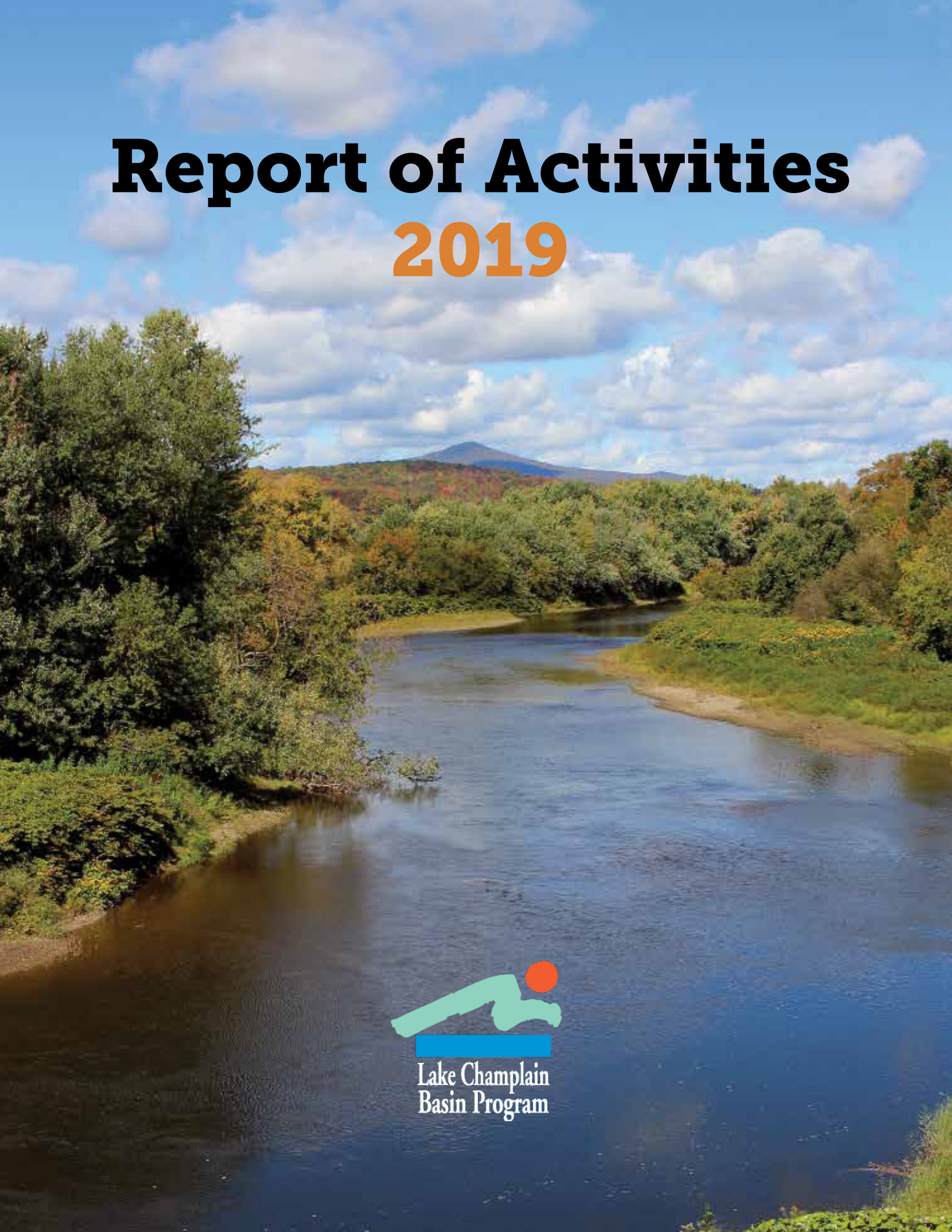
Report of Activities

2019



Lake Champlain Basin Program

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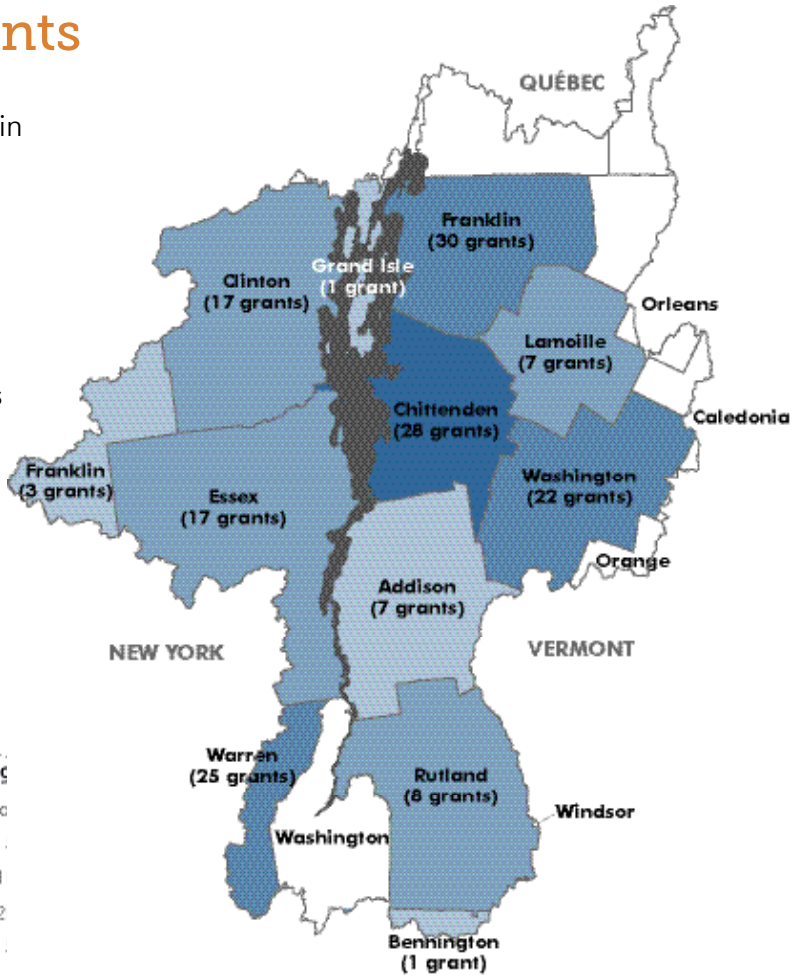
Local Implementation Grants

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 2019, the LCBP administered **$2,042,000** for **166** local grants across **6** grant categories.



Program Grants

Each year, the LCBP supports a number of research and implementation projects that help achieve the goals of the Program and its management partners. The awards for these projects are generally larger than local grants, and are solicited with Requests for Proposals from universities, consultants, research foundations, and other organizations.

These larger program projects provide the foundation for informing critical decisions for limited management resources. Results from these studies often inform policy, and are extended to educational programming and training opportunities by partners across the watershed.

Fiscal Year 2019 was another productive year for the Lake Champlain Basin Program. With strong funding support secured by the Basin's Congressional delegation, staff managed more than 150 grants, ranging from $2,500 capacity-building grants to larger research and implementation projects of $250,000. In addition to grant management, staff worked on many other projects that advance the goals of the LCBP's management plan *Opportunities for Action*: clean water, healthy ecosystems, thriving communities, and an informed and involved public. The pages that follow contain highlights for the year in each of these areas.

The goals of *Opportunities for Action*, of course, are inextricably linked. Their interconnectedness was evident in 2019 in the Program's participation in the International Year of the Salmon (IYS) commemoration. The year-long celebration was an opportunity to advance efforts to restore the once-abundant species to the waters of the Basin and recognize the fish's historical role in the region. It was a focus of much of the program's work over the course of the year and an opportunity to contribute the resources and expertise of all of its programs.

IYS also emphasized the benefits of the strong partnerships. The fortuitously timed discovery in summer 2019 of naturally reproduced salmon fry in the Boquet River in New York was symbolic of decades of collaboration by agencies, academic institutions, and other members of the Lake Champlain Fish and Wildlife Management Cooperative. In preparation for the IYS celebration itself, the LCBP worked closely with the U.S. Fish and Wildlife Service, the Lake Champlain Maritime Museum, and other partners on several initiatives to mark the occasion. These types of relationships bring a broad, multi-disciplinary approach that enhance our ability to tackle the challenges in managing the Lake Champlain Basin's resources. The LCBP is proud to be a part of these partnerships.

Eric Howe, Director, LCBP and CVNHP

Jim Brangan, Associate Director, CVNHP

Phil Brett, Information Officer

Mae Kate Campbell, Technical Associate

Fred Dunlap, New York Lake Champlain Coordinator (NYS DEC)

Sue Hagar, Education & Outreach Steward

Colleen Hickey, Education & Outreach Coordinator

Laura Hollowell, LCBP Resource Room Coordinator

Kathy Jarvis, Office Manager

Lauren Jenness, Environmental Analyst

Ellen Kujawa, Technical Associate

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

Bethany Sargent, Vermont Lake Champlain Coordinator (VT ANR)

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

Matthew Vaughan, Technical Coordinator

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.

Local Grant Highlights

Riparian Restoration Protocol: The Ausable River Association surveyed vegetation, planted seedlings, and assessed effectiveness of maintenance approaches to develop a protocol for riparian planting in the Adirondacks.

VSECU Rain Garden: The Montpelier Conservation Commission coordinated construction of a rain garden to infiltrate and slow stormwater runoff from the VT State Employees Credit Union parking lot.

Green Stormwater Infrastructure: Friends of Northern Lake Champlain will install 3-4 green stormwater infrastructure best management practices at 3 public schools in the towns of Alburgh, Georgia, and Fairfax, Vermont.

Gravel Wetland Retrofit: The City of South Burlington, VT, converted a detention basin to a gravel wetland to reduce runoff from impervious surfaces by 75% in a suburban neighborhood with persistent stormwater problems.

Septic System Inventory: The Assembly Point Water Quality Coalition documented underwater algae, inventoried septic systems in Queensbury, NY, and produced brochure to explain new septic rules.

Road Salt Reduction; The Town of Keene, NY will purchase and install material application controllers on equipment in order to accurately measure and control the amount of salt applied on the roads.

Culvert Replacement: The Lake George Association worked with the Town of Dresden to replace a culvert on Foster Brook. The wider structure helps reduce phosphorus entering Lake George and improves fish passage.

Stormwater & Habitat Improvement: Warren County SWCD will embed new culverts, reshape and stabilize failing sections of existing swale and install a 1,000 sq ft pollinator garden to reduce urban impacts.

CSO Reduction: The Greater Burlington YMCA will design and implement continuous monitoring and adaptive control (CMAC) "smart control" technology on the underground stormwater detention vault.

Photos: Ausable River Association, Montpelier Conservation Commission, APWQC, LGA, City of South Burlington (clockwise from top left)

CLEAN WATER

Program Highlights

In addition to managing grants, LCBP staff oversee numerous projects and provide expertise in collaborative efforts to improve water quality in the Lake Champlain Basin. In Fiscal Year 2019, LCBP staff:

- Conducted analyses and produced a **Lake Champlain tributary loading report** which examines trends in pollutant delivery from the Lake's major tributaries since 1990.
- In cooperation with Organisme de basin versant de la baie Missisquoi (OBVBM), completed a preliminary draft of the report ***Nutrient Loading and Impacts in Lake Champlain, Missisquoi Bay, and the Richelieu River*** as part of the International Joint Commission's Missisquoi Bay Water Quality project.
- Served in **leadership positions** with numerous professional organizations and committees, including North American Lake Management Society, agricultural tile drain advisory committee, and regional brownfields advisory committee.
- Coordinated the 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.
- Collected critical data for scientific analyses and watershed management as part of the **Long-term Water Quality and Biological Monitoring Program.**

Phosphorus Retention in Riparian Wetlands: Scientists at the University of Vermont are determining the capacity of restored riparian wetlands to hold phosphorus to help guide future wetland protection efforts.

State of the Lake Exhibits: ECHO developed interpretive exhibits to communicate the content of the LCBP's *State of the Lake* Report. Exhibits are located inside and in outside public space on the waterfront.

Volunteer Cyanobacteria Monitoring Program: The Lake Champlain Committee coordinates and trains volunteers to monitor and report cyanobacteria blooms each summer to help ensure public health.

Phosphorus from Tile Drainage: Newtrient, LLC is developing a model to estimate how much phosphorus comes from tile drains in agricultural fields and to evaluate the effectiveness of P reduction practices in tile drained fields.

Photos: UVM, LCBP, LCBP, LCBP (clockwise from top left)

- 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.
- Supported the International Joint Commission's **Lake Champlain-Richelieu River Study Board** analysis of flooding causes, impacts, risks, and solutions.

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
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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**

2016 Local Implementation Grant concluded

BMP Prioritization & Design in the Mad River Headwaters

Project Summary

Friends of the Mad River (FMR) proposes launching a program that will position FMR to more strategically and efficiently guide BMP projects through the scoping, design, and implementation phases and to quickly access implementation funding as it arises. The overall goal of this program is to improve the water quality of the Mad River and Lake Champlain watersheds by reducing damaging stormwater runoff from sensitive, headwater residential development. Specific objectives include: a list of prioritized implementation sites, an established Storm Smart program, a queue of engaged landowners, and a suite of "shovel ready" projects.

Outputs:

- Contract with a stormwater professional to identify ten common plans of development (CPODs are defined as two or more residences accessed from one private roadway) and fifteen sites for engineering focus
- conduct thirty stormwater property audits, and complete 30% engineering designs for six priority properties.

Outcomes:

- Planning to reduce stormwater runoff in the Mad River watershed.

Organization:	Friends of the Mad River
Contact Person:	Corrie Miller
Mailing Address:	PO Box 255 Waitsfield, VT 05673
Phone:	(802) 496-9127
E-mail:	friends@madriver.com
Website:	www.friendsofthemadriver.org

Storm Smart driveway in action

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-054
EPA	0993-003-001
Start Date:	9/21/2017
Close Date:	**8/19/2019**
Grant Amount:	$49,865.00
Non-federal Match:	$14,945.00
Total Amount:	**$64,660.00**

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

Mailing Address: PO Box 765
Lake George, NY 12845

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**

2016 Local Implementation Grant

concluded

Clinton County Shared Vacuum Trailer

Project Summary

Working with local highway departments, situations that would benefit from equipment that individual towns or villages could not afford were identified. Runoff from roads and roadside erosion is a significant contributor of sediment and nutrients, including phosphorus, into the watershed. Permanent infrastructure such as catch basins, sediment basins, and culverts often become plugged with sediment, causing overflowing, flooding and possible failure.

These structures act to trap sediment before it is discharged into nearby streams or rivers. If not cleaned out, structures become full and excess sediment is discharged into the drainage system. Maintenance of these sediment traps can be done by hand or with conventional equipment, but is often not possible in towns with less manpower. The purchase of the trailer mounted vacuum, for use by all Clinton County municipal crews, will reduce these negative impacts on local water bodies and preserve the natural assets of local communities and the regional economy.

With delivery made in early September the vacuum trailer was brought to the monthly Highway Superintendents meeting and generated considerable interest from local towns. As highway departments use the vacuum and realize its usefulness, they have begun planning ahead to be more proactive about storm drain maintenance.

Outputs:

- purchase of a sediment vacuum trailer in June 2017 for use of 15 NY towns and 3 villages.
- Over 80 storm drains, sediment traps and culverts were cleaned out in the first year.
- training of crews

Outcomes:

- decreased sediment and phosphorus runoff to Lake Champlain

Organization:	Clinton County SWCD
Contact Person:	Peter Hagar
Mailing Address:	6064 Route 22 Plattsburgh, NY 12901
Phone:	518-561-4616
E-mail:	peter.hagar@ccsoil-water.com
Website:	http://clintoncountyswcd.org/

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-035
EPA	993-003-001
Start Date:	4/17/2017
Close date:	**3/13/2019**
Grant Amount:	$72,996.00
Non-federal Match:	$10,335.00
Total Amount:	**$82,996.00**

2018 Local Implementation Grant

in progress

Foster Brook Culvert Replacement

Project Summary

This project will remove a culvert that is perched above the stream and isn't wide enough to handle storm events for this watershed. It will be replaced by an open bottom aluminum box culvert that is over twice the width of the old culvert.

The output of the project is the. The outcome will be that.

Outputs:

- a new open bottom culvert

Outcomes:

- the new culvert will eliminate the firehose effect that was created in the old culvert during storm events that will greatly improve erosion issues downstream

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.

NEIWPCC Code:	LS-2018-006
EPA	0994-002-001
Start Date:	5/23/2018
Grant Amount:	$54,585.00
Non-federal Match:	$17,880.00
Total Amount:	**$73,465.00**

Lake Champlain Basin Program

NEIWPCC Code:	
EPA	
Start Date:	
Close Date:	
Grant Amount:	
Non-federal Match:	
Total Amount:	

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**

2016 Local Implementation Grant

concluded

Inventory and Assessment of Roof Drains in the Combined Sewer Service Area of Montpelier, Vermont

Project Summary

In March of 2018, the City of Montpelier retained Aldrich + Elliott, PC (A+E), partnered with Stone Environmental Inc (Stone), to develop an inventory and assessment of roof drains connected to the City's Sewer Collection System with the ultimate goal of reducing water volumes at the Wastewater Treatment Facility. The City-wide inventory consisted of public outreach, internal plumbing inspections of commercial buildings, and a "windshield" survey of residential neighborhoods. The study also prioritized areas for disconnection by zoning district, and developed proposed City ordinance changes to encourage commercial property owners to disconnect their roof drains.

A total of eleven commercial properties were inspected internally with six receiving a "connected" or "suspected connected" determination. Additionally, of the 188 structures identified in residential areas during the "windshield" survey, 159 received a "connected" or "suspected connected" determination. Once compiled, volume contributions were calculated based on a rainfall rate of 1"/hour. Based on this rainfall rate, it is estimated that commercial properties identified in the inventory contributed an estimated 161,800 gallons per hour. Similarly, residential buildings identified in the survey contributed an estimated 134,794 gallons per hour (total estimated volume contribution is 296,600 gallons per hour).

The last step of this work consisted of developing ordinances changes to encourage roof drain disconnection. After a literature review, proposed ordinance changes were developed to require disconnection of roof drains in new construction and significant renovation projects for commercial properties. Moving forward, the City will consider implementing these ordinances and begin approaching building owners within the identified priority zones to encourage disconnection and/or assess the appropriate sewer surcharge.

Outputs:

- Inventory and assessment of roof drain connections in Montpelier, Vermont

Outcomes:

- Increased knowledge of stormwater runoff in the Winooski sub-basin

Organization: City of Montpelier

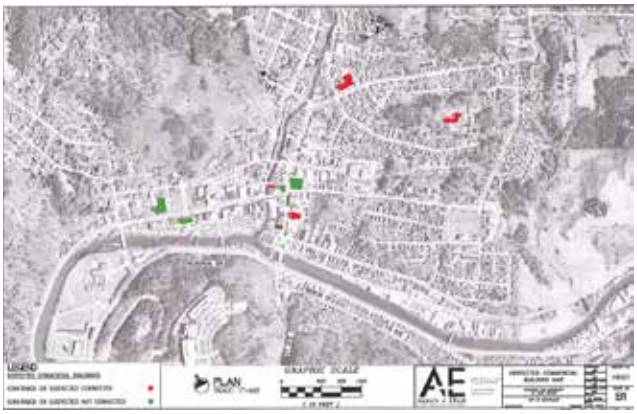
Contact Person: Kurt Motyka

Mailing Address: 39 Main Street
Montpelier, VT 05602

Phone: 802-262-6277

E-mail: kmotyka@montpelier-vt.org

Website: http://www.montpelier-vt.org/



Lake Champlain Basin Program

NEIWPCC Code:	L-2017-048
EPA	0993-003-001
Start Date:	6/12/2017
Close Date:	**9/6/2019**
Grant Amount:	$49,843.00
Non-federal Match:	
Total Amount:	**$49,843.00**

2019 Local Implementation Grant

in progress

Kennedy Drive Pond 5/6 Retrofit

Project Summary

The Kennedy Drive Pond 5-6 Retrofit project aims to expand the drainage area of Kennedy Drive "Pond 5", an infiltration treatment practice. This project will modify the existing stormwater collection system to redirect runoff that is currently going into Kennedy Drive Pond 6 into the infiltrating system of Pond 5. Additionally, modifications will be made to the collection system to direct runoff from the Windridge Condominium development into Pond 5. Retrofitting the collection system to expand the drainage area to Pond 5 will result in a significant reduction of phosphorous delivered to Lake Champlain from Kennedy Drive and an adjacent neighborhood. In addition, the project will reduce 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:	
Grant Amount:	$112,000.00
Non-federal Match:	$ 28,000.00
Total Amount:	**$140,000.00**

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 storm-water 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, hard-ware installation, site commissioning, final software configuration, production optimization support, proj-ect startup, eight month performance summary.

