.
- Estimated phosphorus load reductions achieved through floodplain/wetland restoration and protection.

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Outcomes:

- Reduced phosphorus loading and improved surface water quality.
- Increased flood resilience.
- Improved fish and wildlife habitat.
- Enhanced public recreational opportunities.
- increased state agency, public, and partner knowledge of the cost-benefits of implementing strategic floodplain/wetland restoration and protection practices, including potential to provide stormwater treatment credits through the restoration of natural floodplain and wetland functions.

Lake Champlain Basin Program

EPA (FFY19)
Start Date: 10/1/2019
Close Date:
Grant Amount: $600,000.00

2019 Externally Managed Project — in progress

How Does Groundwater from the Fractured Bedrock and Surficial Aquifers Affect Nutrient Levels (i.e. phosphorous and nitrate) in Surface Waters from the Lake Carmi Watershed?

Project Summary

Ground and surface water constitute a system that needs to be studied holistically. Groundwater may enter a stream and increase its flow (gaining stream) and/or surface water may leak from a stream into an underlying aquifer(s) (losing stream). Since cyanobacteria blooms in lakes are strongly influenced by phosphorous and nitrate in the water column, it is important to know whether groundwater, surface water, or both are responsible for the transport of nutrients from their source areas. This project is divided into physical (bedrock and surficial geologic mapping, spatial analysis of well reports/logs, construction of general hydrogeologic maps) and chemical (major and trace element chemistry, stable isotope, and groundwater recharge-age dating) hydrogeology parts. The physical portion results in the construction of a 3-D geologic framework and the chemical portion utilizes chemical tracers to convert the 3-D to 4-D (time). Nutrients such as phosphorous and nitrate, along with 33 other chemical parameters, will be analyzed from groundwater (bedrock and surficial wells) and surface water (streams and Lake Carmi) throughout the field area to track changes over time.

Outputs:

- A 3-D geological framework for the Lake Carmi watershed.
- GIS maps that show the spatial distribution of chemical parameters (including P and nitrate) in groundwater and surface water throughout the watershed.
- A Conceptual Site Model (CSM) that integrates the 3-D framework with the chemical data.

Outcomes:

- Increased understanding of the role that groundwater plays in transporting nutrients from source(s) to surface water bodies will impact management decisions on how to reduce phosphorus loading in Lake Carmi and other surface waters in Vermont and the northeastern United States.
- Preliminary visualization of ground- and surface water interaction in the Lake Carmi watershed.

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Lake Champlain Basin Program

EPA
Start Date: 1/1/2020
Close Date:
Grant Amount: $100,000.00

2019 Externally Managed Project — in progress

Implementation Support Program for Forestry Accepted Management Practices for the Lake Champlain Watershed

Project Summary

The development of a support program for forestry Accepted Management Practices (AMPs) will augment existing outreach, education and grant programs available to Vermont's forest economy. This project will equip logging contractors, foresters and landowners to increase understanding, skill and accuracy with which they imple-ment practices through the use of technology, physical equipment such as temporary skidder bridges and training in practices that promote protection of water quality in terms of hazardous materials used in logging operations. The support program aims to improve landowner, forester, and logging contractor awareness of forestry practices that protect water quality through contracted outreach by part-ners. Additionally, this project will replace undersized cul-verts, bridges and other infrastructure on state forestland to reduce risks of future discharges and improve stream habitat, while maintaining public access for recreation and forest management operations.

Outputs:

- AMP mobile application developed.
- A minimum of 12 temporary skidder bridges provided to logging contractors.
- Supplies and training related to the safe use, storage and cleanup of hazardous materials provided. Supplies will include oil spill kits, compost filter socks, straw wattles, and straw stabilization mats.
- Aging and inadequate infrastructure replaced at a minimum of five priority sites on state forestlands with active erosion in the Lake Champlain Basin.
- Data necessary to calculate the phosphorus load reduction achieved through construction of priority infrastructure projects.

Outputs:

- Improved surface water quality and aquatic habitat in for-estlands in Vermont's Lake Champlain Basin is anticipated as a result.

Organization: VT DEC to Vermont Department of Forest, Parks and Recreation

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VERMONT AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY19)
Start Date: 7/1/2019
Close Date:
Grant Amount: $450,000.00

2018 Externally Managed Project — in progress

Increased Implementation of Water Quality Improvement Projects in the Lake Champlain Basin of Vermont

Project Summary

The purpose of this project is to increase the successful implementation of accepted best management practices that will reduce the potential for nutrient impacts to surface waters in Vermont. Addressing the high subwatershed load reduction goals will require extensive education and practice implementation above and beyond regulatory compliance. This project expands financial assistance to farms through three existing programs:

1. Farm Agronomic Practices (FAP) program to implement soil-based practices that improve soil quality, increase crop production, and reduce erosion and phosphorus pollution.
2. Conservation Reserve Enhancement Program (CREP) to restore forested riparian buffers on critical agricultural lands; and
3. Best Management Practices (BMP) Program increased engineering services to install production area practices.

Outputs:
Increased implementation of verified and critical best management practices for nutrient reduction and prevention from farms. Estimated targets include:

- A minimum of 30 acres of riparian agricultural land will be removed from production and converted to riparian forested buffers and/or grassed filter strips.
- engineering support resulting in 8 practice installations,10 designs, and 3 manure and wastewater handling plans.
- a minimum of 5,500 acres of conservation practices on agricultural fields. Conservation practices may include cover crops, reduced tillage, crop rotations, grassed waterways, and alternative manure incorporation, all of which have proven effective in reducing phosphorus from entering Lake Champlain.

Outputs:

- improved water quality through implementation of production area and field best management practices and reduced nutrient loading to surface waters.

Organization: VT DEC to Vermont Agency of Agriculture, Food and Markets

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VERMONT AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY18)
Start Date: 10/1/2018
Close Date:
Grant Amount: $972,000.00

2019 Externally Managed Project — concluded

Long-Term Water Quality and Biological Monitoring Project for Lake Champlain

Project Summary

Long-term water quality and biological monitoring is necessary to detect environmental change in Lake Champlain and support implementation of the phosphorus TMDLs in Vermont and New York. Environmental indicators, monitoring stations, monitoring frequencies, and sampling procedures have been selected for this purpose. Statistical considerations were applied to optimize the design of the monitoring program. The project maintains a database and serves as the basis for establishing water quality, biological community, and lake environmental health relationships. The project has been ongoing since 1990.

Outputs:

- chemical and biotic data are collected at lake and tributary monitoring stations each year from late April through October. These data are made available on the Vermont DEC website and are summarized in an annual report.
- the annual report consists of a summary of the history and purpose of the project, description of the sampling network, summary of field sampling and analytical methods, parameter listings, and data tables. An up-to-date program description, graphical presentations of the data, and an interactive database, including statistical summaries, are maintained on the project website.

Outcomes:

- continue and expand monitoring of key baseline parameters in the Lake Champlain Basin to support the adaptive management process.
- maintain a unified data access system for coordination and data sharing among stakeholders in the Basin and produce timely and accessible summary reports for the general public.
- utilize data in support of ongoing phosphorus reduction efforts and other management activities.

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Organization: NYS DEC

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Lake Champlain Basin Program

EPA (FFY19)
Start Date: 9/30/2019
Close Date: **9/30/2020**
Grant Amount: $267,629.00

2018 Externally Managed Project — in progress

Municipal Stormwater Assessments (Public-Private Partnerships)

Project Summary

Stormwater assessments help prevent and reduce storm-water runoff from impervious areas by targeting manage-ment actions in areas of the developed landscape thought to be critical sources of phosphorus. The primary purpose of this project is to apply stormwater assessments specif-ically to municipal and private parcels that have three or more acres of impervious surface. The assessments will en-courage or incentivize regional stormwater treatment prac-tices that treat additional unregulated impervious cover adjacent to the 3 impervious acre parcel. The project will encourage the development of public-private landowner partnerships in meeting the anticipated 3-acre impervi-ous permit requirements. Properties will be assessed for stand-alone stormwater treatment as well as for expanded on site treatment for stormwater run-on from adjacent properties including adjacent man-made drainages. The assessments will be conducted with the goal of finding the most cost-effective nutrient reduction opportunities. The recommended actions identified through stormwater assessments will be integrated into tactical basin plans.