Outcomes:

- scalable public private partnerships, community ed-ucation, 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**

2016 Local Implementation Grant concluded

Retrofit of Pinnacle at Spear Stormwater Pond A

Project Summary

The Pinnacle at Spear Stormwater Pond A project aims to bring an existing stormwater pond up to current stormwater treatment standards. In its current condition, this detention pond does not provide the flow reduction and nutrient removal that modern stormwater treatment systems regularly achieve. Pond A will be upgraded to function as a subsurface gravel wetland, which will result in a significant reduction of phosphorous delivered to Lake Champlain from the neighborhood, as well as reduce peak flows to the stormwater impaired Bartlett Brook. Successful implementation of this project will result in the construction of the pond retrofit, which will provide improved stormwater treatment to 4.5 impervious acres within the Bartlett Brook watershed.

Outputs:

- Implementation of a hydrodynamic separator, bioswale, and bioretention basin in the Village of Lake George. Preliminary runoff reductions calculated through the STEPL program indicate that by installing these practices there will be a 15% sediment reduction, 5% phosphorus reduction and 5% nitrogen reduction. This equates to a reduction of 800 pounds of sediment, 2.5 pounds of phosphorus and 17 pounds of nitrogen per year.

Outcomes:

- Stormwater nonpoint source run-off pollution reduction to Lake George in the Lake Champlain Basin
- Decreased nutrient and sediment pollution to Lake Champlain, increased public knowledge of suburban stormwater management

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

Completed retrofit

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-013
EPA	994-002-001
Start Date:	8/22/2018
Close Date:	**7/25/2019**
Grant Amount:	$125,000.00
Non-federal Match:	$ 18,900.00
Total Amount:	**$143,900.00**

2016 Local Implementation Grant

concluded

South Lake Champlain Shoreline Stabilization and Runoff Reduction Project

Project Summary

In 2012, the Town of Putnam acquired a 13-acre property on the shoreline of South Lake Champlain for the creation of a Town Park. The property, which was actively farmed until the purchase, had a drainage pattern that sloped to the Lake, which created a series of head-cuts at the top of the bank and gullies cutting down the bank. This runoff pattern, which includes 5.5 acres of the property, had destabilized the top of approximately 600 feet of bank with a 15% slope composed of Vergennes silty clay loam soil.

To stop the runoff from reaching the bank, the Town installed a large, gradual vegetated berm along the top of the bank with a sloping bioretention area behind it to capture and infiltrate the runoff from the field. The project tasks and objectives were achieved through an existing partnership between the Town, Washington County Soil and Water Conservation District and Lake Champlain – Lake George Regional Planning Board, who assisted with project and grant management to ensure that the project was completed efficiently and in a timely manner.

Outputs:

- Installation of two biortention basins
- Placement of six raised stormwater diversion planters along the shoreline.
- Planting of 31 tree saplings

Outcomes:

- Reduced erosion and sediment load to Lake Champlain

Organization:	Town of Putnam
Contact Person:	Gary Treadway
Mailing Address:	10 Putnam Center Road Putnam, NY 12861
Phone:	(518) 547-8297
E-mail:	grtreadway@gmail.com
Website:	http://www.townofputnamny.com/

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-039
EPA	0993-003-001
Start Date:	6/1/2017
Close Date:	**11/20/2018**
Grant Amount:	$104,520.00
Non-federal Match:	
Total Amount:	**$104,520.00**

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

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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**

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
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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**

2016 Local Implementation Grant concluded

Village of Fort Ann Wastewater Treatment Plant Upgrade Plan and Concept Design

Project Summary

The Village of Fort Ann's Wastewater Treatment Plant was evaluated for flows, loadings, and existing condition of the plant, and three designs for upgrades were developed by an engineering firm. The plant is in a satisfactory condition and appears to be meeting SPDES permit levels. However, there are several deficiencies at the plant. The major glaring issue is the lack of redundancy with respect to both process tanks and ancillary equipment. There is only one secondary treatment system, which includes aeration and secondary clarification. If there were to be a catastrophic failure, there is no backup process to treat the water. In addition, there is only one aeration blower, so if this blower fails, the wastewater treatment process cannot work. The Village has a supply of spare parts for repair in case of equipment failure, but redundancy is needed. In addition to the lack of redundancy, the building over the Imhoff tank (a primary settling tank) is old and falling into disrepair, presenting a safety hazard. The collection system is aging and during high precipitation events, excess water enters the plant. Overall, the plant is aging and needs to be rehabilitated. Three options were presented to the Village for upgrading the facility and were evaluated for cost, constructability, and performance.

Outputs:

- Three potential upgrade designs for the Fort Ann wastewater treatment facility

Outcomes:

- Potential to upgrade wastewater infrastructure in the Lake Champlain Basin, decreasing nutrient loading to Lake Champlain

Organization:	Village of Fort Ann
Contact Person:	Denis Langlois
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Phone:	518-668-5773
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Website:	N/A

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-044
GLFC	0100-310-027
Start Date:	5/25/2017
Close Date:	
Grant Amount:	$50,000.00
Non-federal Match:	$ 1,081.51
Total Amount:	**$51,081.51**

2016 Local Implementation Grant concluded

Development of an Approach and Tool to Optimize Farm Scale P Management and Achieve Watershed Scale Loading

Project Summary

A new web-based tool, the Farm-P Reduction Planner (Farm-PREP), was developed to enable farmers to more effectively and efficiently identify modifications to their field operations in order to meet a target reduction in phosphorus (P) leaving the farm and help to achieve water quality improvement goals at the watershed scale. Development of this tool was motivated by the need to quantify reductions in P loads leaving farms due to the adoption of best management practices (BMPs) and to determine how those reductions compare to targets established based on the Lake Champlain Basin P Total Maximum Daily Load (TMDL). The Farm-PREP tool is based on the US Department of Agriculture, Natural Resource Conservation Service's Agricultural Policy/Environmental eXtender Model (APEX). The APEX model is a physically-based agronomic and water quality model designed for simulations at the field to farm/small watershed scale. The unique aspects of this project include the implementation of APEX through a streamlined, web-based user interface and the incorporation of optimization functionality that automatically identifies field-specific management options that meet water quality targets. The project represents a Phase 1 pilot of the Farm-PREP tool, with initial demonstration in the St. Albans Bay watershed in St. Albans, Vermont.

Outputs:

- Web-based Farm-PREP tool
- Final report and user guide for the Farm-PREP tool

Outcomes:

- A tool and guide for agricultural producers to meet watershed-scale phosphorus reduction goals.
- Reduced phosphorus loading to Lake Champlain from agricultural sources

Organization: Stone Environmental

Contact Person: Michael Winchell

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Montpelier, VT 05602

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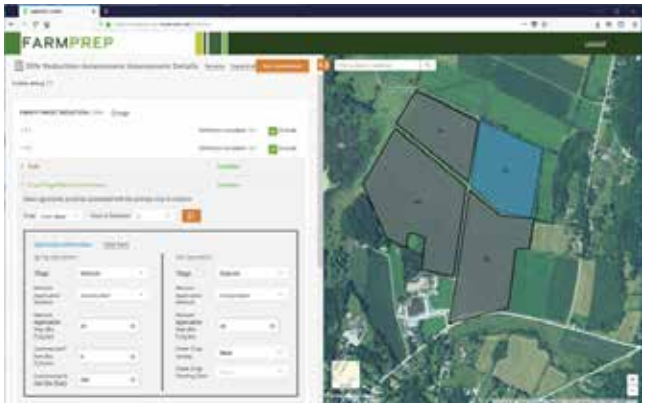
Website: https://www.stone-env.com/



Lake Champlain Basin Program

NEIWPCC Code:	L-2017-051
EPA	0993-003-001
Start Date:	6/15/2017
Close Date:	**10/15/2018**
Grant Amount:	$189,945.00
Non-federal Match:	
Total Amount:	**$189,945.00**

2016 Local Implementation Grant

concluded

Feasability Evaluation of P Removal via Engineered Ecosystems in the St Albans Bay Watershed

Project Summary

Development of a treatment train facility to remove phosphorus from Jewett Brook prior to discharge to St. Albans Bay has the potential to accelerate water quality improvements in St. Albans Bay. Implementing a treatment train facility on Jewett Brook would involve withdrawing, treating, and releasing a portion of the streamflow. This facility could extend and enhance ongoing agency programs focused on implementation of agricultural conservation practices and nutrient management and bring the St. Albans Bay phosphorus targets within reach.

Representatives of the local, state, and federal government bodies that will determine the outcome of this project were convened to evaluate the regulatory feasibility of developing a treatment facility on Jewett Brook. The evaluation served to clarify which resource concerns were paramount as well as possible ways to avoid or mitigate impacts to these resources. The resource concerns that emerged as most challenging are 1) entrainment of fish (specifically larvae) in intake pumps; 2) potential impacts to aquatic organisms and their habitats due to warming of water at the discharge location; and 3) potential impacts to fish species recruitment due to alteration of the natural hydraulic flow within Jewett Brook and the Black Creek Wildlife Management Area.

Outputs:

- A summary report on the findings of the regulatory feasibility of an engineered ecosystem to reduce phosphorus loads to St. Albans Bay

Outcomes:

- An increased understanding of alternative and innovative options to reduce phosphorus loading to Lake Champlain.

Organization:	Stone Environmental
Contact Person:	Dave Braun
Mailing Address:	535 Stone Cutters Way Montpelier, VT 05602
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Website:	https://www.stone-env.com/

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-038
EPA	0993-003-001
Start Date:	6/1/2017
Close Date:	**8/21/2018**
Grant Amount:	$36,000.00
Non-federal Match:	
Total Amount:	**$36,000.00**

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: Becky Tharp

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Burlington, VT 05401

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E-mail: becky@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

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Montpelier, VT 05602

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E-mail: dbraun@stone-env.com

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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**

2018 Local Implementation Grant concluded

Carriage Hill Stormwater Retrofit Project

Project Summary

This stormwater retrofit project on Carriage Hill in the town of Lake George improved erosion issues and now captures and treats stormwater. The Lake George Association (LGA) worked with the Warren County Soil and Water Conservation District (WCSWCD) and the town of Lake George Planning Office to coordinate on this project and on the design.

Stormwater flowing down Carriage Hill Road would either flow into a paved swale running along the road and flow into a 20' stormwater easement channel between two adjacent properties or it would flow down the road itself after it overwhelmed a catch basin up the road, bypassing the swale. Stormwater that bypassed the catch basin and swale would continue downhill and enter a private driveway. The stormwater flowing through the 20' easement and the stormwater leaving the driveway were both causing erosion issues. The stormwater generated from both sites eventually leads to a small stream that runs into Lake George.

This project addressed Goal 1 – "Clean Water" of the most recent version of Opportunities for Action. Specifically, it involved Strategy I.C.3 and reduced nutrient inputs from developed lands targeting stormwater runoff. The project stabilized about a 160' section of a drainage easement, installed 2 - 4' wide x 4' high dry well that capture and infiltrate stormwater and a bio-retention area that will capture and infiltrate stormwater runoff. This resulted in reduced quantity of stormwater and improved quality of runoff that reaches Lake George.

Outputs:

- Stormwater improvements, including dry wells and a bioretention area, and the stabilization of about 160' of drainage.

Outcomes:

- Decreased stormwater runoff to Lake George and subsequently to Lake Champlain

Organization: Lake George Association

Contact Person: Randy Rath

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Phone: 518-668-3558

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Website: www.lakegeorgeassociation.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12511
EPA	0994-002-001
Start Date:	2/22/2018
Close Date:	**8/18/2019**
Grant Amount:	$12,716.00
Non-federal Match:	$10,146.65
Total Amount:	**$22,862.65**

2018 Local Implementation Grant

concluded

Cost-Benefit Analysis of Proposed Actions Needed to Reduce Phosphorus Loads from the Rock River Subwatershed to Missisquoi Bay by 40%

Project Summary

The Rock River subwatershed has among the highest phosphorus and sediment export rates of the Missisquoi Bay Basin, mainly due to agricultural activity. The projects purpose is to locate critical source areas, identify necessary actions and produce a cost-benefit analysis of scenarios proposed to reduce phosphorus exports in order to promote acceptability and support the adoption of BMPs by the farming community.

NOTE: IRDA has accepted to add the Vermont portion of the Rock River subwatershed to the initial portrait and the resulting reduction scenarios. The cost-benefit analysis will however be completed only for the Québec portion because of socio-economic differences.

Outputs:

- description the Rock River subwatershed's critical source areas of sediment and nutrients to surface waters
- identification of BMPs best adapted to reduce pollution exports
- quantification of potential pollutant reductions resulting from variable scenarios and BMP combinations with a 40% reduction goal
- production of cost-benefit estimates for various scenarios of implementation of BMPs

Outcomes:

- reduction of phosphorus loads from the Rock River subwatershed to Missisquoi Bay.

Organization: OBVBM

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Bedford, QC J0J 1A0

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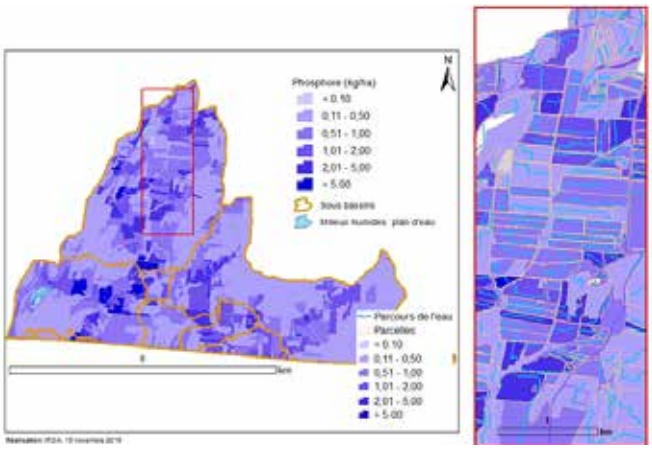
Website: http://www.obvbm.org/



Lake Champlain Basin Program

NEIWPCC Code:	L-2018-002
GLFC	0100-319-002
Start Date:	3/12/2018
Close Date:	**8/18/2019**
Grant Amount:	$20,000.00
Non-federal Match:	$18,000.00
Total Amount:	**$38,000.00**

2019 Local Implementation Grant

in progress

Developing 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. Sediment chokes habitat, releases nutrients and chemicals normally bound in soils, and weakens the river's capacity to manage flood flows. Riparian cover is necessary to prevent erosion, stabilize banks, and create habitat for native species.

Using the US Fish and Wildlife Service's Riparian Restoration Monitoring Protocol, the Ausable River Association (AsRA) will monitor the survival and growth of trees and shrubs planted at two past natural stream restoration sites to assess for erosion and bank instability. AsRA will also plan and plant a test plot 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. Data collected from this project will be used in a multi-year effort to restore equilibrium and habitat diversity to the East Branch of the Ausable River.

Outputs:

- Plant ID, health, survivorship survey report

Outcomes:

- Reduction of stream bank erosion during riparian restoration projects
- Improvement of riparian planting techniques shared across the region

Organization: Ausable River Association (AsRA)

Contact Person: Brendan Wiltse

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Wilmington, NY 12997

Phone: 518-637-6859

E-mail: brendan@ausableriver.org

Website: www.ausableriver.org

Ausable River Association (AsRA) staff and volunteers planting trees at a riparian restoration site on the West Branch Ausable River, 2015. Photo credit: Brendan Wiltse.

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-049
GLFC	0100-323-002
Start Date:	5/6/2019
Close Date:	
Grant Amount:	$12,285.00
Non-federal Match:	$ 1,385.00
Total Amount:	**$13,670.00**

2018 Local Implementation Grant

concluded

Enhancing the Benefits of Cover Crops through Innovative Roller-Crimper Technology

Project Summary

Cover cropping and reduced tillage practices have expanded in the Lake Champlain Basin from hundreds of acres to many thousands of acres over the last five years. This exponential increase creates challenges such as timely spring termination of winter rye cover crops. This often causes farmers to get behind in fieldwork, reduces corn yields, and may deter further expansion of this practice. Through this project UVM Extension demonstrated the roll and crimp technology in 4 fields located in the Hungerford, Carmi, and St. Albans Bay Watersheds. Crimping uses a specialized tool to flatten and terminate cover crops while planting the cash crop. The benefits of this practice include time and fuel savings, reduction in erosion, and surface runoff from farm fields. The biomass mat that is "rolled" down offers protection to the soil surface and adds resiliency to the cropping system. The adoption of this practice has faced challenges due to the lack of understanding about how this technique works and fear of crop yield losses due to the mat being present in the field. UVM Extension hosted 4 outreach events that were attended by 548 stakeholders. This grant demonstrated that even though the tool was used in a wide range of cropping situations, in no instance did the implementation of the technique result in crop failure. In one case, it resulted in lower yields possibly due to other extenuating circumstances such as drought during the 2018 growing season. One farmer purchased a roll and crimp tool.

Outputs:

- Demonstrations and analysis of roller-crimper technology increasing demand. implementation on 500 acres in 2019 expected.
- production of a YouTube video and a fact sheet about the benefits and challenges of roller crimping.

Outcomes:

- reducing risk of nutrient loss through erosion and surface runoff from fields in the Champlain Valley

Organization: UVM Extension

Contact Person: Heather Darby

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St Albans, VT 05478

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E-mail: heather.darby@uvm.edu

Website: uvm.edu/extension/cropsoil

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-004
EPA	0994-003-001
Start Date:	6/29/2018
Close Date:	**7/16/2019**
Grant Amount:	$23,381.00
Non-federal Match:	0.00
Total Amount:	**$23,381.00**

2018 Local Implementation Grant concluded

Franklin Watershed Committee Pollution Prevention and Habitat Conservation

Project Summary

Analysis, reporting and public outreach of stream water quality data in the Lake Carmi watershed

The Franklin Watershed Committee has been sampling tributaries to Lake Carmi through the LaRosa monitoring program at the Vermont DEC for over ten years. This sampling represents 9 streams and 19 sites. However, this data had remained largely unanalysed until grant support provided the means for data analysis and reporting. This analysis has helped identify several key projects throughout the watershed.

For this project Franklin Watershed Committee contracted Fritz Gerhardt to analyse the 2018 LaRosa stream water quality data and compare it to his 2017 analysis of 2008-2017 data done through Vermont DEC. This identified any changes to spatial patterns in water quality, and updated recommendations for monitoring and assessment. Once complete the Committee generated a public friendly version to highlight the results to the community. The report supports the 2018 data indicates water quality improvements.

Outputs:

- scientific report
- public outreach summary on water quality results

Outcomes:

- improved water quality and phosphorus reduction in the Lake Carmi watershed
- Increased public understanding of the Lake Carmi watershed's water quality

Organization: Franklin Watershed Committee

Contact Person: Emily Porter-Goff

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Franklin, Vermont 05457

Phone: 802-448-0554

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Website: www.franklinwatershed.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12514
GLFC	0100-319-002
Start Date:	2/26/2018
Close Date:	**6/3/2019**
Grant Amount:	$5,264.00
Non-federal Match:	0.00
Total Amount:	**$5,264.00**

2018 Local Implementation Grant

concluded

Great Chazy-Saranac Watershed Culvert Assessment

Project Summary

This project involved the assessment of road-stream crossings in the Great Chazy-Saranac Watershed. This watershed covers portions of three municipalities including the towns of Brighton, Franklin and Harrietstown. The goal of this project was to identify the areas throughout the watershed that are having an impact on the on aquatic organism habitat and passage. Road-stream crossing assessments were conducted and a report was generated to identify bridges and culverts that are problematic from an aquatic connectivity, aquatic habitat and stream bank stability perspective. This information was uploaded to the NAACC Database and summarized in a report with pictures and copies of the NAACC analysis and provided to the municipalities for future repair and replacement.

Outputs:

- assessment of approximately 134 road-stream crossings in the Great Chazy-Saranac watershed
- identification of the areas throughout the watershed that are having an impact on the on aquatic organism habitat and passage and stream bank stability
- identification of culverts in need of replacement

Outcomes:

- improve aquatic passage throughout the watershed
- implementation of BMPs
- reduction of pollution and sedimentation

Organization: Franklin County SWCD

Contact Person: Kristin Ballou

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E-mail: kballou@fcswcd.org

Website: www.fcswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12507
GLFC	0100-319-002
Start Date:	2/5/2018
Close Date:	**3/13/2019**
Grant Amount:	$14,460.00
Non-federal Match:	**$** 2,261.50
Total Amount:	**$16,721.50**

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

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Swanton, VT 05488

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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**

2016 Local Implementation Grant

concluded

Green Stormwater Infrastructure in the Moon and Tenney Brook Watersheds

Project Summary

The Rutland Natural Resources Conservation District, in collaboration with the Lake Champlain Basin Program and the City of Rutland Public Schools district, and using the consulting services of Watershed Consulting Associates, LLC (WCA), designed stormwater Best Management Practices (BMPs) for the Rutland High School and Stafford Technical Center student parking lot. The need for these measures is part of the overall effort to preserve water quality in the Moon and Tenney Brook/East Creek watersheds. These watersheds have been identified as having issues related to sedimentation, bacterial pollution, temperature, and flow-based impacts due in part to stormwater runoff from developed surfaces.

Outputs:

- Conceptual designs for stormwater reduction BMP

Outcomes:

- Reduction of stormwater volume and pollution in the Moon and Tenney Brook watersheds, student involvement and a demonstration of Rutland Public School's commitment to innovation.
- Decreased sediment and nutrient runoff into the Moon and Tenney Brook.

Organization: Rutland NRCD

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Rutland, VT 05701

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

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-020
EPA	0993-003-001
Start Date:	4/19/2017
Close Date:	**7/11/2018**
Grant Amount:	$16,875.00
Non-federal Match:	
Total Amount:	**$16,875.00**

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

This demonstration project will remove sections of asphalt from a municipal parking lot and replace it with precast pervious concrete to reduce runoff and treat stormwater. The grant will pay for the materials (precast concrete, fabric, stone) and the construction of each site. Cash match from the LGA will go toward additional materials and labor, while in-kind match will come from the Village of Lake George DPW for trucking/hauling material. The outcomes of this project will be reduced runoff and phosphorus load reaching Lake George and the proof of concept for a new type of porous product. The porous concrete will be maintained by the Village of Lake George's regenerative vacuum truck designed specifically to maintain porous roadway and parking lots.

Outputs:

- a demonstration site of approximately 650 square precast pervious concrete

Outcomes:

- reduced runoff and phosphorus load reaching 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

Pervious concrete sidewalk section installed in Glens Falls in 2018

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-040
EPA	0995-002-001
Start Date	5/6/2019
Close Date:	
Grant Amount:	$18,446.00
Non-federal Match:	$ 5,280.00
Total Amount:	**$23,726.00**

2019 Local Implementation Grant

in progress

Missisquoi River's Highgate Falls Portage Trail Stormwater Management Project

Project Summary

This is a stormwater management, river access, and pedestrian trail improvement project along a walking trail and canoe carry adjacent to the Missisquoi River in Highgate, Vermont. With project partners, we have created a plan to address erosion, reduce stormwater runoff, and improve trail conditions. Work will be implemented through a combination of youth crew, town highway department, and volunteer labor.

Outputs:

- includes the installation of gabion matts
- stone and grass lined ditching
- replacement of a failed culvert
- stabilization of headcuts and scour zones
- trail crowning and hardening.

Outcomes:

- reduction of erosion and stormwater runoff

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

Failed culvert at site, one of several projects to be addressed

Lake Champlain Basin Program

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

2018 Local Implementation Grant

concluded

Montpelier Chestnut Hill Stormwater Mitigation Design

Project Summary

Stormwater runoff in the Chestnut Hill area of Montpelier is responsible for significant, ongoing erosion above and below an undersized culvert under Chestnut Hill Road. What was once a shallow intermittent stream channel has become a large gully, and bank failure along the edges of the gully is a source of sediment impacting downstream Blanchard Brook, a tributary of the Winooski River. Other impacts include the loss of property due to slumping into the stream channel, and debris accumulation in the culvert resulting in stormwater overtopping the road. The Montpelier Chestnut Hill Stormwater Mitigation Design project sought to develop final designs for stormwater mitigation practices to reduce the sediment load to Blanchard Brook and protect private property and municipal infrastructure.

This grant was awarded to develop stormwater mitigation designs for the Chestnut Hill neighborhood. The City partnered with the Friends of the Winooski River, who managed the project and provided landowner outreach. Stone Environmental was selected as a consultant to assess the drainage, develop a preliminary list of recommended green stormwater management practices, and help present alternatives to residents and municipal officials.

Outputs:

- drainage assessment
- list of recommended stormwater management practices
- designs for five stormwater BMPs

Outcomes:

- future reduction of phosphorus and sediment inputs to Lake Champlain
- education and outreach for Montpelier residents

Organization:	City of Montpelier
Contact Person:	Shawn White
Mailing Address:	P.O. Box 777 Montpelier, VT 05601
Phone:	802-371-8988
E-mail:	tmcardle@montpelier-vt.org
Website:	www.winooskiriver.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12599
EPA	0994-002-001
Start Date:	6/27/2018
Close Date:	**9/9/2019**
Grant Amount:	$18,007.00
Non-federal Match:	$ 2,531.00
Total Amount:	**$20,538.00**

2018 Local Implementation Grant

in progress

Montpelier High School Green Stormwater Design

Project Summary

This project provides funding for design of three green stormwater solutions on the campus of Montpelier High School, in order to reduce phosphorus loading to Lake Champlain through the Winooski River. It will engage high school students in design work that meshes with a real project. The facilities directors for the school and VSECU will talk to the class about the goals and challenges of the projects.

Outputs:

- stormwater master plan for the High School campus, including three complete engineered designs, developed with student involvement

Outcomes:

- decrease in annual sediment and phosphorus loads
- youth engagement in stewardship opportunities

Organization: Friends of the Winoosk Riveri

Contact Person: Michele Braun

Mailing Address: PO Box 777
Montpelier, VT 05602

Phone: 802-279-3771

E-mail: michele@winooskiriver.org

Website: winooskiriver.org

A view of the "mud lot"

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-003
EPA	0994-002-001
Start Date:	5/17/2018
Close Date:	
Grant Amount:	$24,424.00
Non-federal Match:	$ 300.00
Total Amount:	**$24,724.00**

2019 Local Implementation Grant

in progress

Montpelier Riparian Area Restoration: Invasive Removal and Erosion Prevention

Project Summary

In coordination with an AmeriCorps NCCC team, Montpelier Parks and Trees will work to restore riparian habitat and improve water quality in the Upper-Winooski watershed. Invasive species will be removed, native tree species will be planted, and trails will be maintained to prevent erosion and sediment from reaching the Winooski River.

Outputs:

- data on the amount of land from which invasive species have been removed
- area of river corridor restored
- number of trees planted and length of trails improved

Outcomes:

- improved riparian habitat
- lower sediment load erosion
- improved 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

In spring of 2017, NCCC AmeriCorps volunteers use the tractor's skidder to pull out large invasive shrub honeysuckle and multiflora rose within the floodplain of the North Branch River in North Branch Park.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-070
EPA	0994-002-001
Start Date	5/21/2019
Close Date:	
Grant Amount:	$15,021.00
Non-federal Match:	$40,139.00
Total Amount:	**$55,160.00**

2015 Local Implementation Grant concluded

Phosphorus Loading in the Flower Brook Subwatershed

Project Summary

The Poultney Mettowee Natural Resources Conservation District (PMNRCD) and Doyle Ecological Services (DES) partnered to create a landscape-scale assessment of the Flower Brook Watershed. The aim of the assessment was to identify conservation and restoration projects to attenuate phosphorus sources and to conserve phosphorus sinks within a geomorphically unstable, headwater subwatershed of southern Lake Champlain. The study was largely focused on how forested and non-forested lands potentially contribute and/or retain phosphorus on the landscape.

The project had four main steps: 1) conduct a landscape assessment using a GIS (ArcMAP 10.x); 2) field truth the digital maps; 3) identify and prioritize restoration and conservation projects; and 4) implement at least one of the identified projects. The GIS analysis involved assembling spatial data layers and classifying and combining layers to generate models of Phosphorus sources and sinks to identify conservation and restoration priorities within the watershed. The landscape assessment was completed in tandem with other additional assessments, adding to the inventory of projects in the watershed designed to attenuate phosphorus and conserve or enhance phosphorus sinks.

Outputs:

- A landscape and ecosystem survey and mapping assessment
- nutrient monitoring
- implementation of phosphorus reducing projects
- Critical source area analysis
- Develop list of high-priority habitats in need of protection.
- Complete an ecosystem assessment of a sub-watershed in the Lake Champlain Basin.

Outcomes:

- Reduced phosphorus loading and erosion in the Mettowee watershed.

Organization: Poultney Mettowee NRCD

Contact Person: Hilary Solomon

Mailing Address: PO Box 209, Poultney, VT 05764

Phone: 802 287-8339

E-mail: pmnrcd@gmail.com

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

Lake Champlain Basin Program

NEIWPCC Code:	L-2016-017
GLFC	0100-310-027
Start Date:	2/1/2016
Close Date:	**3/14/2019**
Grant Amount:	$20,000.00
Non-federal Match:	$ 4,127.00
Total Amount:	**$24,127.00**

2018 Local Implementation Grant concluded

Pollution Control and Preserving Water Quality by Promoting the Replacement of Outdated Septic Systems

Project Summary

The purpose of this project is to prevent pollution and improve water quality by encouraging residents to use best practices to limit pollution particularly from septic seepage. During the course of 2018, algal samples were collected and photographed during annual snorkel swims and assessed using the Palmer Pollution Index (PPI). The Palmer Pollution Index or the Palmer algal genus index is used to rate the organic pollution of a water body. The results were examined and compared to previous years. The current property information collected by the Town of Queensbury for Assembly Point was compiled in order to determine the current status of septic systems.

Outputs:

- algal survey data and maps
- test results and spreadheet inventory
- underwater photos
- spreadsheet inventory of the Town of Queensbury septic system information
- brochure of Assembly Point septic rules

Outcomes:

- better understanding of threats to water quality and one's personal responsibility for curbing pollution
- direct citizen involvement
- increased knowledge of Lake George water quality
- public outreach to lakeside community

Organization: Assembly Point WQ Coalition

Contact Person: Beverly Pozzi

Mailing Address: 66 Bay Parkway
Lake George, NY 12845

Phone: 518-656-9440

E-mail: bjpozzi@hotmail.com

Website: www.assemblypt.com

Photo taken between 2014-17 by a professional diver swimming with APWQC residents showing what the bottom of the lake around Assembly Point increasingly looks like due to septic, fertilizer and stormwater runoff.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12516
GLFC	0100-319-002
Start Date	2/27/2018
Close Date:	**5/9/2019**
Grant Amount:	$ 7,240.00
Non-federal Match:	$ 3,687.35
Total Amount:	**$10,937.35**

2016 Local Implementation Grant concluded

Protecting Northern Lake Champlain through Farmer-to-Farmer Implementation of Agricultural Practices

Project Summary

The Franklin and Grand Isle Farmer's Watershed Alliance (FWA) focuses on farmer outreach and implementation of water quality projects on farms in critical source areas of Franklin and Grand Isle Counties. This project continued the implementation and demonstration of one particular agricultural conservation practice – grassed waterways. The FWA successfully worked with three member farmers to plan, design, and aid in the installation of grassed waterway projects on their fields. The organization created both physical and online outreach materials using content from the three installations and presented about the projects at multiple farmer meetings during winter of 2018/2019. The outreach emphasized the need and benefits to these types of conservation practices on farms, especially in critical source areas. The outreach included before and after photos of the three sites with descriptions of the projects on a poster, informational fliers, blog/Facebook posts, and Microsoft PowerPoint slides.

This project has allowed the FWA to assist our member farmers with on-farm improvements and use those accomplishments to teach other farmers about these practices. The outreach created through these grant funds reached our current target audience, as well as a more broad audience at events like the FNLC Annual Meeting, Breakfast on the Farm, and the Vermont Farm Show. We hope to continue to assist in advising, educating, and installing agricultural farming practices with our member farmers, utilizing farmer-to-farmer organization and implementation. As well as expanding our audience base to more of the non-ag community.

Outputs:

- 3 on-farm grassed waterway installations

Outcomes:

- decreased phosphorus and sediment pollution to Lake Champlain
- increased knowledge of water quality BMPs by farmers and the public

Organization: Farmer's Watershed Alliance

Contact Person: Catherine Davidson

Mailing Address: PO Box 298
St. Albans, VT 05478

Phone: 802-752-5156

E-mail: farmerswatershedallianceNW@gmail.com

Website: http://farmerswatershedalliance.org/

NEIWPCC Code:	L-2017-032
EPA	0993-003-001
Start Date:	4/21/2017
Close Date:	**5/9/2019**
Grant Amount:	$20,000.00
Non-federal Match:	$ 3,500.00
Total Amount:	**$23,500.00**

2019 Local Implementation Grant

in progress

Quaker Road MS4 Stormwater and Habitat Improvement Project

Project Summary

Stormwater from Route 9 in Queensbury outlets to a roadside ditch on Quaker Road in this heavily urbanized section of the town. The runoff is conveyed by roadside drainage swale along Quaker Road to Cemetery Brook AA (T), a tributary to Halfway Brook AA (T). This project proposes replacing two large failing and poorly placed culverts that allow access to the Pine View Cemetery and improve habitat while reducing routine maintenance at the cemetery. The project will remove the existing culverts, embed the new culverts, reshape and stabilize failing sections of the existing swale and install a 1,000 square foot pollinator garden in an effort to reduce the urban impacts on this MS4 designated section of the Town of Queensbury.

Outputs:

- replacement of two degraded culverts
- construction of a 1,000 – 1,250 sq foot pollinator garden within the Pine View Cemetery

Outcomes:

- improvement in water quality to a major tributary of Halfway Brook
- reduce sediment and nutrient loading from both stormwater and ditch erosion
- expansion of wildlife habitat in this MS4 area.

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:	
Grant Amount:	$19,995.00
Non-federal Match:	$ 2,200.00
Total Amount:	**$22,195.00**

2018 Local Implementation Grant concluded

Quarry Dam Removal Project

Project Summary

The Quarry Dam was a concrete gravity low head dam and was rated as a low hazard dam. The original purposes of building the dam are uncertain, but it was probably used in ponding water to aid in log drives, used to carry logs to downstream lumber mills. After years of neglect, it served no useful purpose. Removal of Quarry dam immediately provided several benefits. The dam was a significant barrier to upstream fish passage. Fish movements for spawning, as well as accessing winter habitat and summer cool water refugia will be enhanced by its removal.

Removal also improved aquatic habitat upstream of the dam. The upstream channel is generally broad and shallow with a substrate dominated by sand. This is a characteristic of a "filled-in" impoundment and is undesirable for fish and macro invertebrates. Removing the dam will restore historic sediment and flow characteristics, which will result in a deeper thalweg with larger substrates. These changes in stream morphology will aid in restoring a cooler water temperature during the hot summer months. Measurements of water temperature in the West Branch of the Ausable have shown highs that are extremely stressful and possibly even fatal to fish, especially trout. Reduced water temperatures will benefit the immediate upstream area as well as an extended downstream stretch of the river.

Outputs:

- removal of barrier to upstream fish passage
- sediment and silt removal
- publicity campaign

Outcomes:

- improved aquatic/riparian habitat
- enhanced fish movement for spawning, access to winter habitat, and summer cool water refugia
- restoration of historic flow and sediment transport dynamics

Organization: Lake Champlain Chapter Trout Unlimited

Contact Person: William Wellman

Mailing Address: 7 Helen Street
Plattsburgh NY12901

Phone: 518 563 1985

E-mail: wellman1985@gmail.com

Website: https://www.tu.org/connect/groups/node-21

Project site

Lake Champlain Basin Program

NEIWPCC Code:	PO 12504
EPA	0994-002-001
Start Date:	2/4/2018
Close Date:	**10/4/2018**
Grant Amount:	$ 3,925.00
Non-federal Match:	$31,075.00
Total Amount:	**$35,000.00**

2019 Local Implementation Grant

in progress

Rain Garden and Bioretention Practice at VSECU

Project Summary

This project envisions 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:	
Grant Amount:	$14,708.00
Non-federal Match:	$ 1,200.00
Total Amount:	**$15,908.00**

2018 Local Implementation Grant concluded

Reducing Stormwater Runoff and Improving Access to the Lamoille River

Project Summary

North Branch Cascades Trail Stormwater Management (*Worcester, VT*) failed culverts replaced, sediment traps and stone steps installed, cross drainage improvement, suite of other erosion control measures implemented along a section of the former Rt 12 being redeveloped as a walking trail. This trail, situated on a 70 acre parcel recently conserved by the Vermont River Conservancy, is the centerpoint recreational component of a multi-partner conservation effort know as Worcester Woods. The road, which was last used in the 1950s, had overtime developed stormwater issues. Unmanaged run-off from Route 12, along with failed culverts, had created washouts and headcuts. The lack of appropriate road crowning lead to gullies and sedimentation. Work was completed by a Clean Water crew, community volunteers, and professional trail builders in the summer of 2018.

Five Chutes Access (*Georgia, VT)* reduced stormwater run-off and improved access to the Lamoille River by implementing a series of best management practices at a river access trail. This popular river access, on land owned by Green Mountain Power, had never been formerly developed. A poorly graded dirt road and parking area directed stormwater down an access trail used by paddlers and anglers. The combination of steep slopes, water run-off, and user impacts had created a step head cut and a difficult walking surface. Work included the installation of a series of stone steps, the stabilization of a headcut, and the correction of drainage at a parking area. Work was by a Clean Water Crew in the fall of 2018.

Outputs:

- installed culverts, repaired headcuts, and constructed stone access steps

Outcomes:

- decreased stormwater runoff to the Winooski and Lamoille rivers
- increased public access to waterways in the Lake Champlain Basin.

Organization: VT River Conservancy

Contact Person: Noah Pollock

Mailing Address: 29 Main St
Montpelier VT 05602

Phone: 802 540-0319

E-mail: noah@vermontriverconservancy.org

Website: www.vermontriverconservancy.org

Project Sites – Before (Five Chutes, North Branch Cascades Trai

Lake Champlain Basin Program

NEIWPCC Code:	PO 12606
EPA	0994-002-001
Start Date:	7/11/2018
Close Date:	**9/6/2019**
Grant Amount:	$ 9,529.00
Non-federal Match:	$ 7,050.00
Total Amount:	**$16,579.00**

2019 Local Implementation Grant

in progress

Riparian Forest Stewardship and Enhancement

Project Summary

The Intervale Center will complete stewardship and enhancements on 30 acres of riparian forest buffer 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 documented by photographs, and ongoing stewardship plans for sites after the 2019 season. Though the sites will vary, this grant is a continuation of funding we received in 2018 for stewardship.

Outputs:

- maps and stewardship plans for each site
- stewardship plans for sites after the 2019 season

Outcomes:

- riparian restoration, including habitat development, filtration of sediment and nutrients, bank stability, and improving water quality.