Outputs:

- 5-15 stormwater assessments in at least 5-10 municipalities in the Lake Champlain Basin of Vermont.
- 30% designs for 5-15 regional stormwater treatment practices (state-wide).
- These assessments, upon completion of final design and construction will lead to about 10 regional projects treating an average of 15 impervious acres or 150 impervious acres total.

Outputs:

- Increased knowledge of project outputs, including the summary report, project area summaries with maps, and 30% concept designs for staff and select board, or private landowners in municipalities where projects are located.

Organization: VT DEC

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AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY18)
Start Date: 10/2/2019
Close Date:
Grant Amount: **$250,000.00**

Externally Managed Project — in progress

New York Wastewater Treatment Facility Optimization to Reduce Effluent Phosphorus (Year 1)

Project Summary

This project focuses on the development and implementation of detailed optimization plans for wastewater treatment facilities (WWTFs) in the Lake Champlain basin of New York. WWTF optimization offers the potential for innovative solutions that can help to improve facility efficiencies, reduce effluent phosphorus loads, and reduce costs associated with other phosphorus control strategies by adjusting internal operations and process control within the existing treatment works. With the high costs associated with capital upgrades coupled with reductions in available funding, it is increasingly important that wastewater treatment facility operators look toward improving internal efficiencies and innovative solutions to help them achieve treatment necessary to meet permit limits. The project will result in implementation of WWTF optimization and will also provide technical assistance, education, and outreach for to municipal WWTF operators subject to reduced effluent phosphorus limits.

Outputs:

- development of facility optimization plans, including an evaluation of alternative methods for phosphorus reduction and recommendations for process control adjustments to improve phosphorus removal efficiency, implementation plans and timelines, and the projected total phosphorus load reduction with full implementation of wastewater optimizations.
- education of wastewater treatment operators and managers
- demonstration of tools and techniques to reduce phosphorus loading from WWTFs.

Outcomes:

- decreased nutrient loading to Lake Champlain

Organization: New York Department of Environmental Conservation

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Lake Champlain Basin Program

EPA
Start Date: 4/1/2020
Close Date:
Grant Amount: **$110,000.00**

2019 Externally Managed Project — in progress

Program to Expand and Accelerate Wetland Conservation and Restoration in Vermont's Lake Champlain Basin

Project Summary

Through this project, the Vermont Fish and Wildlife Department (FWD) will develop a focused land acquisition program around wetland acquisition and resto- ration in the Lake Champlain Basin. FWD will coordinate closely with a range of partners to identify, develop and implement wet-land conservation and restoration projects that will result in water quality protection, improvement and long-term management under FWD ownership.

Outputs:

- four to seven wetland acquisition projects completed in the Lake Champlain Basin with a minimum of 40% of the total land acquired including a change in land management strategy that will result in water quality improvement, and a minimum of 200 acres restored.
- estimated phosphorus load reductions achieved through wetlands conservation and restoration. While we are unable to estimate this at present, we will track the necessary data and anticipate this capacity within the project timeline.

Outcomes:

- improved functions and values of existing, degraded wetland acres in the Lake Champlain Basin, such as surface water nutrient retention, stormwater retention, filtration, and gradual discharge, groundwater recharge, reduced soil erosion, and floodwater attenuation, which will result in improved surface water quality.
- improved coordination of wetland acquisition and restoration projects for efficiency and more effective use of federal and state resources.
- enhancement of wildlife habitat, public access, flood protection, and wildlife-based recreation.