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

Lake Champlain Basin Program

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

2018 Local Implementation Grant

concluded

Riparian Forest Stewardship in the Winooski and Missisquoi Watersheds

Project Summary

Lack of riparian vegetation is a significant cause of bank instability, sedimentation, acreage loss, thermal pollution and an overall decline in water quality. The restoration of healthy riparian buffers is an important method for improving water quality because buffers reduce the amount of pollutants entering our waterways and help lower water temperatures. Riparian areas and adjacent lands, such as floodplains, are great investments for conservation work because when these areas are healthy, they help mitigate flooding downstream, create habitat and connectivity for wildlife, including a diversity of aquatic species, stabilize soil, and make the Basin more resilient to flooding.

This investment by the Lake Champlain Basin Program helped ensure the long term success of critical conservation projects. By stewarding such projects, the Center can aid in the achievement of OFA tasks II.B.1 (improve the diversity of native aquatic and riparian species in the Lake Champlain Basin), I.C.1.b (protect and enhance river corridors by restoring and managing riparian corridor habitat and conducting outreach to landowners, etc.), and I.C.1.a (improve bank stability in critical areas of the watershed).

The Center completed work on 27.5 acres of riparian buffer over 12 days. In addition to significantly reducing weed pressure, we removed 500 plastic tree tubes and 50 contractor bags of plastic mats from sites and monitored process to help inform future stewardship planning.

Outputs:

- 27.5 acres of riparian buffer planting

Outcomes:

- Reduced soil erosion and phosphorus loss

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: http://www.intervale.org

Planted trees overtaken by vines.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-001
EPA	994-002-001
Start Date	3/21/2018
Close Date:	**3/8/2019**
Grant Amount:	$21,300.00
Non-federal Match:	
Total Amount:	**$21,300.00**

2019 Local Implementation Grant

in progress

Road Salt Reduction Program

Project Summary

The Town of Keene has identified the need to reduce the use of salt and to accurately measure and control the amount of salt applied on the roads in order to have consistency among operators across the fleet. The recommendation based on current research is to purchase and install material application controllers, such as the Dickey-john Control Point System, for 1 plow truck in the town's fleet. Quarterly reports will include data and be submitted on time culminating in a final project report. Reporting will include the analysis of the data to assess application rates of road salt and tailor these rates based on level of road surface, road grades, severity of the storm and proximity to water bodies and runoff systems. Use of material application controllers will allow for even distribution, unified spreading for more effective coverage promoting better melting capacity with less product applied and consistency among operators. The highway crew will understand that we can reduce road salt use without sacrificing their mission of safety for motorists.

Outputs:

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

Outcomes:

- reduction of raod 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:	
Grant Amount:	$7,316.00
Non-federal Match:	$1,193.00
Total Amount:	**$8,509.00**

2016 Local Implementation Grant concluded

Shelburne Community School Stormwater Retention

Project Summary

Lewis Creek Association used these funds to finish the design and implementation of a rain garden on the Shelburne Central School campus in Shelburne, Vermont.

Outputs:

- completed engineered design
- construction of the bioretention area in the entrance island on campus

Outcomes:

- Reduction of stormwater runoff in the Lake Champlain Basin and education and outreach about non-point nutrient reduction.
- A high public visibility rain garden that will reduce pollutant inputs into McCabe's Brook and Shelburne Bay, and increased student and community understanding of how and where to address non-point stormwater-related pollution such as phosphorus in the LaPlatte River watershed.

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-2017-045
EPA	993-003-001
Start Date:	5/10/2017
Close Date:	**7/26/2019**
Grant Amount:	$19,255.00
Non-federal Match:	$ 6,046.00
Total Amount:	**$25,301.00**

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:	
Total Amount:	

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**

2018 Local Implementation Grant concluded

Trees for Streams 2018: Riparian Restoration on Muddy Brook, Allen Brook, and LaPlatte River within the Lake Champlain Watershed

Project Summary

With help from partner organizations and the local community, the WNRCD planted forested riparian buffers along three impaired waterways in Chittenden County within the Lake Champlain Watershed: Muddy Brook, Allen Brook, and LaPlatte River. Five sites were identified for this 5.25 acre riparian restoration project. WNRCD will work closely with partners and municipal staff to coordinate two community planting events at the WVPD Muddy Brook site and Allen Brook site on Friday May, 4th (VT Arbor Day).

Outputs:

- Signed landowner agreements, with a 10 year minimum O&M plan
- Planting plans
- before and after planting photo documentation.
- 2 community events

Outcomes:

- reduction of sediment and nutrient runoff into impaired waterways
- restoration of aquatic and terrestrial wildlife usage of planted buffer areas
- long-term (a minimum of 10 years) river corridor protection along these riparian areas
- community engagement and raised awareness of the environmental benefit of this work.

Organization:	Winooski NRCD
Contact Person:	Kristin Balschunat
Mailing Address:	617 Comstock Road , Suite 1 Berlin, VT 05602
Phone:	802-288-8155 ext 104
E-mail:	kristen@winooskinrcd.org
Website:	www.winooskinrcd.org

VYCC crew

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-005
EPA	0993-003-001
Start Date	4/27/2018
Close Date:	**1/11/2019**
Grant Amount:	$20,625.00
Non-federal Match:	$19,704.50
Total Amount:	**$40,329.50**

2019 Local Implementation Grant

in progress

Trout and Missisquoi River Riparian Buffers

Project Summary

The MRBA has been planting riparian buffers for over 20 years, and is responsible for planting over 27,000 trees and shrubs along our streams and rivers. MRBA has partnered with municipal and private landowners, receiving funding for these projects from private, local, State, and Federal sources. MRBA's staff, Board, and network of community volunteers all play important roles in the many successful plantings The organization has done along riparian areas in the watershed.

For this project, landowners along the two largest waterways – the Missisquoi and the Trout Rivers – are interested in improving planting projects that have already been implemented through previous work with the MRBA and other conservation partners. Both of these sites will be more successful with additional plantings and we look forward to partnering with the landowners to achieve better riparian buffers along the rivers. Approximately 1 acre of planting remains at each location, and MRBA will work with the landowners, a Technical Advisor, local volunteers and school groups to ensure that successful buffers are installed to improve bank stabilization, reduce runoff and erosion, combat invasive species, and help natural communities thrive.

Outputs:

- 2 acres of planting

Outcomes:

- improved bank stability and water quality
- reduce runoff and erosion
- combat invasive species
- help natural communities thrive

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

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Lake Champlain Basin Program

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

2014 Program Grant

concluded

Agricultural Practice Monitoring and Evaluation in the Vermont Portion of the Lake Champlain Basin

Project Summary

Vermont farmers have shown strong interest in implementing BMPs such as conservation tillage, manure and nutrient management, and cover crops over the past decades. Although many producers attribute significant agronomic and water quality benefits to these management practices, the effectiveness of most of these practices in reducing P and sediment losses from agricultural land is not well documented. This project monitored runoff from two study watersheds in a cornfield in Charlotte, Vermont between October 1, 2015 and April 22, 2019 to evaluate the effects of construction in September 2017 of a grassed waterway in one of the watersheds. Flow rate and water quality data were obtained from 51 runoff events prior to construction of the grassed waterway and from 41 events following construction.

For each runoff event, data were aggregated to calculate total flow and runoff depth, mean concentrations of several fractions of phosphorus and nitrogen as well as chloride and total suspended solids, and total mass loads for the same monitored constituents. Total mass loads of constituents transported from the study watersheds during each runoff event were divided by the areas of the watersheds to calculate areal loads (mass per unit area) to facilitate comparison with data from other Vermont fields.

Outputs:

- Monitoring data from the BMP practice watershed and control watershed
- Final report detailing findings of the study

Outcomes:

- Improved understanding of BMP effectiveness for agricultural fields in the Lake Champlain Basin

Organization: Stone Environmental, Inc

Contact Person: David Braun

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

Lake Champlain Basin Program

NEIWPCC Code: L-2014-062
GLFC 0100-310-007 and 0100-311
Start Date: 7/1/2014
Close Date: **9/6/2019**
Grant Amount: $218,531.00
Non-federal Match:
Total Amount: **$218,531.00**

2015 Program Grant

concluded

Assessment of Tile Drainage System Impacts to Lake Champlain and Phosphorus Loads in Tile Drainage Water in the Jewett Brook Watershed of St. Albans Bay

Project Summary

Subsurface (tile) drainage is an essential water management practice on many agricultural fields in Vermont, allowing timely equipment access, reduced soil compaction, and increased crop yields in fields otherwise too wet to efficiently farm. In Vermont and across the Lake Champlain Basin, little is known about the potential water quality impacts of agricultural tile drainage systems. To address this knowledge gap, the Project Team monitored representative tile drainage systems in the Jewett Brook watershed (JBW), a tributary to St. Albans Bay of Lake Champlain, estimated P loading from these tile drainage systems, and evaluated the significance of this loading to the overall P load from the JBW.

Study objectives were:
(1) synthesize the current state of knowledge concerning the effects of subsurface drainage on hydrology, reported P concentrations and loads in subsurface drainage water, and major factors influencing the loss of P through subsurface drainage, derived from published scientific research;
(2) measure total and dissolved P concentrations and discharge and calculate P loads from representative tile drainage systems in the JBW;
(3) evaluate associations among P concentration and loading and discharge with agronomic variables in the study fields; and
(4) estimate total and dissolved P loading from the JBW and evaluate the proportion of these loadings contributed by tile drainage systems.

Outputs:

- A comprehensive literature review of relevant tile drain research
- Tile drain monitoring data and estimated tile drain phosphorus loads
- Final report detailing findings of the study

Outcomes:

- Enhance the knowledge of tile drainage effects on water quality and soil health within the LCB.
- Improved understanding of the effect of agricultural tile drains on Lake Champlain water quality

Organization: Stone Environmental, Inc

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Lake Champlain Basin Program

NEIWPCC Code: L-2016-060
EPA/GLFC 0100-310-002/992-003-009
Start Date: 6/1/2016
Close Date: **8/30/2019**
Grant Amount: $212,900.00
Non-federal Match:
Total Amount: **$212,900.00**

2019 Program Grant

in progress

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:

- training workshops conducted at three locations spread across the Basin to educate targeted users and stakeholders on the use of Farm-PREP
- a basin-wide tool that provides consistent and credible quantification of reductions in farm-scale P loss based on identification of field and farm level practices that meet desired water quality targets

Outcomes:

- more strategic approach to improving the water quality of Lake Champlain.
- phosphorus reduction

Organization: Stone Environmental, Inc

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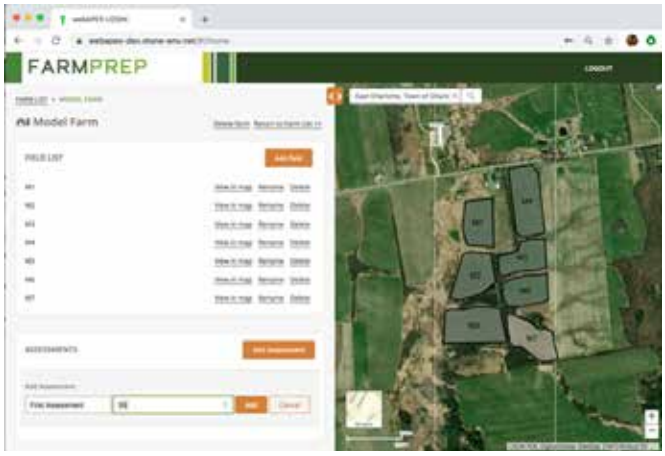
Website: www.stone-env.com



Lake Champlain Basin Program

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

2018 Program Grant

concluded

Cedar Valley Farm Farmstead Milk House Waste BMP

Project Summary

Cedar Valley Farms was a first generation dairy farm owned and operated by the Trombley family. They operated with a comprehensive nutrient management plan that lists the highest priority of environmental concern as the milk house waste disposal. The project was to assist the Trombley's in implementing a properly designed and sited milk house waste storage system. Waste was to be collected in a buried concrete tank, and then pumped onto the solid manure once it is loaded in a spreader. From there the milk house waste was to be field applied as recommended. Unfortunately, the Trombley family opted to stop farming, and the project was not completed.

Outputs:

- An NRCS engineer developed an approved design for the milk house waste BMP

Outcomes:

- N/A

Organization:	Clinton County SWCD
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Lake Champlain Basin Program

NEIWPCC Code:	PO 12604
EPA	0993-003-004
Start Date:	7/10/2018
Close Date:	**11/19/2018**
Grant Amount:	$555.00
Non-federal Match:	
Total Amount:	**$555.00**

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

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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**

2018 Program Grant

concluded

Clinton County Cover Crop Implementation

Project Summary

This project supported the implementation of practices that reduce phosphorus loading to Lake Champlain from small farms in the New York portion of the Basin. Cover crops and no-till planting, both practices that promote soil health, reduce soil erosion and help prevent phosphorus losses were implemented on 219 acres on 7 farms. The 2015 AEM Strategic plan identified the Great Chazy River, Little Chazy River, and Direct –To-Lake Tributaries Feeding Lake Champlain Main – North as our priority watershed. The project was implemented at farms around Clinton County, more specifically located in the following watersheds: 041504081604, 041504081507, 041504081505, 041504081506, 041504081603, and 041504081602. These HUC12s include Direct to Lake Champlain, Great Chazy River, Little Chazy River and associated sub-watershed(s) of Lake Champlain, all of which contribute to the Isle La Motte segment the lake.

Outputs:

- 219 acres of cover cropping and no-till planting on seven farms in the New York portion of the Lake Champlain watershed
- use of no-till drill at no charge to the farmer

Outcomes:

- Reduced soil erosion and phosphorus loss
- reducing nonpoint source phosphorus load that is being generated by agricultural runoff from developed lands in the Basin
- provide cost-share support to farmers for BMP projects in critical sub-watershed

Organization: Clinton County SWCD

Contact Person: Peter Hagar

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Plattsburgh, NY 12901

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Website: http://clintoncountyswcd.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12605
EPA	993-003-004
Start Date:	7/10/2018
Close Date:	**3/8/2019**
Grant Amount:	$10,606.00
Non-federal Match:	
Total Amount:	**$10,606.00**

2018 Program Grant

concluded

Cyanobacteria Monitoring Program 2018

Project Summary

This program covered the Lake Champlain Committee's (LCC) portion of the on-going Lake Champlain cyanobacteria monitoring program for the period between April, 2018 and December 31, 2018, and focused on program development and revisions, recruitment, training, and oversight of volunteer monitors. LCC refined its cyanobacteria monitoring tools, coordinated with partners on a 2018 monitoring schedule and program, and recruited, coordinated, trained, oversaw and supported volunteers, as well as provided quality control of monitor data entered to the Vermont Department of Health database. All aspects of LCC's volunteer monitoring program were coordinated with and supplement monitoring conducted by the Vermont Department of Environmental Conservation (VT DEC) and the Vermont Department of Health (VDH). LCC also coordinated 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

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E-mail: lorif@lakechamplaincommittee.org

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

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-007
EPA	0994-002-001
Start Date:	6/26/2018
Close Date:	**5/17/2019**
Grant Amount:	$60,000.00
Non-federal Match:	
Total Amount:	**$60,000.00**

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

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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**

2018 Program Grant

concluded

Essex County Rotational Grazing and Cover Crop Project

Project Summary

The purpose of this project was to promote rotational grazing and cover crop use in the Lake Champlain Basin. Farms were assisted in fence purchases and installations in order to implement rotational grazing as a regular best management practice on farms that were currently grazing.

Outputs:

- 68 acres of cover crops planted at 5 farms
- 7000 feet of fencing installed for rotational grazing
- at 7 farms

Outcomes:

- reduction of erosion and nutrient runoff into nearby streams and waterbodies
- reducded nutrient loading to LAke Champlain and i ts tributaries
- encourage new and continued implementation of this practice.

Organization: Essex County SWCD

Contact Person: Alice Halloran

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Westport, NY 12993

Phone: (518) 962-8225

E-mail: ahalloran@westelcom.com

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

Lake Champlain Basin Program

NEIWPCC Code:	PO 12620
EPA	993-003-004
Start Date:	8/3//2018
Close Date:	**7/11/2019**
Grant Amount:	$20,000.00
Non-federal Match:	
Total Amount:	**$20,000.00**

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

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

Lake Champlain Basin Program

NEIWPCC Code:	LS-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**

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

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St. Albans, VT 05478

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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

2019 Program Grant

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

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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**

2019 Program Grant

in progress

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

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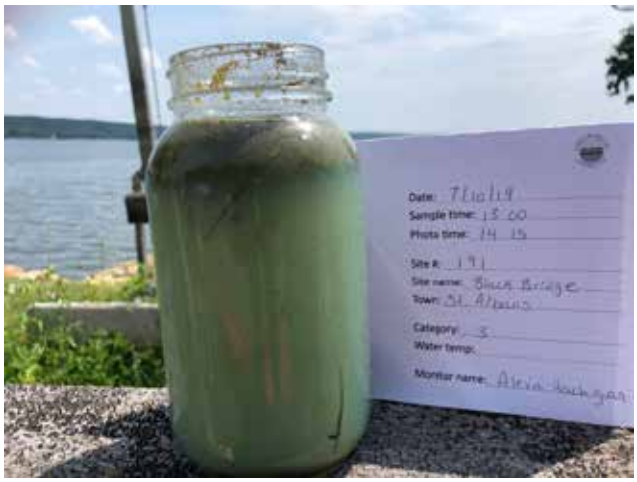
E-mail: lorif@lakechamplaincommittee.org

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



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

Lake Champlain Basin Program

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

2014 Program Grant

concluded

Little Chazy Tributary Gage

Project Summary

This project provided river discharge data from the Little Chazy River for resource managers to calculate nutrient loading rates into Lake Champlain from this tributary. The USGS will operate the Little Chazy River streamgage (Station # 04271815), publish the information on-line in near real-time, and make the data available for down-load. Further information regarding Intended Uses of Data can be found in the relevant section of the QAPP.

Outputs:

- Real-time accurate discharge date for the Chazy River that will be publicly available on the USGS website.

Outcomes:

- This discharge date will inform estimates of phosphorus loading to Lake Champlain.

Organization: USGS

Contact Person: Gerard Butch

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Troy, NY 12180

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Website: https://waterdata.usgs.gov/

Lake Champlain Basin Program

NEIWPCC Code: L-2015-063
GLFC 0100-306-021/0100-310-011/0100-323-002
Start Date: 10/1/2015
Close Date: **10/25/2019**
Grant Amount: $49,950.00
Non-federal Match:
Total Amount: **$49,950.00**

2016 Program Grant

concluded

North Country Creamery Grazing Improvement Project

Project Summary

The North Country Creamery dairy farm is striving to serve the community as a model of productive, healthy and sustainable farming practices. This farm had an established grazing plan but lacked the fencing to implement the plan to its fullest potential. They requested assistance to improve their grazing practices with the use of what is known as intensive rotational grazing. By utilizing a better fencing system, the farm improved forage quantity and quality in the pastures, grazing in response to forage and field conditions, and educated themselves and others by sharing knowledge locally during a farm-based workshop.

The farm purchased maxi-shock fence wire to secure the pasture perimeter from land that is serving as a natural riparian buffer to the Ausable River and allow for multiple cross fencings of the 42 acres of pasture. The farmer hosted a wrap up winter grazing workshop in early January to detail all the ways this fencing upgrade has improved the farms efficiencies, and how the better grazing practices have allowed for them to be self-sufficient. The farmer plotted the grazing on a chart, took forage and manure samples and utilized the information to help three other grazing farms with their own pasture management setups.

Outputs:

- purchased and installed 10,560 ft of moveable fence to assist in rotational grazing patterns to maintain soil health and reduce phosphorus runoff
- workshop to inform other dairy farmers in the area about rotational grazing practices.

Outcomes:

- continue to serve the community as a model of productive, healthy, and sustainable farming practices
- reduced phosphorus loading to Lake Champlain
- dairy farmers are more informed on rotational grazing practices to reduce erosion and phosphorus loading in the future.