Organization: VT DEC to Vermont Fish and Wildlife Department

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Lake Champlain Basin Program

EPA (FFY18, FFY19)
Start Date: 7/1/2019
Close Date:
Grant Amount: **$1,700,652.00**

2019 Externally Managed Project — in progress

Stormwater Planning, Design, and Construction of Green Stormwater Infrastructure at Public Schools and Vermont State Colleges in the Lake Champlain Basin in Vermont

Project Summary

The Green Schools Initiative supports two phases with funding from federal fiscal project years 2018, 2019, and 2020 and builds off assessments to better understand the number of schools interested in early adoption and stormwater needs. Phase 1 supports schools in their obtainment of a permit that meet the stormwater standards outlined in Stormwater General Permit 3-9050, including 100% design, completion of site plans, and an engineering feasibility analysis to demonstrate compliance with the Vermont Stormwater Management Manual. Phase 2 supports implementation of construction work needed for permit compliance. This initiative builds on efforts already underway with the goal of obtaining permit coverage and subsequent construction to reduce phosphorus and sediment discharges from developed parcels with three or more acres of impervious surface.

Outputs:

- Obtainment of General Permit 3-9050 (or Individual Permit) coverage at up to 30 public schools and state colleges (Phase 1).
- Construction of stormwater treatment practices to comply with General Permit 3-9050 standards at as many schools as practicable given the funding (Phase 2).
- Anticipated outcome of 47.5 kilograms per year total phosphorus load reduction achieved by stormwater best management practices, resulting in improved surface water quality. This includes the reductions from designs once they are constructed as required to comply with General Permit 3-9050, which is not anticipated in the timeframe of this workplan.

Outcomes:

- Reduced stormwater runoff, phosphorus, and pollutant loading to Lake Champlain Basin
- Early adoption and increased visibility of sites with three acres or more of impervious surface meeting enhanced stormwater standards.
- Increased knowledge of GSI as a means to address stormwater runoff for students, teachers, and administrators.

Organization: VT DEC

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Lake Champlain Basin Program

EPA (FFY19)
Start Date: 10/1/2019
Close Date:
Grant Amount: **$2,200,000.00**

2018 Externally Managed Project — in progress

Using GSI (Green Stormwater Infrastructure) and Other Technologies to Reduce Combined Sewer Overflows (CSOs)

Project Summary

Combined sewage overflow (CSO) events release phosphorus and pathogen pollution into Vermont's surface waters, trigger beach closures, increase the health risk to the public, and violate Vermont Water Quality Standards. The purpose of this project is to employ green stormwa-ter infrastructure (GSI) to reduce polluted runoff and high stormflows from developed lands that drain into combined sewer system (CSS) areas and contribute to combined sew-er overflows (CSOs). Installation of GSI stormwater treatment practices will slow, infiltrate, and/or treat stormwater runoff from roads and other impervious developed lands and/or disconnect impervious surfaces from CSSs.

Outputs:

- Final design(s) completed.
- Constructed GSI or other rainwater harvesting storm-water treatment practices.
- Signed 10-year (minimum) O&M Plan(s) and Agreement(s).

Outputs:

- Reduced stormflows and associated phosphorus pollu-tion from developed lands.
- 20-25 acres of impervious surface treated, with a reduction 9-12 kilograms of total phosphorus load de-livered to Lake Champlain reduced per year, which will result in improved surface water quality.
- Reduced CSO events and associated beach closures, bacteria pollution, and violation of Vermont Water Quality Standards.
- Reduced flooding associated with stormflows from developed lands.