Organization:	Essex County SWCD
Contact Person:	Alice Halloran
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Website:	http://www.essexcountyswcd.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12365
EPA	0993-003-004
Start Date:	8/24/2017
Close Date:	**8/2/2018**
Grant Amount:	$3,025.00
Non-federal Match:	
Total Amount:	**$3,025.00**

2016 Program Grant

concluded

North Country School Grazing Improvement Project

Project Summary

The purpose of this project was to improve the existing grazing system at North Country School. The farm grazes multiple species and is working to improve pasture forage and animal containment methods. Their situation is unique in that they house school children who assist with the animals and help in rotating the animals through paddocks.

Some areas of pasture were seeded to improve forage. Fencing supplies were purchased and installed to improve retention of animals, make moving the paddocks easier, and improve the solar fencing setup. A fencing workshop was held in late August on the farm.

The project was successful and the farm manager is pleased with the improvements and what he learned through this process.

Outputs:

- fence installed as part of a multispecies rotational grazing system with solar energizer, batter, and electro-netting.
- held grazing and fencing workshop for other farmers in the region

Outcomes:

- decreased erosion and nutrient loss due to improved grazing and fenced livestock.

Organization: Essex County SWCD

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

Area of reseeded pasture.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12364
EPA	0993-003-004
Start Date:	8/24/2017
Close Date:	**4/15/2019**
Grant Amount:	$3,788.00
Non-federal Match:	
Total Amount:	**$3,788.00**

2016 Program Grant

concluded

Operation and Maintenance of Lake Champlain Meteorological Stations

Project Summary

The goal of this project was to maintain and operate three Lake Champlain meteorological stations - Colchester Reef (CR), Diamond Island (DI) and Burton Island (BI) for the period October, 15, 2017 to December 31, 2018. These stations have produced high quality, near real-time meteorological data for nearly two decades. Meteorological stations at Colchester Reef, Diamond Island and Burton Island were maintained by staff at the University of Vermont, Rubenstein School of Environment and Natural Resources. This included all instrument recalibrations or replacement as needed and/or maintenance, and overall site maintenance.

Outputs:

- high quality, near real-time meteorological data at Colchester Reef, Diamond Island, and Burton Island.

Outcomes:

- high quality meteorological data will provide context for understanding changes and trends in water quality, climate, and ecosystem indicators.

Organization: Forest Ecosystem Monitoring Cooperative

Contact Person: James Duncan

Mailing Address: 217 Wateman Building
85 South Prospect Street
Burlington, VT 05405-0160

Phone: (802) 656-2975

E-mail: james.duncan@uvm.edu

Website: http://uvm.edu

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-055
EPA	**0**994-002-001
Start Date:	10/16/2017
Close Date:	**01/08/2019**
Grant Amount:	$15,055.00
Non-federal Match:	
Total Amount:	**$15,055.00**

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**

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**

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 runoff 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**

2016 Program Grant

concluded

Streamflow monitoring of the West Branch Little River, Stowe, VT

Project Summary

This streamgage location is part of a paired-watershed study on the east slope of Mt. Mansfield, in Stowe, Vermont. Two adjacent watersheds are being studied: Ranch Brook, a 10.5-km2 nearly pristine forested basin, and West Branch Little River, a 12.0 km2 basin containing the entire Mt. Mansfield Ski Resort and bisected by Vermont State Highway 108. The Ranch Brook streamgage is being funded through an interagency agreement between the US Forest Service and USGS. The two basins have similar geology, size, elevation, slope, aspect, soils, and forest cover; the principle difference between them is the sharp contrast in land use. The purpose of this workplan is to provide additional funding for continued data collection at West Branch Little River and to develop a long-term sustainable funding plan for the two gages.

Outputs:

- high quality discharge data for the West Branch Little River

Outcomes:

- This discharge data will help determine the effects of land use change on water quality in the Lake Champlain Basin.
- Improved understanding of the influence of development on headwater hydrology

Organization: USGS

Contact Person: Richard Kiah

Mailing Address: USGS New England Water Science Center
331 Commerce Way
Pembroke, NH 03275

Phone: 603-226-7819

E-mail: rkiah@usgs.gov

Website: https://newengland.water.usgs.gov/

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-002
GLFC	0100-310-011
Start Date:	4/30/2017
Close Date:	**1/2/2019**
Grant Amount:	$30,000.00
Non-federal Match:	
Total Amount:	**$30,000.00**

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**

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.

CBP

Local Grant Highlights

Boat Launch Greeter Program: The Lake Dunmore Fern Lake Assoc. operated a program that inspected 1,369 boats. The program intercepted 13 boats with Eurasian watermilfoil, a nuisance in the lake for decades.

Dam Removal: The Vermont Natural Resources Council led the removal of the Mill Pond dam on Indian Brook in Colchester and restoration of the stream's floodplain, reconnecting 31 miles of aquatic passage.

Riparian Restoration: To meet goals of conservation and natural resource management, Winooski Valley Park District will develop service learning curriculum that focuses on invasive plant management and riparian forest restoration.

River Steward: The Ausable River Association's river steward provided information about aquatic invasive species prevention and surveyed river users about their activities, use, and gear to help refine outreach methods.

Invasive Plant Program: The Warren County SWCD trained municipal staff and community members on invasive plant identification and management and provided toolkits to take home.

AIS River Steward: Ausable River Association provide education and resources that is integral to spread prevention. Angler is using Wader Wash Station before participating in the Ausable Two Fly Challenge.

Riparian Buffers: The Missisquoi River Basin Association worked with the Vermont Youth Conservation Corps to plant 600 trees in North Troy, VT and other locations along the northern reaches of the Missisquoi River.

Backcountry Water Monitors; Adirondack Mountain Club monitors provide AIS spread prevention messages, maintain wader wash stations, and are on-site to educate anglers to help keep AIS from the river.

Watershed Steward Program: Upper Saranac Foundation Steward decontaminating watercraft at Back Bay on Upper Saranac Lake utilizing Upper Saranac Foundation's high pressure, hot water decontamination unit.

Photos: LDFLA, VNRC, Warren County SWCD, MRBA, Ausable River Association (clockwise from top left)

HEALTHY ECOSYSTEMS

Program Highlights

In addition to managing dozens of grants, LCBP staff oversee numerous projects and provide expertise in collaborative efforts to improve ecosystems in the Lake Champlain Basin. In Fiscal Year 2019, LCBP staff:

- Worked at eleven boat launches, **inspecting 11,116 vessels for aquatic invasive species** and surveying boaters about their activities and behavior. More than 8.5% of boats inspected carried invasive species.
- Prevented the potential introduction of invasive *Hydrilla verticillata* by intercepting the plant on a boat being launched into the Lake in South Hero, VT.
- Detected and reported large numbers of **invasive fishhook waterflea** in Shelburne Bay of Lake Champlain.
- Served in **leadership positions** with numerous professional organizations and committees, including Northeast Aquatic Nuisance Species Panel, Northeast Plant Management Society, and the Lake Champlain AIS Rapid Response Task Force.
- Assisted with analysis of fish tissue to understand **recent increases in mercury concentrations** in Lake Champlain fish.
- Facilitated the solicitation and review of projects to improve water quality and ecosystem integrity under the U.S. Army Corps of Engineers **Section 542 Watershed Environmental Assistance Program.**
- Established and coordinated the **New York-Lake Champlain Basin Dam Removal Task Force** to coordinate and focus efforts to increase river habitat connectivity.
- Helped facilitate the renewal of funding agreements to support **water chestnut control work** in Lake Champlain for an additional five years.
- Co-chaired host committee and helped plan and organize the 2019 annual meeting of the **North American Lake Management Society.**

2019 Program Grant

in progress

Adaptive Cormorant Management on Lake Champlain

Project Summary

The purpose of this project is to mitigate damage caused by double-crested cormorants (DCCO), to provide technical assistance and direct management activities on Vermont Fish and Wildlife Departments (VFWD) lands within the Vermont Lake Champlain Basin. To meet 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 WMA's.

Outputs:

- check cormorant activity, island habitat, wildlife diversity, and property damage
- implement 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
- provide technical assistance to 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. This task will
- support control of cormorants on Lake Champlain to supplement efforts already underway by regional wildlife managers

Organization: VT Fish and Wildlife Department

Contact Person: John Gobeille

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Essex Jct., VT 05452

Phone: (802)-879-5696

E-mail: john.gobeille@vermont.gov

Website https://vtfishandwildlife.com/

Lake Champlain Basin Program

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

2018 Local Implementation Grant

closed

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

Project Summary

In 2018, the river steward was active from May 18 through October 8 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:

- River user surveys (n=456) were completed on 51 days between May 18 and October 8, 2018.
- Surveys were conducted at 12 locations along the west branch of the Ausable River, from the ski jumps in Lake Placid to Lake Everest in Wilmington.
- 8 wader wash stations were maintained and over 300 people were engaged by the river steward at the various events.
- The steward also posted several blogs on AsRA's website describing her stewarding activities and promoting invasive species awareness.

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.
- River users informed about AIS spread prevention.

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

Anglers at Monument Falls

Lake Champlain Basin Program

NEIWPCC Code:	PO 12396
EPA	0993-003-001
Start Date:	2/2/2018
Close Date:	**1/18/2019**
Grant Amount:	$15,000.00
Non-federal Match:	$ 2,005.77
Total Amount:	**$17,005.77**

2019 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 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 will continue to deliver critical AIS education and prevention on-stream 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 terrestrial and aquatic invasive species, 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: Brendan Wiltse

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518.637.6859

E-mail: brendan@ausableriver.org

Website: www.ausableriver.org

Angler using Wader Wash Station before participating in the 2016 Ausable Two Fly Challenge.

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-018
GLFC	0100-323-003
Start Date:	6/20/2019
Close Date:	
Grant Amount:	$15,000.00
Non-federal Match:	$ 2,000.00
Total Amount:	**$17,000.00**

2019 Local Implementation Grant

in progress

AIS Spread Prevention Watercraft Inspector Program

Project Summary

This project will help underwrite the full cost of the Adirondack Watershed Institute Stewardship Program's watercraft inspection and AIS monitoring efforts at locations in the headwaters of the Lake Champlain Basin, including Second Pond (Lower Saranac Lake) and Lake Flower, Buck Pond Campground, and Lake Placid. Stewards prevent the spread of AIS by performing careful inspections of all watercraft launched and retrieved at these sites, as well as educating the public in order to increase visitor understanding of AIS issues and spread prevention measures that they can take themselves.

Outputs:

- visitor interactions, watercraft inspections, AIS removal.

Outcomes:

- User awareness and willingness to adhere to NYS AIS transport law.

Organization: Adirondack Watershed Institute Stewardship Program

Contact Person: Dr. Eric Holmlund

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

Phone: 518-327-6341

E-mail: eholmlund@paulsmiths.edu

Website: www.adkwatershed.org/

Lake Champlain Basin Program

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

2018 Local Implementation Grant concluded

Aquatic Invasive Species Spread Prevention Activities of the Rainbow Lake Water Quality Protection Program

Project Summary

This project supported one watershed steward position in the summer field season of 2018, deployed at the Buck Pond State Campground accessing Rainbow Lake from May 26 to August 31. Rainbow Lake is in the headwaters of the Saranac River, part of the Lake Champlain Basin. The waterway is a popular destination for boat visitation and thus at risk for AIS infestation.

Outputs:

- The steward educated a total of 1,794 visitors and inspected a total of 1,105 watercraft.
- The steward detected and removed 0 confirmed AIS from boats and 9 non-invasive organisms.
- 95% of visitors reported taking prior spread prevention measures.

Outcomes:

- AIS spread prevention in the Lake Champlain Basin

Organization: Adirondack Watershed Institute Stewardship Program

Contact Person: Dr. Eric Holmlund

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

Phone: 518-327-6341

E-mail: eholmlund@paulsmiths.edu

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Lake Champlain Basin Program

NEIWPCC Code:	PO 12395
EPA	0993-003-001
Start Date:	2/2/2018
Close Date:	**6/26/2019**
Grant Amount:	$15,000.00
Non-federal Match:	**$** 4,376.00
Total Amount:	**$19,376.00**

2019 Program Grant

in progress

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

Project Summary

This project will conduct 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:

evaluate the potential presence of quagga mussels

Outcomes:

Organization: Stantec Consulting Services Inc.

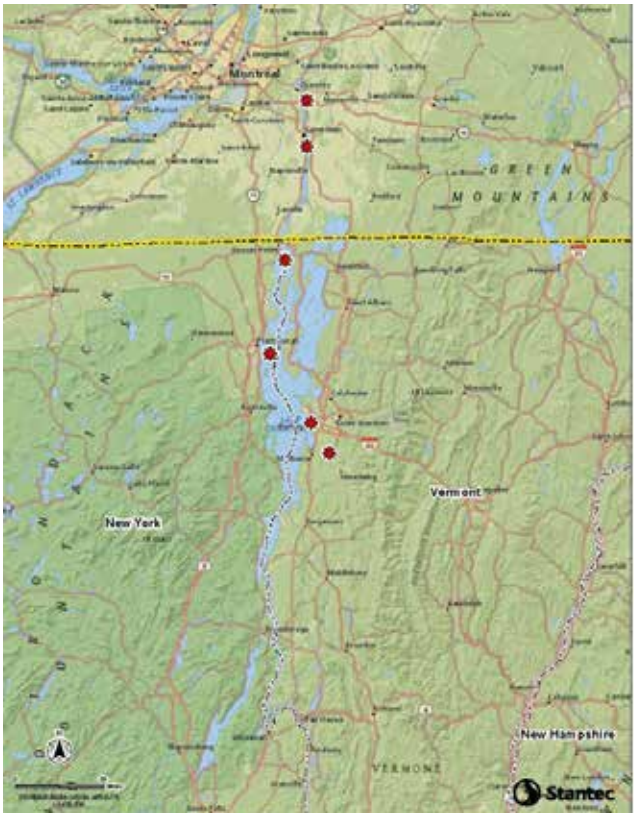
Contact Person: Jake Riley

Mailing Address: 30 Park Drive
Topsham, ME 04086

Phone: 917-575-1283

E-mail: jake.riley@stantec.com

Website www.stantec.com



Proposed sample locations (red asterisk) for obtaining water samples for testing the presence of eDNA of quagga mussels.

Lake Champlain Basin Program

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

2018 Local Implementation Grant concluded

Backcountry Water Monitors, Year Four

Project Summary

The River Steward program began in 2010 and has been successfully disseminating the AIS spread prevention message and collecting survey data for six years. The goal of the program is to educate the public through multiple outlets such as direct streamside education to river users, distributing spread prevention materials to local businesses, and educating at public events. In addition to providing AIS spread prevention education, the river steward maintains wader wash stations, providing an on-site way for anglers to keep AIS out of the river, and observes and reports new terrestrial or aquatic invasive infestations in the watershed.

Outputs:

- River user surveys (n=373) were completed on 55 days between May 19 and October 9, 2017. Surveys were conducted at 13 locations along the west branch of the Ausable River, from the ski jumps in Lake Placid to Lake Everest in Wilmington. 84% of river users surveyed were fly anglers. Other user types include spin anglers, kayakers, and rafters. 44% of fly anglers used felt sole waders, a slight increase from 2015 and 2016 percentages. During the 2015 season, the river steward discovered 13 invasive plant infestations in the Ausable River watershed and in 2016, no new infestations were found. In addition to placing informational brochures on wader wash stations, the river steward distributed them and other information on AIS at farmer's markets, Two Fly Fishing Tournament, ADK Trail Run, ADK Hurricane Mountain Chapter AquaFest, Festival of the Colors, and other local/AsRA events. Over 300 people were engaged by the river steward at the various events.

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/

Wader Wash Station at Monument Falls on the West Branch Ausable River

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-018
GLFC	0100-310-027
Start Date:	4/10/17
Close Date:	**3/30/2018**
Grant Amount:	$13,500.00
Non-federal Match:	$ 2,184.12
Total Amount:	**$15,684.12**

2019 Local Implementation Grant

in progress

Backcountry Water Monitors, Year Five

Project Summary

This project will seek 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 four 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 five 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
- 2 workshops, 4 outings, 15 ponds surveyed Number and location of wader wash stations active along the rivers
- 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:	
Grant Amount:	$11,889.00
Non-federal Match:	$ 3,872.00
Total Amount:	**$15,761.00**

2018 Program Grant

Boat Launch Stewards

Project Summary

The 2017 season was the 11th year of the Lake Champlain Boat Launch Steward Program on Lake Champlain. 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:

- Twelve lake stewards greeted, interviewed, and shared AIS information with boaters at 12 different launch sites around Lake Champlain, including two new sites on Missisquoi Bay, Québec.
- 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

Lake Champlain Basin Program

NEIWPCC Code: N/A
EPA/GLFC
Start Date: 4/1/2018
Close Date:
Grant Amount: $130,200 / $24,800
Non-federal Match:
Total Amount: **$155,000.00**

2018 Local Implementation Grant concluded

Boat Launch Stewards at Lake Carmi

Project Summary

During this past year's boating season, our boat steward Adrian Forbes, spent over 500hrs keeping invasive species out of Lake Carmi. Adrian was covering both the North Beach and the State Park boat launches. Aquatic plants, animals, and other debris were removed from boats entering and leaving Lake Carmi and boaters who were not familiar with invasive species were informed.

Outputs:

- 76 boats were launched and retrieved in the 2018 summer season. Of the boats that were surveyed when launching, 39 were retrieved with aquatic plants attached. Of the boats surveyed only upon retrieval, 19 had aquatic plants attached. Many of these boats were transporting more than one species of aquatic plants, some of which were native such as elodea and eelgrass, while others were aquatic invasive species such as Eurasian watermilfoil and curly-leaf pondweed. By far the most prevalent aquatic plant discovered upon inspection was Eurasian watermilfoil, being present on 52 boats. In addition, there were also 37 cases of eelgrass, 18 cases of elodea, 1 case of northern watermilfoil, 4 cases of curly-leaf pondweed, 6 cases of northern naiad, 1 case of aquatic snail, and 5 instances of unidentifiable aquatic plants.

Outcomes:

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

Organization: Franklin Watershed Committee

Contact Person: Emily Porter-Goff

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Franklin, VT 05457

Phone: 802 448-0554

E-mail: emily.franklinwatershed@gmail.com

Website franklinwatershedcommittee.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12547
EPA	944-002-001
Start Date:	4/18/2018
Close Date:	**3/1/2019**
Grant Amount:	$ 9,888.00
Non-federal Match:	
Total Amount:	**$ 9,888.00**

2019 Local Implementation Grant

in progress

Boat Launch Stewards at Lake Carmi

Project Summary

The purpose of this project is to prevent the spread of aquatic invasive species (AIS) by establishing two (2) Vermont Department of Environmental Conservation (VTDEC) trained Boat Launch Stewards at Lake Carmi State Park and at Lake Carmi's North Beach. Lake Carmi has officially been designated a Lake in Crisis by the State of Vermont. Lake Carmi is plagued by a heavy infestation of Eurasian watermilfoil (EWM). Establishing Boat Launch Stewards at both Lake Carmi State Park and at North Beach to inspect boats will help prevent the spread of EWM and other potential AIS from being transported into and out of Lake Carmi. It will also present the opportunity for the Boat Launch Steward to educate boaters in proper practices that prevent the spread of AIS, allow for the collection of data on the use of watercraft throughout Vermont, as well as educate boaters about how cross contamination may increase the spread of aquatic invasive species and negatively impact healthy aquatic ecosystems.

Outputs:

- Number of steward days of coverage
- Number of boats surveyed
- Spread prevention measures taken
- Invasive species collected
- 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: Emily Porter-Goff

Mailing Address: PO Box 79
Franklin, VT 05457

Phone: 802 448-0554

E-mail: emily.franklinwatershed@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:	
Grant Amount:	$14,992.00
Non-federal Match:	
Total Amount:	**$14,992.00**

2018 Program Grant

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

Lake Champlain Basin Program

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

2018 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 August 9, 2018 and completed their contract on September 1, 2018. Four areas were identified by CLWI and marked by special buoys. These areas have the deepest density of deep water EWM as identified by DFWI. In total, approximately 3,965 gallons of Eurasian Water Milfoil was removed. Aqualogic cleared a little less than two acres of maximum density EWM and approximately 86,000 square feet, or 90% of the EWM was removed. The program received great media coverage with a T.V. news piece and articles.