Organization: VT DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY18)
Start Date: 10/1/2018
Close Date:
Grant Amount: **$1,118,843.00**

2018 Externally Managed Project — in progress

Wastewater Treatment Facility Optimization to Reduce Effluent Phosphorus

Project Summary

This project focuses on the development and implementation of detailed optimization plans for wastewater treatment facilities (WWTFs) in the Lake Champlain ba-sin of Vermont. WWTF optimization offers the potential for innovative solutions that can help to improve facility efficiencies, reduce effluent phosphorus loads, and reduce costs associated with other phosphorus control strategies by adjusting internal operations and process control within the existing treatment works. The project will result in im-plementation of WWTF optimizations and will also provide technical assistance, education and outreach for to munici-pal WWTFs subject to reduced effluent phosphorus limits.

Outputs:

- Outreach on innovative phosphorus reduction opportunities to WWTF managers.
- Demonstration of tools and techniques to reduce phosphorus loading from WWTFs.
- Phosphorus optimization plans, including an evaluation of alternative methods for phosphorus reduction and recommendations for process control adjustments to improve phosphorus removal efficiency, implementa-tion plans and timelines, and the projected total phos-phorus load reduction over the next five years with full implementation of wastewater optimizations.

Outputs:

- Reduce levels of sediment, phosphorus, and toxic substances from eroding into streams, and improve recreational use and safety of these waters by people. Additionally, transportation infrastructure flood resil-ience will be improved using the same suite of BMPs.

Organization: VT DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY18, FFY19)
Start Date: 10/1/2018
Close Date:
Grant Amount: $280,000.00

2019 Externally Managed Project — concluded

Water Chestnut Management Partnership 2019 - Lake Champlain Basin

Project Summary

The Vermont Department of Environmental Conservation (VT DEC) continued water chestnut management north-to- south in Lake Champlain and adjoining tributaries, as well as other waterbodies in Vermont. The effort included both mechanical and hand removal of water chestnut to pre-vent the plant's northward expansion in Lake Champlain and further spread in the Basin, and to reduce water chest-nut in other waterbodies. VT DEC will also continue a new initiative piloted in 2018, to employ unmanned aircraft sys-tems (UAS or drones) technology to increase the efficiency of hand-harvesting efforts, and to monitor sites that have been the focus of long-term efforts. Funding from LCBP supported contracted hand-pulling with a portion of the funds sought from LCBP will contribute to this element.

Outputs:

- Up to 86 Lake Champlain sites between Missisquoi Bay, Vermont and Dresden, New York on both the Vermont and New York sides of the lake with water chestnut will be managed by hand harvesting, including five sites within the Missisquoi Bay segment.
- Searches for water chestnut will be conducted in 26 other Basin waters of Vermont.
- Water chestnut population locations and maps with population monitoring using unmanned aerial systems.

Outputs:

- Harvesting efforts will continue to reduce densities, prevent further spread, and shift Lake Champlain populations from dense mats in need of mechanical harvesting to populations that can be managed by hand-pulling.
- In addition, results of a pilot monitoring project will help inform future management decisions.

Organization: VT DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY19)
Start Date: 7/1/2019
Close Date: **6/30/2020**
Grant Amount: **$90,000.00**

2020 Externally Managed Project — in progress

Water Chestnut Management Partnership 2020 - Lake Champlain Basin

Project Summary

The Vermont Department of Environmental Conservation (VT DEC) continued water chestnut management north-to-south in the waters of Lake Champlain and the surrounding basin. In 2020 and 2021, VTDEC will monitor, remove, and dispose of hand harvested water chestnut at up to 81 Lake Champlain sites and 29 other water bodies via contract and multiple partnerships. U.S EPA funds awarded via the Lake Champlain Basin Program (LCBP) in FFY2020 will contribute to a VTDEC-overseen contracted hand harvesting program at the majority of these sites, all of which are within the Lake Champlain Basin. VTDEC will also continue a new initiative piloted in 2018, to employ unmanned aircraft systems (UAS or drones) technology to increase the efficiency of hand-harvesting efforts, and to monitor sites that have been the focus of long-term efforts. It is expected that this monitoring data will inform management plans in the future, and further increase the efficacy of the program. A portion of the funds sought from LCBP will contribute to this element.