Outputs:

- In total, approximately 3,965 gallons of Eurasian Water Milfoil was removed.
- Aqualogic cleared a little less than two acres of maximum density EWM and approximately 86,000 square feet, or 90% of the EWM was removed.

Outcomes:

- 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.
- Reduced threat of aquatic invasive species spread from Chazy Lake.

Organization: Chazy Lake Watershed Initiative

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: https://www.adk.org/

Deep water Eurasian Water Milfoil prevalent during the summer of 2016. Photo taken by Lisa LaPoint Napper, August 2016.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12397
GLFC	0100-319-003
Start Date:	2/2/2018
Close Date:	**12/17/2019**
Grant Amount:	$15,000.00
Non-federal Match:	$ 4,936.20
Total Amount:	**$19,936.20**

2019 Local Implementation Grant

in progress

Chazy Lake Watershed Initiative / Chazy Lake Environmental Committee

Project Summary

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 will target DASH efforts in the densest deep-water populations of EWM as guided by plant survey work in 2008, 2012, and 2015 and 2018 by DFWI. By working closely with the Lake Champlain Basin Program (LCBP) we will protect the aquatic ecosystem, develop efforts to manage EWM and reduce the risk of introduction of spread of EWM to other waterbodies.

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
- composted cubic yards

Outcomes:

- 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

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

Phone: 518 492-7537

E-mail: readingchic.lm@gmail.com

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

Lake Champlain Basin Program

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

2019 Local Implementation Grant

in progress

Lake Dunmore Fern Lake Boat Access Greeter Program

Project Summary

LDFLA provides free boat and trailer inspections to prevent the spread of aquatic invasive species to Lake Dunmore and lakes in the Lake Champlain watershed. LDFLA collects 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
- 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: Jim Meyersburg

Mailing Address: PO Box 14
Salisbury, VT, 05769

Phone: 239-272-5494

E-mail: jimmeyersburg@msn.com

Website: www.ldfla.com

Salisbury Elementary 5th grade class project: Identifying and processing AIS - June 2018.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-041
EPA	0995-003-001
Start Date:	6/20/2019
Close Date:	
Grant Amount:	$14,656.00
Non-federal Match:	
Total Amount:	

2018 Local Implementation Grant concluded

Lake Eden Greeter Program

Project Summary

This year, eight (8) Lake Eden stewards conducted 2779 courtesy inspections, working a total of 1209.5 hours; and 13 volunteers spent 284.03 hours working on prevention efforts. The hard work of all involved has prevented AIS from entering Lake Eden and therefore has been a success. The Greeter Program stewards were present at the boat accesses for a total of 119 days over the course of the last summer. During their inspections, thirty-seven (37) revealed non-invasive organisms found, but no invasive organisms were found on boats entering and departing Lake Eden which is very good news for Eden, Lake Eden residents and recreational users

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

Mailing Address: PO Box 203
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:	PO 12530
EPA	0994-002-001
Start Date:	3/22/2018
Close Date:	**3/7/2019**
Grant Amount:	$15,000.00
Non-federal Match:	$12,018.00
Total Amount:	**$27,018.00**

2019 Local Implementation Grant

in progress

Lake Eden Greeter Program

Project Summary

There are three public boat launches on Lake Eden. This project will continue the Association's greeter program established in 2009 at each location to talk to boaters regarding 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

Mailing Address: PO Box 203
Eden, VT 05652

Phone: 802 760-0841

E-mail: gmdurett@myfairpoint.net

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

Boat Inspection Summer 2018

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-030
EPA	0995-003-001
Start Date:	4/17/2019
Close Date:	
Grant Amount:	$15,000.00
Non-federal Match:	$15,362.00
Total Amount:	**$30,362.00**

2018 Local Implementation Grant concluded

Lake George AIS Outreach Program

Project Summary

The Lake George AIS Outreach Program hired one summer staff member and had one summer volunteer 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.

Outputs:

- 4 canoes, 20 kayaks and 1 paddleboard inspections at Northwest Bay Cartop boat launch finding no aquatic invasive species attached to the vessels
- data collection
- delivery of educational AIS spread prevention messages to boaters and other recreationalists
- distribution of AIS print materials,
- identified and attended community events at which to have an invasive species display and information table 643 interactions with people between June and September 2018. Fifty- five of the interactions took place at the Northwest Bay Cartop boat launch.

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

LGA staff show examples of aquatic invasive species at the Bolton Landing Farmer's Market.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12532
EPA	993-003-001
Start Date:	3/22/2018
Close Date:	**3/26/2019**
Grant Amount:	$ 8,400.00
Non-federal Match:	$ 1,700.00
Total Amount:	**$10,100.00**

2019 Local Implementation Grant

in progress

Lake George AIS Outreach Program 2019

Project Summary

This project will continue 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 the Association hopes 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-2019-009
EPA	0995-003-001
Start Date:	3/26/2019
Close Date:	
Grant Amount:	$5,324.00
Non-federal Match:	$ 700.00
Total Amount:	**$6,024.00**

2018 Local Implementation Grant concluded

Lake Hortonia Milfoil Management

Project Summary

This project supported DASH harvesting of EWM on 1.3 acres located upstream of the lake water level control dam. This location also contains the main boat launch for the lake creating heavy boat traffic through a channel containing an abundance of Eurasian milfoil. The funding enabled the LHPOA to utilize non-chemical treatment (diver assisted suction harvest – or DASH) to mitigate the milfoil in this high boat traffic area of the lake. Removal of the Eurasian water milfoil in this area significantly reduces the spread of milfoil into the Lake Champlain Basin by controlling the weed segments traveling over the dam into the Lake Champlain watershed. The funds also provided the means for LHPOA to contract the Darrin Freshwater Institute to conduct a survey of the weeds (both native and invasive) that reside in Lake Hortonia.

Outputs:

- approximately 8 cubic yards of milfoil were removed from this 1.3-acre region of the lake
- reduction of concentration from moderate to scattered (a reduction of 83%) reducing the potential for milfoil to flow over the water level control dam or to become attached to boats and trailers using the launch
- Calendar of treatments, map of treatment area, map of potential "green" disposal areas.
- Data collection

Outcomes:

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

Organization: Lake Hortonia Property Owner Association

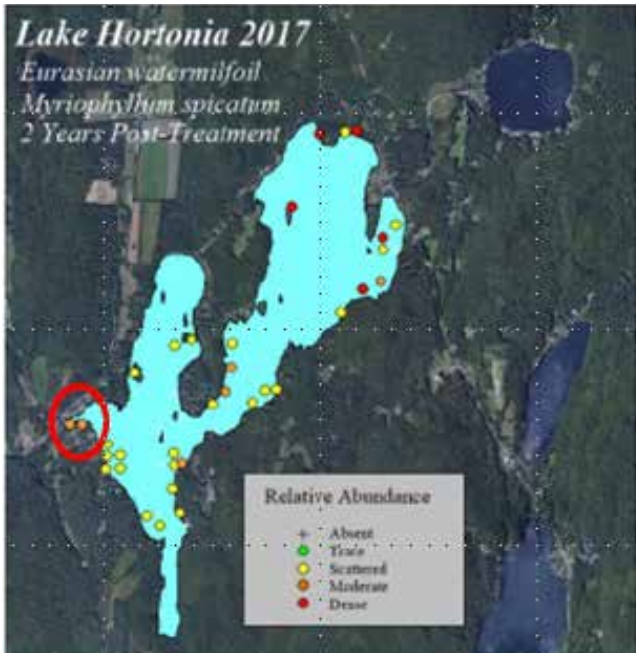
Contact Person: Thomas Batzinger

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.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12531
GLFC	0100-310-027
Start Date:	3/22/2018
Close Date:	**12/7/2018**
Grant Amount:	$10,950.00
Non-federal Match:	$ 4,034.00
Total Amount:	**$14,984.00**

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

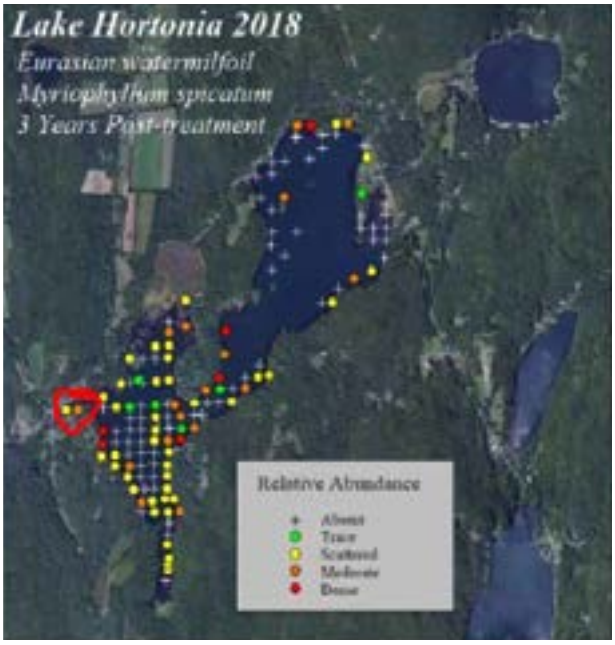
Contact Person: Thomas Batzinger

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**

2018 Local Implementation Grant concluded

Lake Iroquois Eurasian Water Milfoil Control via Diver Assisted Harvesting

Project Summary

This project was to conduct DASH around the rock island in the middle of the lake. This is an area of heavy infestation and in a part of the lake that sees quite a lot of boat traffic. Boats going through this area tend to break up the milfoil which aids its spread into other parts of the lake as well as attaching to boat propellers and possibly spreading the EWM to other water bodies. Thus, this is a priority area for reducing the EWM infestation. Additional clean-up work was also done near the public fishing access and near the public beach – the two areas that see considerable recreational activity and with heavy infestations of EWM.

Outputs:

- DASH harvesting of three dense beds
- data collection
- AB Aquatics was selected as the contractor to conduct DASH. Work was done on the lake August 8-24, 2018. 8,460 gallons of EWM were removed from the lake over 72.25 hours of work

Outcomes:

- prevent the worsening of the EWM infestation within Lake Iroquois, reducing the risk of spreading EWM elsewhere within the Lake Champlain watershed and reducing impact on recreation.
- increase in aquatic invasive species (AIS) spread prevention awareness
- Aquatic invasive species control and spread prevention in the basin

Organization:	Lake Iroquois Association
Contact Person:	Jamie Carroll
Mailing Address:	PO Box 569 Hinesburg, VT 05461
Phone:	802-635-2528
E-mail:	JamieCarroll@gmail.com
Website:	http://www.lakeiroquois.org/

Rock Island, Lake Iroquois.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12619
GLFC	0100-319-003
Start Date:	8/3/2018
Close Date:	**3/2/2019**
Grant Amount:	$15,000.00
Non-federal Match:	$ 2,050.00
Total Amount:	**$17,050.00**

2019 Local Implementation Grant

in progress

Lincoln Pond Invasive Plant Management Initiative

Project Summary

This project will address existing and future aquatic invasive species (AIS) threats to and from the lake through a two-prong approach: educational outreach to change the behavior of those using the lake, and the development of a comprehensive lake management plan. Educational initiatives will involve the collection, preparation, and distribution of literature (and related media) on recognition of aquatic invasive plants, their threat to water bodies, and ways to prevent their spread. This will include outreach to local, regional, and county residents, and especially to users of the formal and informal boat launches. It will also include a local school program about AIS threats and prevention. The second initiative will begin with hiring a professional consultant to provide us with a detailed aquatic plant survey. The Association will then work with the consultant to develop a sustainable plan for managing milfoil beds and decreasing the chances of introduction of new aquatic invasive species (AIS) through early detection. This will be followed up with annual survey work to monitor the effectiveness of our adopted management plan.

Outputs:

- develop a sustainable plan for managing milfoil beds
- devepment of educational outreach materials

Outcomes:

- decreasing introduction of new aquatic invasive species (AIS) through early detection

Organization: Lincoln Pond Association

Contact Person: Prof. Gerald Zahavi

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

Phone: 518 603-7422

E-mail: lincolnpondassociation@gmail.com

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

Aerial View of Lincoln Pond. Photo by Gerald Zahavi

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-034
GLFC	0100-323-003
Start Date:	4/7/2019
Close Date:	
Grant Amount:	$13,800.00
Non-federal Match:	$ 1,875.00
Total Amount:	**$15,675.00**

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**

2018 Program Grant

concluded

Missisquoi Bay Boat Launch Stewards

Project Summary

This grant supported the continuation of this program through the 2018 field season, stationing two stewards at public boat launches around Missisquoi Bay in Québec, one in Venise-en-Québec at the Pourvoirie Courchesne, and one in Philispburg (Saint-Armand) at the dock. Both interns worked from Thursday to Sunday from June 7th to August 19th.

Outputs:

- two stewards stationed at public boat launches around Missisquoi Bay in Quebec
- data collection
- Saint-Armand: a total of 63 watercrafts were processed, 2 of which captured Eurasian watermilfoil, one on launch and one on retrieve. The total number of people reached at this boat launch is 167.
- Venise-en-Québec, a total of 379 watercrafts were processed, 24 of which captured AIS including 1 Curly Leaf Pondweed (launching), 3 Elodea (launching), 19 Eurasian watermilfoil (5 launching, 14 retrieving) and 1 Native pondweed (retrieving). The total number of people reached at this boat launch is 1030.

Outcomes:

- control the introduction, spread, and impact of non-native nuisance species in order to preserve the biological/ecological integrity of the Lake Champlain ecosystem
- AIS spread prevention and education and outreach on Lake Champlain in QC portion of the watershed

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:	PO 12517
GLFC	0100-319-003
Start Date:	3/1/2018
Close Date:	**1/31/2019**
Grant Amount:	$16,000.00
Non-federal Match:	$ 1,190.00
Total Amount:	**$17,190.00**

2019 Program Grant

in progress

Missisquoi Bay Boat Launch Stewards 2019

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

2018 Local Implementation Grant concluded

Upper Saranac Lake Watershed Steward Program

Project Summary

This project encompasses posting lake stewards at the major points of entry and egress for boat traffic on Upper Saranac Lake with the goal of preventing the spread of Aquatic Invasive Species (AIS). Steward's prevent the spread of AIS by performing careful inspections of all watercraft launched and retrieved at these sites. The steward will decontaminate watercraft when appropriate, utilizing a decontamination wash station at the Back Bay Boat launch site. They will also educate lake users to increase visitor understanding of AIS issues and spread prevention measures that can be utilized by the general public. Steward's will collect detailed data to be used in Paul Smith's College Watershed Stewardship Program's (WSP) comprehensive summary report.

Outputs:

- data collection
- decontamination wash station in operation 126 days. A total of 458 decontaminations were performed, averaging 3.6/day.
- watercraft and trailer inspections 238 days of stewardship coverage (an increase of 5 days from 2017). Stewards inspected 3,603 watercraft for AIS, (almost the same amount as in 2017 – 3660) and educated 6,225 visitors about AIS ecology and spread prevention measures. Stewards intercepted 32 watercraft carrying AIS, that were either launching or being retrieved. This is a significant decrease from 2017 when 105 AIS were intercepted.
- public Water Shield workshop

Outcomes:

- Increased invasive species awareness and prevention of invasive species spread.
- Reduce the spread of aquatic invasive species in the Lake Champlain basin

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 https://www.lakegeorgeassociation.org/

Watershed Stewards decontaminating watercraft at Back Bay on Upper Saranac Lake utilizing Upper Saranac Foundation's, high pressure, hot water decontamination unit.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12534
EPA	0993-003-001
Start Date:	3/22/2018
Close Date:	**2/28/2019**
Grant Amount:	$15,000.00
Non-federal Match:	$ 1,000.00
Total Amount:	**$16,000.00**

2019 Local Implementation Grant

in progress

Upper Saranac Lake Watershed Steward Program

Project Summary

The LCBP funded Lake Steward will be posted at the NYS boat launch at the northern end of Upper Saranac Lake at Back Bay and if needed at the boat launch in the NYS campground at Fish Creek Pond, contingent on additional state funding through the Adirondack Aquatic Invasive Species Prevention Program for a steward at the campground. The campgrounds encompass both Fish Creek Pond and Rollins Pond, which feed directly into Upper Saranac Lake. Both locations are in the Saranac Lake watershed in the Town of Santa Clara, Franklin County.

Outputs:

- lake stewards posted at the major points of entry and egress for boat traffic on Upper Saranac Lake
- inspections of all watercraft launched and retrieved at these sites.
- decontaminate watercraft when appropriate utilizing a decontamination wash station at the Back Bay Boat launch site.
- educate 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: https://www.lakegeorgeassociation.org/

AWI Steward decontaminates a boat participating in a Bass Tournament at the USL Back Bay decontamination station. Photo: Guy Middleton

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-026
EPA	0995-003-001
Start Date:	4/16/2019
Close Date:	
Grant Amount:	$15,000.00
Non-federal Match:	$ 1,500.00
Total Amount:	**$16,500.00**

2019 Local Implementation Grant

in progress

Warren County SWCD Invasive Plant Project

Project Summary

The Warren County Soil and Water Conservation District will partner with Village of Lake George and Queensbury Parks and Recreation to host four trainings on riparian and aquatic invasive plants for municipal staff and community members. All four trainings will be in the field, comprising of two hands on training programs about invasive plants within riparian zones and the other two trainings to focus on aquatic invasive plants. The direct outputs are to host four trainings with information on plant identification, long-term management and monitoring, proper management techniques, spread prevention, disposal, alternative plantings, and the Scouting and Restoration Tool-kits. The outcome of these trainings will prepare municipalities and community members to utilize their Scouting and Restoration Tool-kits and knowledge from this course to prevent the infestation and spread of riparian and aquatic invasive species in the Lake Champlain Watershed.

Outputs:

- host four trainings with information on plant identification
- long-term management and monitoring
- proper management techniques
- spread prevention, disposal, alternative plantings
- 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 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:	
Grant Amount:	$6,792.00
Non-federal Match:	$2,080.00
Total Amount:	**$8,872.00**

2016 Local Implementation Grant

concluded

Water Chestnut Control at Missisquoi National Wildlife Refuge

Project Summary

This project continued effort to control Water Chestnut in 2018. The Friends have been working with the refuge to control water chestnut on refuge lands since 2007. 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:

- 179.5 person hours were spent pulling 687 water chestnut rosettes (56.5 pounds
- annual survey
- data collection

Outcomes:

- preventing the spread of water chestnut into unaffected areas in the northern lake.
- improving wetland habitat condition by controlling water chestnut on Missisquoi NWR.
- Water chestnut surveyed and controlled at the highest priority site in Lake Champlain.

Organization: Friends of Missisquoi National Wildlife Refuge

Contact Person: Rich Kelley and Ken Sturm

Mailing Address: 29 Tabor Road
Swanton, VT 05488

Phone: (802)868-4781

E-mail: Ken_sturm@fws.gov

Website: http://friendsofmissisquoi.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12577
GLFC	0100-319-003
Start Date:	4/30/2018
Close Date:	**11/27/2019**
Grant Amount:	$4,000.00
Non-federal Match:	$ 618.00
Total Amount:	**$4,618.00**

2019 Local Implementation Grant

concluded

Water Chestnut Control at Missisquoi National Wildlife Refuge

Project Summary

The refuge began water chestnut control operations on July 22, 2019 and completed the project on August 27, 2019 for a total of 15 workdays and 89.5 hours directly removing water chestnut. Refuge staff utilized a shallow water boat for survey and control operations covering a minimum of 495 acres of wetland habitat on the refuge. Cranberry Pool and Big Marsh Slough were the only locations were water chestnut was found and have been the problem areas each year on the refuge. This year the refuge removed a total of 218 rosettes showing that control operations have been successful.

Outputs:

- 15 workdays and 89.5 hours directly removing water chestnut
- the refuge removed a total of 218 rosettes

Outcomes:

- Partnership approach to water chestnut management continues in MNWR and threat of WC spread reduced.