Outputs:

- Data compilation of hand-harvesting of water chestnut at up to 81 Lake Champlain sites and searches of water chestnut conducted in 29 other waterbodies in the basin.
- Hand harvesting of water chestnut at five sites in the Missisquoi Bay segment.
- Water chestnut population locations and maps
- Updated Geospatial &/or Unmanned Aerial Systems Map.
- Number and weight of plants harvested.
- 2020 and 2021 Water Chestnut Indicators Tables.

Outcomes:

- Harvesting efforts will continue to reduce densities, prevent further spread, and shift Lake Champlain populations from mechanical means to hand harvest and continued surveillance.
- In addition, results of a pilot monitoring project will help inform future management decisions.

Organization: VT DEC

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Lake Champlain Basin Program

EPA (FFY20)
Start Date: 7/1/2020
Close Date:
Grant Amount: **$150,000.00**

2018 Externally Managed Project — in progress

Wetland Restoration and Mapping

Project Summary

This project provides funds to achieve expansion of wetland restoration and protection efforts through easement acquisition and restoration, or restoration of existing conserved lands. Wetland restoration projects will target critical areas where restoration would result in the attenu-ation of nonpoint source phosphorus, thereby maintaining and improving downstream water quality. Additionally, this project will enhance the restoration tools by improv-ing on the National Wetlands Inventory within a portion of the Otter Creek Basin, an area of the state which has the biggest potential for wetland restoration. In partnership with the Natural Resources Conservation Service and conservation organizations, this project supports wetland restoration along with wetland buffer, river corridor, and floodplain restoration in the Lake Champlain Basin in Vermont.

Outputs:

- Conservation and or restoration of at least 80 acres of wetlands, wetland buffer, river corridor, and floodplain in the Lake Champlain Basin in Vermont.
- Wetland maps with a higher accuracy of wetland identification for the upper half of the Otter Creek Basin.
- Wetland mapping applied to restoration project creation to be used as a tool for phosphorus load reduc-tion estimations.

Outputs:

- Reduction in phosphorus loading, increased flood resilience, improved fish and wildlife habitat, and en-hanced public recreational opportunities.

Organization: VT DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY18)
Start Date: 10/1/2018
Close Date:
Grant Amount: **$399,348.00**

ABOUT THE LCBP

The Lake Champlain Basin Program (LCBP) coordinates and funds efforts that benefit the Lake Champlain Basin's water quality, fisheries, wetlands, wildlife, recreation, and cultural resources, in partnership with government agencies from New York, Vermont, and Québec, private organizations, local communities, and individuals.

The Lake Champlain Basin Program was created in 1992 at the recommendation of the Lake Champlain Management Conference. The Management Conference was a multi-jurisdictional effort led by the U.S. Environmental Protection Agency (US EPA) upon the signing of the Lake Champlain Special Designation Act, under Section 120 of the U.S. Clean Water Act on November 5, 1990. Sponsored by Senators Leahy and Jeffords from Vermont and Senators Moynihan and D'Amato from New York, this legislation designated Lake Champlain as a resource of national significance and required examination of water quality, fisheries, wildlife, recreational, and economic issues.

Before passage of the Act, natural resource managers faced the challenge of addressing specific problems requiring immediate action while also charting a comprehensive, integrated plan for the future of the Lake Champlain Basin. To address this challenge, the Lake Champlain Special Designation Act authorized funding through the US EPA to the States of Vermont and New York, and to NEIWPCC in support of the Lake Champlain Basin Program to work collaboratively toward achieving management goals outlined in *Opportunities for Action,* the management plan for Lake Champlain.

In FY 2020, the LCBP received federal funding from the U.S. Environmental Protection Agency, the Great Lakes Fishery Commission, the National Park Service, and the International Joint Commission. NEIWPCC—a regional commission that helps the states of the Northeast preserve and advance water quality—serves as the primary program administrator of LCBP at the request of the Lake Champlain Steering Committee, and administers the program's personnel and finances. LCBP is a program partner of NEIWPCC.

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