Organization: Friends of Missisquoi National Wildlife Refuge

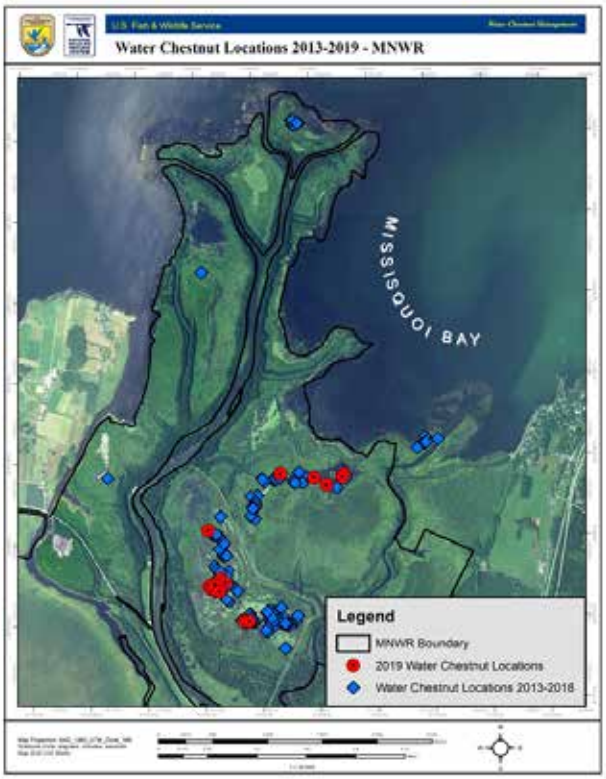
Contact Person: Rich Kelley and Ken Sturm

Mailing Address: 29 Tabor Road
Swanton, VT 05488

Phone: (802)868-4781

E-mail: Ken_sturm@fws.gov

Website: http://friendsofmissisquoi.org/



Lake Champlain Basin Program

NEIWPCC Code:	L-2019-021
GLFC	0100-323-003
Start Date:	
Close Date:	**9/27/2019**
Grant Amount:	$4,000.00
Non-federal Match:	$1,625.80
Total Amount:	**$5,625.80**

THRIVING COMMUNITIES


Crandall Public Library

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.

Local Grant Highlights

Talks, Treks and Tasks: Friends of the Saranac River Trail hosted a series of walking tours in downtown Plattsburgh to encourage people to learn about their community and connect with their neighbors.

Celebrating People and Place: The Warren County Historical Society developed *Warren County 360*, an interpretive exhibit to educate citizens about their community's natural resources, history, and geography.

International Tasting Trail
Vermont Fresh Network will develop interpretive materials for the Vermont portion of this trail, to tell the story of modern food production, sustainable agriculture, and agricultural heritage.

Paddlers Trail Map and Guide: The Vermont River Conservancy worked with university students to produce a waterproof map and interpretive content about the Lamoille River Paddlers Trail.

Lake George on the Water: The Folklife Center at Crandall Public Library in Glens Falls produced a series of 22 mini-documentaries to tell the stories of the people, places and traditions of the watershed.

Missisquoi River Fishing Platform
Missisquoi River Basin Association will build a public fishing platform. as a location to bring community members together to share the river, the area, and to share fishing tips and skills.

Jahaziel Sherman's Steamboats: The Lake Champlain Maritime Museum inventoried and digitized historical resources and created two interpretive exhibits about the steamboat pioneer from Vergennes, VT.

Adirondack Experience
Library Cataloging Internship will ensure the cataloging of historical ephemera documenting transportation, industry, tourism and development in the Lake Champlain corridor and the Adirondack Mountains from the 1800s through today.

Historic Main Street Homes
The Sheldon Historic Society will work with students to create interpretive displays depicting the history of homes of Main Street, Sheldon, VT increasing student and public awareness of the street's historical significance.

Photos: Friends of the Saranac River, Warren County HS, Crandall Public Library, LCMM, VRC (clockwise from top left)

THRIVING COMMUNITIES

Program Highlights

In addition to managing grants, LCBP staff oversee numerous projects and provide expertise in collaborative efforts to foster thriving communities in the Lake Champlain Basin and the Champlain Valley National Heritage Partnership. In Fiscal Year 2019, LCBP staff:

- Helped plan and deliver programs in recognition of the **International Year of the Salmon**, including the Lake Champlain Salmon Festival, the *Bringing Back Salmon* video series, and a series of travelling intepretive exhibits.
- Hosted the 8th annual **CVNHP International Heritage Summit,** where more than 80 participants discussed budget priorities and partnership opportunities for the year. Presentations were given on the International Year of the Salmon and the centennial of the 19th Amendment and women's suffrage.
- Developed a **seven-panel interpretive trail** that explores the locations that inspired James Fennimore Cooper to write his 1826 novel *The Last of the Mohicans*.
- Provided **technical assistance** to communities in developing interpretation programs and products.
- Assisted with **facilitation of public meetings** to share progress and get feedback on the International Joint Commission Lake Champlain-Richelieu River Study Board flood study.
- Coordinated with the **Québec Regional Stakeholder Group** to share information and solicit input for priorities for cultural heritage initiatives.
- Managed **166 local implementation grants** that provided financial and technical assistance to watershed groups, municipalities, natural resource conservation districts, and other organizations.

INTERNATIONAL YEAR OF THE SALMON

In consultation with the U.S. Fish and Wildlife Service, the LCBP developed a series of seven traveling interpretive exhibits focused on salmon restoration and history. The exhibits were on display at more than two dozen venues.

The Lake Champlain Salmon Festival in Richmond, VT included lectures, demonstrations, films, paddling, and fly casting. It culminated in a fall fingerling release into the Huntington River by a delighted group of children.

The three-part *Bringing Back Salmon* video series chronicles salmon restoration efforts in the Basin, including the community role in removing the Willsboro Dam on the Boquet River in New York.

The Lake Champlain Maritime Museum's replica canal schooner *Lois McClure* toured the Lake, sharing the history, ecology, and conservation story of salmon. A set of interpretive exhibits traveled with the *Lois* for the summer.

Photos: LCBP, LCBP, LCBP, Peregrine Productions (clockwise from top left)

2019 Local Implementation Grant

in progress

Furthering Bixby Library's Collections Management Plan

Project Summary

In addition to Bixby's work as a traditional library, it has served as a repository for local, regional, and national cultural material dating from the precontact era to the mid-twentieth century. As such, Bixby is responsible for the continued care of these collections. This project will build on the 2018 Inventory Project, which inventoried more than 90% of Bixby's vast Museum Collections. Funding from CVNHP will allow Bixby staff to identify legal owners of Collections under Bixby care; develop and approve a Collections Policy; and rehouse painting and print collections in a better temperature- and humidity-controlled environment. In achieving these goals, locally relevant collections will be prepared for public interpretation.

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/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

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

2019 Local Implementation Grant

in progress

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

Project Summary

LCMM will inventory and digitize collections and develop new interpretive exhibits and research 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:

- interpretive exhibits, digital maps, and 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/

Captain Jahaziel Sherman of Vergennes, Vermont (detail)
Artist unknown, ca. 1810

NEIWPCC Code:	LS-2019--011
NPS	0988-013
Start Date:	3/26/2019
Close Date:	
Grant Amount:	$ 9,000.00
Non-federal Match:	$18,887.00
Total Amount:	**$27,887.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2019 Local Implementation Grant

in progress

Shelburne Historical Society Document Scanning and Exhibit Development Project

Project Summary

The Town of Shelburne is renovating its historic town hall, and is including a new space for the Shelburne Historical Society. With this grant, the SHS intends to make a local history research center and exhibit space, using the treasure trove of historical documents and photographs in the town collection. This would include developing 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:

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-003
NPS	0988-013
Start Date:	3/26/2019
Close Date:	
Grant Amount:	$3,800.00
Non-federal Match:	$4,000.00
Total Amount:	**$7,800.00**

2019 Local Implementation Grant

in progress

South Champlain Historical Ecology Project - 3D Imaging Subproject

Project Summary

The South Champlain Historical Ecology Project is initiating the 3D Imaging Subproject. This subproject will utilize 3D scanning technology to establish a digital database for artifacts from SCHEP's archaeological excavations and important local private collections. The creation of this 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. Undergraduate interns and volunteers will receive extensive training and hands-on experience with 3D scanning technology.

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

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

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/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

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

2018 Local Implementation Grant

concluded

Capital Resilience Initiative

Project Summary

This project will deliver a program of communications and community activities that will leverage stormwater design work in Hubbard Park, volunteer monitoring data, and highly visible riverfront development to support Montpelier residents' connection to stormwater and river issues and increase their engagement with climate adaptation.

Outputs:

- development of communications stories to effectively connect climate-driven erosive damage on public and private lands to water quality in Montpelier and to watershed health beyond the capital
- publish a series of articles in our blog and in local newspapers, on climate change, stormwater, stream health and dynamics, and ways landowners can manage excess stormwater on their property
- host stream table (EmRiver) demonstrations in middle school and high school science classes, a public open house, and 2 field visits
- *Slow the Rain* campaign highlighted on radio show and newspapers

Outcomes:

- reducing erosive damage to upland areas
- reducing sediment, nutrient, and bacteria loading to rivers
- reduction of the impact that Montpelier has on Lake Champlain.
- increased public understanding of Montpelier's stormwater issues

Organization: Friends of the WInooski River

Contact Person: Michele Braun

Mailing Address: PO Box 777
Montpelier, VT 05602

Phone: 802-279-3771

E-mail: michele@winooskiriver.org

Website: https://winooskiriver.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12566
GLFC	0100-319-002
Start Date:	4/12/2018
Close Date:	**5/30/2019**
Grant Amount:	$ 9,395.00
Non-federal Match:	$ 2,207.00
Total Amount:	**$11,602.00**

2018 Local Implementation Grant

concluded

Face the River: Montpelier

Project Summary

The purpose of this project was to provide community decision makers in Montpelier the information they need to inform an urban planning process and a vision in which with adequate resilience, *we face our rivers*. With a highly graphic, visual and engaging pamphlet, video and podcast, Vermont River Conservancy (VRC) will reach a minimum of 3,000 viewers, listeners and readers and will bring rivers to the forefront of discussions and decisions related to urban planning in Montpelier. Additionally, VRC will hold at least 3 public presentations encouraging community members and officials alike to *face our rivers*.

Outputs:

- 3-5 minute video, audio podcast shared via social media
- informational printed hand-out
- presentations to Montpelier Planning Committee and City boards
- Interpreted technical information for the public.

Outcomes:

- protection or enhancement of river corridors for nutrient reduction and flood resilience
- reduce impact from land use and climate change including intense run-off and maintain connectivity in the face of climate change
- enhance flood resilience and climate change adaptation in community planning and development
- sustainable and accessible recreational opportunities for everyone within the CVNHP
- increased public knowledge and awareness of the Winooski River's role in Montpelier's landscape.

Organization: Vermont River Conservancy

Contact Person: Richarda Ericson

Mailing Address: 29 Main St., Ste 11
Montpelier, VT 05602

Phone: (802) 229-0820

E-mail: vrc@vermontriverconservancy.org

Website: www.vermontriverconservancy.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12515
EPA	0994-002-001
Start Date:	2/28/2018
Close Date:	**5/28/2019**
Grant Amount:	$10,165.00
Non-federal Match:	
Total Amount:	**$10,165.00**

2018 Local Implementation Grant

in progress

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

Project Summary

AsRA is advancing a multi-year effort to restore equilibrium and habitat diversity to the East Branch of the Ausable River. In 2016-17, we 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, with LCBP support through this grant, AsRA will gather and assess detailed geomorphic data describing the physical characteristics of the 33-mile study reach.

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 will be 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.

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:	
Grant Amount:	$19,980.00
Non-federal Match:	$ 2,250.00
Total Amount:	**$22,230.00**

2018 Local Implementation Grant

in progress

Town of Westport Culvert Replacement

Project Summary

The Essex County Soil and Water Conservation District (SWCD) will work together with the Town of Westport to replace the culvert on McMahon Road. 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. The grant will purchase a new culvert sized for large storm events with the Town installing the culvert with permitting and design assistance from the District.

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:

- 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:	
Grant Amount:	$20,000.00
Non-federal Match:	$ 5,000.00
Total Amount:	**$25,000.00**

2019 Local Implementation Grant

in progress

Exploring the Natural History of Lake Champlain's Salmonid Species

Project Summary

LCMM will center two education programs on salmonid species local to the Champlain Basin. A professional development course will increase LCMM's ability to interpret the 2019 Year of the Salmon, and our Watershed Science Apprenticeship will focus on in-depth topics for high school students. Both programs will explore and interpret natural history and management issues, and engage participants in hands-on activities and on-water excursions.

Outputs:

- develop a series of watershed science units related to Lake Champlain salmonid species
- implement the salmonid program of study in Vermont and New York high schools
- 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:	LS-2019-001
GLFC	0100-323-005
Start Date:	2/4/2019
Close Date:	
Grant Amount:	$7,500.00
Non-federal Match:	$1,320.00
Total Amount:	**$8,820.00**

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

in progress

International Lake ChamplainTasting Trail: Exploring the Conservation Movement through Agriculture

Project Summary

In early 2018, partners from Vermont, New York, Ontario, and Quebec began building an international culinary trail system that could circle Lake Champlain and be the world's longest interpretive trail for agritourism and shared food culture. The Vermont Fresh Network is seeking CVNHP funding to develop interpretive materials for the Vermont portion of this trail, to be used by trail organizers and individual places along the trail to tell the story of modern food production, sustainable agriculture, and agricultural heritage in the Lake Champlain basin. The network plans to employ new interpretive technology in the form of the interactive DigInVT website, along with printed materials and assistance to sites along the trail. The materials will be designed to represent Vermont's portion and also create continuity with sites on the New York and Quebec sides of our border. Partnerships will be expanded within Vermont to connect the food-focused trail with other trails and interpretive programs, such as for recreation and historic sites, that highlight the diversity of the conservation movement in the region.

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: Helen Labun

Mailing Address: P.O. Box 895
Richmond, VT 05477

Phone: (802) 434-2000

E-mail: helen@vermontfresh.net

Website: https://www.vermontfresh.net/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

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

2019 Local Implementation Grant

in progress

Missisquoi River Fishing Platform

Project Summary

he Missisquoi River is a valuable resource that flows through and provides an important connection between tcommunities and to the greater Lake Champlain Basin. Many of these communities are lacking direct access to the river and therefore are lacking an easy and frequent reminder of the many physical and emotional connections that the river provides. The MRBA is partnering with several other local organizations to improve and create these connections; for this project, the MRBA proposes to help encourage public fishing on riverfront property owned by the Village of North Troy. MRBA will investigate the installation of a fishing platform, and will work with partners to build such a structure or, if conditions at the site do not lend themselves to a fishing platform, a space that connects people to the river and to the opportunities it provides will be created (i.e. steps to better access the river for fishing and exploring, benches, an overlook/ viewing platform). This property is currently underutilized and is adjacent to the northern most reaches of the river in the US; increasing access to the river here will provide a tangible connection and a unique opportunity for residents and visitors to explore and enjoy the beautiful Missisquoi 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.

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 10
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:	
Grant Amount:	$6,395.00
Non-federal Match:	$ 830.00
Total Amount:	**$7,225.00**

2019 Local Implementation Grant

in progress

Rupert Vermont: Creating a Connection within our Community

Project Summary

The town of Rupert, Vermont is constructing an outside community recreational area, referred to as "The Rupert Town Green" that will be ready for use by Summer 2019. The grant money being requested would be used to install a Double Inline Upright interpretative sign at the Town Green that would emphasize 3 key takeaways 1.) the lands' significance as a habitat for Monarch Butterflies and other important wildlife, and how it is a conserved asset under Vermont Land Trust for recreational and agricultural use 2.) the history and importance of Rupert and 3.) a map showcasing all of the surrounding hiking/biking trails and attractions like the D&H Rail Trail and Merck Forest and Farmland Center. This sign is vital to the Town Green as it will help to facilitate communication to its visitors and enrich the community by improving interactions of residents in Rupert and the surrounding areas.

Outputs:

- finished sign at the Town Green
- hardcopy/digital copy of a town brochure.

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.

Champlain Valley National Heritage Partnership

Organization:	Town of Rupert
Contact Person:	Casey Czahor
Mailing Address:	2500 Pawlet Mountain Road Rupert, VT 05761
Phone:	802-394-2535
E-mail:	casey.czahor@yahoo.com
Website:	https://rupert.vt.gov/

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-037
NPS	0988-013
Start Date:	8/15/2019
Close Date:	
Grant Amount:	$4,000.00
Non-federal Match:	$ 780.00
Total Amount:	**$4,780.00**

2019 Local Implementation Grant

in progress

Adirondack Experience Library Cataloging Internship

Project Summary

This grant will support a full-time internship for 8 weeks during the summer 2019 season. The intern will work in the museum library, cataloging approximately 480 to 720 pieces of historical ephemera documenting transportation, industry, tourism and development in the Lake Champlain corridor and the Adirondack Mountains from the 1800s through today.

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, and
- accelerate the identification, evaluation, protection, and interpretation of heritage resources, including ethnographies of the cultures within the CVNHP.

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/

NEIWPCC Code:	LS-2018-023
NPS	0988-013
Start Date:	2/4/2019
Close Date:	
Grant Amount:	$5,000.00
Non-federal Match:	$2,682.00
Total Amount:	**$7,682.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2019 Local Implementation Grant

in progress

Education Fellowship

Project Summary

This Educational Fellowship (internship) will be a full-time, 12/14-week summer position focused on educational programming, collections management, docent (guide) work, and community outreach. Specifically, the intern will manage two cultural heritage/STEAM (science, technology, engineering, arts, mathematics) initiatives developed by SAM: Lake Lessons and the St. Albans Bay Storytelling Project. These efforts bridge topics in local history and ecology on St. Albans Bay and Lake Champlain for both students and visitors. Their work will also include updates to the Farming Franklin County exhibition.

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/

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

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2019 Local Implementation Grant

in progress

Jane Beck Folklife Fellowship

Project Summary

Aimed at balancing the programmatic needs of Vermont Folklife Center (VFC) with providing an opportunity for an individual to receive advanced post-graduate training, the Jane Beck Folklife Fellowship—Archival Fellowship provides one year of financial support, practical work experience, and specialized training in the management of oral history/ethnographic and multimedia archival collections. Open to a recent graduate of a program in archival and library science or folklore studies, ethnomusicology and anthropology, the Beck Fellow will work 25 hours per week with materials in the VHC archive, providing support to the Archivist and Assistant Archivist, cataloging materials in the collection, creating new online digital collections, assisting patrons, and facilitating digital preservation protocols.

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.

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/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

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

2019 Local Implementation Grant

in progress

Summer Graduate Fellow in Education

Project Summary

Fort Ticonderoga 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. Fort Ticonderoga seeks support from the Champlain Valley National Heritage Partnership to support the 2019 EWP Graduate Fellow in Education.

Outputs:

The Fellow will:

- 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/

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

2018 Local Implementation Grant concluded

A New Approach to Teaching the Battle of Bennington to Middle School Students of the Southwest Vermont Supervisory Union

Project Summary

The Bennington Museum received a 2018 Local Heritage Grant to fund a project aimed at helping young people understand how the historical memory of the Battle of Bennington was formed and continues to be formed. The funding enabled the Bennington Museum and its partners to carry out a program involving study and creative work by 7th grade students of the Mount Anthony Union Middle School. Students spent two weeks in May 2018 learning about the Battle through study of primary sources, through presentations by local history experts, and through a visit to the Bennington Battlefield in nearby New York State. Students then created digital storytelling projects culminating in public exhibitions of their work. The project formed partnerships among individuals and organizations that are likely to last. The work laid the basis for continuing study of local heritage in our schools, and the materials will be shared with other schools in Vermont and New York.

Outputs:

- student field trips to the Bennington Battlefield
- localize Vermont's C3 7th-grade curriculum with innovative approaches to Global Citizenship
- assemble a Battle of Bennington teaching toolkit using materials developed through the grant and make it available to schools in the CVNHP area and beyond.
- Educational programs that tells the story of the Battle of Bennington.

Outcomes:

- produce coordinated education programs for students.
- improve school access to heritage sites and events within the CVNHP.
- utilize new and existing research and documentation to support the evaluation, conservation, and interpretation of natural and cultural heritage resources.
-

Champlain Valley National Heritage Partnership

Organization:	Bennington Museum
Contact Person:	Deana Mallory
Mailing Address:	75 Main St Bennington VT 05201
Phone:	802-447-1571
E-mail:	dmallory@benningtonmuseum.org
Website:	https://benningtonmuseum.org/

Students from Mount Anthony Union Middle School in Bennington reenact a muster.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12500
NPS	0988-012
Start Date:	1/31/2018
Close Date:	**8/28/2019**
Grant Amount:	$ 5,000.00
Non-federal Match:	$ 5,248.00
Total Amount:	**$10,248.00**

2019 Local Implementation Grant

in progress

Abenaki Picture-Book Dictionary

Project Summary

The Endangered Alphabets Project will work with area students and Native and non-Native youth from the Champlain Basin to create and publish a 100-word picture-book Abenaki dictionary for children that can be used by both Abenaki youth groups relearning their own language and non-Native children wanting to learn more about their community's cultural heritage.

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

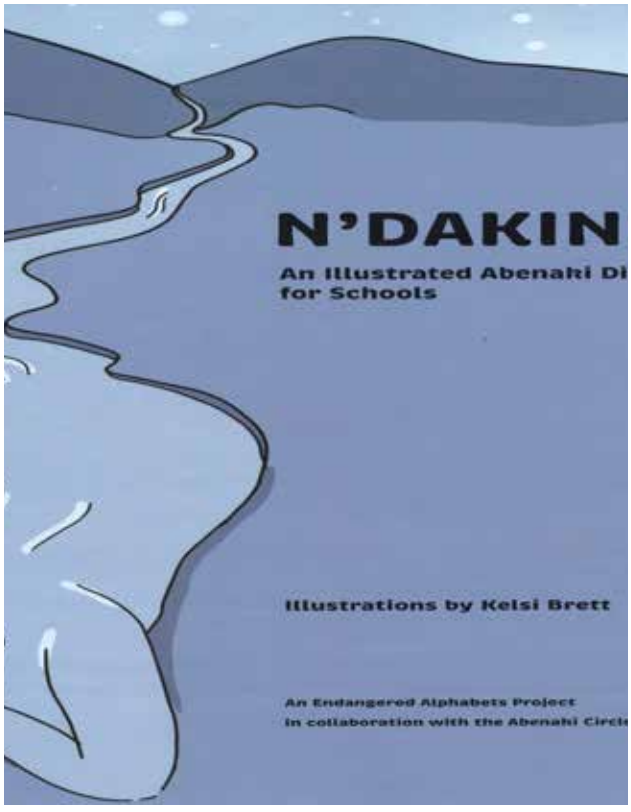
Contact Person: Tim Brookes

Mailing Address: 7 Baird Street
Burlington, VT 05401

Phone: (802) 310-5429

E-mail: brookes@champlain.edu

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



Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

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

2019 Local Implementation Grant

in progress

Battle of Plattsburgh Military Muster

Project Summary

During the Battle of Plattsburgh Commemoration weekend (September 14-15), the Kent-Delord House Museum wants to continue to build on the success of its 2018 Military Muster. Re-branding the former Grand Encampment revitalized the event. Attendance surged by 38%, people were drawn to hands-on activities, knowledgeable demonstrators and interpretive tables. The addition of new programs further enhanced the daily schedule. This event can sustain increased growth, continue to draw people into history, and a great opportunity to learn history, both American and local.

Outputs:

- During the 2019 Battle of Plattsburgh Commemoration weekend (September 14-15) the Kent-Delord House will sponsor a Military Muster on the historic grounds. It will feature a living historic encampment filled with re-enactors plus a number of hands-on activities of period trades and crafts, live military demonstrations, trades people and static educational exhibits.
- 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.

Champlain Valley National Heritage Partnership

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/

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-022
NPS	0988-013
Start Date:	31/1/2019
Close Date:	
Grant Amount:	$2,000.00
Non-federal Match:	$1,565.00
Total Amount:	**$3,565.00**

2019 Local Implementation Grant

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

Champlain Valley National Heritage Partnership

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/

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 Local Implementation Grant

in progress

Lake George on the Water

Project Summary

Lake George On the Water will tell the stories of the people, places and traditions of the Lake George watershed via a series of mini-documentaries produced by the Folklife Center working with college interns, and making the series available to the public on YouTube and iPad kiosks within the Lake George corridor.

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.

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: 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/

NEIWPCC Code:	PO 12678
GLFC	0100-323-005
Start Date:	2/6/2019
Close Date:	
Grant Amount:	$ 5,085.00
Non-federal Match:	$21,780.00
Total Amount:	**$26,865.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2017 Local Implementation Grant concluded

Lamoille River Paddlers Trail Waterproof Map and Guide

Project Summary

Utilizing a 2018 Champlain Valley National Heritage Partnership Grant, the Vermont River Conservancy (VRC) engaged students from the University of Vermont and Johnson State College in the development of a map and guide for Vermont's Lamoille River. The map blends information about the recreational opportunities with content about the region's unique natural and cultural history. The VRC worked with students to research, draft interpretive material, and design a map cover and layout. Work was completed over a one-year period, ending with an 18"x24" waterproof map and guide for the Lamoille River published in spring 2019.

The VRC is a land trust, focused on conserving and protecting special lands along the waters of Vermont. The VRC coordinates the Lamoille River Paddlers' Trail, a community effort to improve opportunities for exploration of the Lamoille River.

Outputs:

- a map and guide for the Lamoille River

Outcomes:

- public information program that emphasizes recreational ethics, public safety, sustainable use, and stewardship of cultural and natural resources

Organization: Vermont River Conservancy

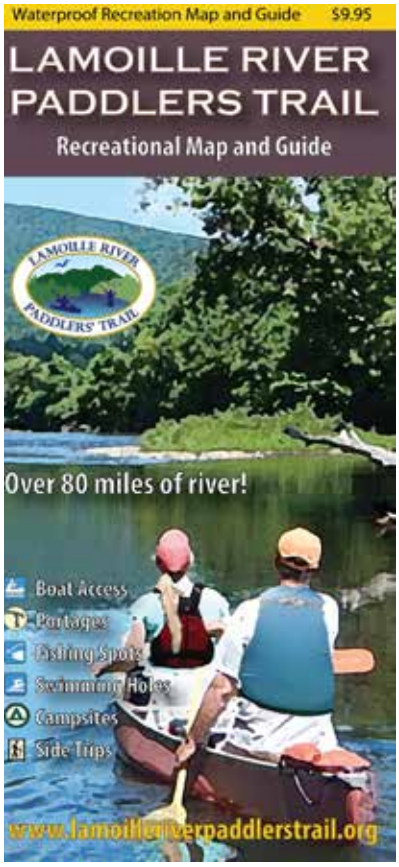
Contact Person: Noah Pollock

Mailing Address: 29 Main St
Montpelier, VT 05602

Phone: 802-540-0319

E-mail: noah@vermontriverconservancy.org

Website: https://www.vermontriverconservancy.org/



NEIWPCC Code:	PO 12542
NPS	0988-012
Start Date:	3/23/2018
Close Date:	**8/9/2019**
Grant Amount:	$4,934.00
Non-federal Match:	$2,390.00
Total Amount:	**$7,324.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2019 Local Implementation Grant

in progress

Natural History Interpretation of Rugar Woods

Project Summary

This project seeks to engage and inform the SUNY Plattsburgh campus and greater Plattsburgh community on the natural history of Rugar Woods, our urban campus forest tract. Rugar Woods currently houses an ad-hoc multi-use trail system used by students across disciplines as a field laboratory site, cross-country athletes for races, nature enthusiasts, dog walkers, and frisbee golfers. This project aims to formalize an interpretive nature trail that would guide users through the ecology and representative flora of the region, such that users can enrich their learning and better appreciate the natural resources Rugar Woods provides. Further, this trail aligns with the projected next phase of the Saranac River Trail Greenway (SRTG) and could serve as an ideal spur trail to that larger trail system. The project will develop interpretive and wayfinding signage that will promote visibility of the trail and potential connections with the SRTG.

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.

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

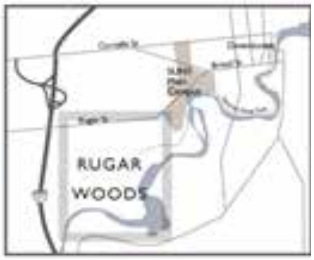
Contact Person: Danielle Garneau, Ph.D; Mark Lesser, Ph.D., Mary Alldred, Ph.D.

Mailing Address: 101 Broad St.
Plattsburgh, NY 12901

Phone: 518-564-4073

E-mail: dgarn001@plattsburgh.edu

Website



Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	LS-2018-028
NPS	0998-013
Start Date:	6/18/2019
Close Date:	
Grant Amount:	$3,911.00
Non-federal Match:	$5,415.00
Total Amount:	**$9,326.00**

2017 Local Implementation Grant concluded

Revitalizing Franco-American Song in the Champlain Valley of Vermont

Project Summary

The Revitalizing Franco-American Song in the Champlain Valley of Vermont project brought together the Vermont Folklife Center (VFC), Young Tradition Vermont (YTV), French Canadian song scholar Lisa Ornstein, and Franco-American singers Carmen Beaudoin Bombardier and Kim Chase with the goals of: creating a songbook and associated website presenting 12 songs from the family repertoires of Bombardier and Chase; holding a multi-week "Franco-American Singing School" to teach these songs. Over the course of the winter, spring and summer of 2018, project partners created teaching resources and promoted the Singing School. The Singing School met for six one-and-a-half-hour sessions from September 17-October 29, 2018 at Beaudoin Bombardier's home on Burlington's south side.

Outputs:

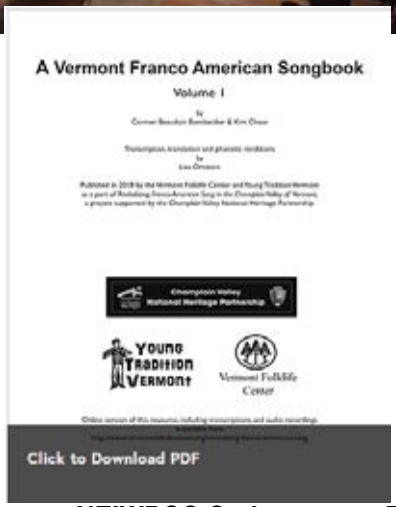
- developed and piloted a series of six 90-minute "Singing Schools" for the fall of 2018
- created a songbook and website to support them. The songbook contains lyrics in French, phonetic versions of the French language text for non-French readers, and sheet music for the associated tunes. The website features the complete content of the songbooks in digital form as well as downloadable audio recordings of the teachers singing each song. http://www.vermontfolklifecenter.org/revitalizing-franco-american-song

Outcomes:

- encourage the sustainability of cultural practice and the conservation of cultural heritage

Champlain Valley National Heritage Partnership

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/



Lake Champlain Basin Program

NEIWPCC Code:	PO 12541
NPS	0988-012
Start Date:	3/23/2018
Close Date:	**1/7/2019**
Grant Amount:	$5,000.00
Non-federal Match:	$1,910.00
Total Amount:	**$6,910.00**

2019 Local Implementation Grant

in progress

Sheldon Village Historic Main Street Homes

Project Summary

The Sheldon Historical Society in cooperation with the Sheldon Public School, Sheldon Town, and the Sheldon Municipal Library will update a 1982 report titled "Vermont Division For Historic Preservation, Historic Sites and Structure Survey, Franklin County, Sheldon" completed through the Vermont Division for Historic Preservation with our focus on the survey of the "Sheldon Creek Historic District". Students will study the history of this important district through research, site visits, and individual interviews with current and former occupants.

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.

Outcomes:

- An increased student and public awareness of the historical significance of Main Street Sheldon Vt.

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/

NEIWPCC Code:	LS-2019-004
NPS	0988-013
Start Date:	3/4/2019
Close Date:	
Grant Amount:	$4,000.00
Non-federal Match:	$3,200.00
Total Amount:	**$7,200.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2017 Local Implementation Grant concluded

The Green Mountain Boys: Founders of the Vermont Republic

Project Summary

The Ethan Allen Homestead (EAH) utilized a 2018 CVNHP Local Heritage Grant to create a traveling exhibit that focused on the history of the Green Mountain Boys from the original outlaw organization to the modern Vermont National Guard. The exhibit highlights military exploits of Vermont soldiers throughout American history. The exhibits also interpret the story of women, people of color, and Indigenous Vermonters in the Green Mountain Boys. The EAH drew upon several historians to create the exhibit, as well as documents from the National Archives, and images obtained from the Vermont Historical Society to develop a visually engaging exhibit that includes multimedia and supplemental materials.

Outputs:

- A traveling interpretive exhibit that includes multimedia and supplemental materials.
- resource for Vermont institutions interested in the history of the state and the Green Mountain Boys.

Outcomes:

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

Organization: Ethan Allen Homestead Museum

Contact Person: Daniel O'Neil

Mailing Address: 1 Ethan Allen Homestead
Burlington, VT 05408

Phone: (802) 865-4556

E-mail: info@ethanallenhomestead.org

Website: http://www.ethanallenhomestead.org/

The display began its travels at 2018 CVNHP International Summit and visited the State House on Jan. 15, 2019 for Vermont Independence Day.

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	PO 12510
NPS	0988-012
Start Date:	2/22/2018
Close Date:	**12/5/2018**
Grant Amount:	$ 5,000.00
Non-federal Match:	$ 7,926.00
Total Amount:	**$12,926.00**

2017 Local Implementation Grant concluded

Warren County 360

Project Summary

The Warren County Historical Society (WCHS) received $5,000, 2018 CVNHP Local Heritage Grant to develop a new interpretive display called "Warren County 360: Celebrating Place and People." The WCHS conceived the project in late 2017 as a way of developing a new and innovative display to tell the story of the evolution of Warren County and to make its new headquarters in Queensbury a tourism destination. Focusing on cultural geography, a group of volunteers and three student interns, all under the direction of the WCHS Executive Director, embarked upon an 18-month research project to examine the role of the county's natural resources (water, land, mountains, soils) and geography in the formation and development of our economy and culture. The innovative exhibit was installed August 10, 2019, with a grand debut reception scheduled for September 12, 2019 .

Outputs:

- A permanent interpretive exhibit, called "Warren County 360: Celebrating Place and People," which transformed the building into a museum for the public.

Outcomes:

- interpretation of our past to better understand and prepare for our future.

Organization: Warren County Historical Society

Contact Person: Teri Podnorszki Gay

Mailing Address: 50 Gurney Lane
Queensbury, NY 12804

Phone: 518 743-0734

E-mail: mail@warrencountyhistoricalsociety.org

Website: http://www.warrenhistory.org/

NEIWPCC Code:	PO 12545
NPS	0988-012
Start Date:	3/23/2018
Close Date:	**8/20/2019**
Grant Amount:	$ 5,000.00
Non-federal Match:	$17,000.00
Total Amount:	**$23,000.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2019 Local Implementation Grant

in progress

"Year of the Salmon"—A Community Generated Movie

Project Summary

Utilizing a 2019 CVNHP Conservation & Community Interpretive Theme Grant, the Swanton Arts Council succeeding 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.

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

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

2017 Local Implementation Grant

concluded

Youth Experience: History & Impact of Local Interstate Road Development

Project Summary

This project was designed to engage up to ten students in grades 6-9 in a hands-on exploration in their own "back yard." During two weeks in August 2018 participants were immersed in the discovery the history of a section of Interstate 87 (Adirondack Northway) through the Towns of Chesterfield and AuSable, NY. This section echoes that of the Golden Spike of the Transcontinental Rail Road in that, Keeseville was the final mile completed prior to the 1967 opening of the 333-mile road linking New York City and the Canadian border. The intersection of people, geography, geology, and economics parallels earlier transportation routes of the military, rail road, and waterways.

Early deliverables proceeded as projected, but unexpected health issues of the project lead, contributed, in part, to difficulties in recruiting student participants. Ultimately no students enrolled and the project was regretfully terminated in early August 2018. The project did have some success including:

Outputs:

- Identification of a significant aspect of history that had not been previously interpreted at a local level.
- Establishment of a preliminary resource file and lesson plans on the history of the local section of Interstate 87.
- Increased community interest in learning and sharing local history at a personal level as well as at the big picture level
- Development of templates for a designated service contract and participant enrolment.
- preservation of eyewitness interviews

Outcomes:

- historical, environmental, and cultural elements of the interstate

Organization: Anderson Falls Heritage Society

Contact Person: Betty Brelia

Mailing Address: 96 Clinton St.
Keeseville, NY 12944

Phone: (518) 834-7138

E-mail: jbbre67@charter.net

Website: https://www.andersonfalls.com/

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

NEIWPCC Code:	PO12394
NPS:	0988-012
Start Date:	1/31/2018
Close Date:	**10/22/2018**
Grant Amount:	$2,500.00
Non-federal Match:	$ 870.00
Total Amount:	**$3,370.00**

2018 Local Implementation Grant concluded

Battle of Plattsburgh Military Muster

Project Summary

For the 2018 Battle of Plattsburgh Commemoration the Kent-Delord House Museum is planning to switch away from the grand encampment idea and re-brand the event as a Military Muster to allow expansion of the mission. The encampment will remain, but supplemented and enhanced by live demonstrations, hands-on activities of crafts and trades and static educational exhibits. This will augment the educational aspect of the event and cater to youths and families.

Outputs:

- sponsor a Military Muster on the historic grounds - a living historic encampment filled with re-enactors plus a number of hands-on activities of period trades and crafts, live military demonstrations, trades people and static educational exhibits ranging from soldier interpretations to a full sized non-working replica of a Congreve rocket which were used by the British forces. The grounds will be open to the public for ten (10) hours during the weekend for no charge.
- The re-branding of the weekend exceeded expectations with a 38 percent increase in visitation to the museum.

Outcomes:

- opportunity to learn history, both American and local
- promote sustainable recreational activities that feature the natural, cultural, and historical resources in the CVNHP
- connect, promote, and improve cultural and natural heritage sites through interpretation
- use of interpretive themes to link resources within the CVNHP
- support historical and archeological research and documentation.
- support initiatives that highlight the relationships among stakeholder sites and programs through interpretation, while maintaining the individual character of those sites.

Champlain Valley National Heritage Partnership

Organization: Kent Delord House

Contact Person: Don Wickman

Mailing Address: 17 Cumberland Avenue
Plattsburgh, NY 12901

Phone: 518-561-1035

E-mail: kdhmdirector@gmail.com

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

Lake Champlain Basin Program

NEIWPCC Code:	PO 12614
GLFC	0100-319-005
Start Date:	7/4/2018
Close Date:	**1/7/2019**
Grant Amount:	$1,400.00
Non-federal Match:	$8,612.00
Total Amount:	**$10,012.00**

2018 Local Implementation Grant

concluded

Lake Champlain Regional Border Map Project

Project Summary

Dotting the southern Canadian border is a line of small towns not all that different from those in Franklin and Grand Isle Counties. For each Canadian town with a signature cuisine, attraction or festival is a counterpart American town with a similar vibe. Yet, if one looks at a map of Northwest Vermont or Southern Québec, all activity stops at each country's respective border. The Conseil Économique et Tourisme Haut-Richelieu and CLD Brome-Missisquoi, the Franklin County Industrial Development Corporation, and the Franklin County Regional Chamber of Commerce began a collaboration in 2016 whose primary goal is promoting cultural and commercial exchange between the southern counties of Québec and the northwestern counties of Vermont. By its very nature the Lake Champlain Region Border Map lends itself to making connections in a region where two countries are linked by combined natural resources, a common history, a cooperative future, friendship, and tourism.

Outputs:

- 1st Lake Champlain border region map highlighting events, attractions, and destinations that speak to shared history, inviting regional travelers to connect the historical dots.

Outcomes:

- resource to continuing a dialogue around cultural destinations and traditions, education, recreation and ultimately economic development.

Organization: Conseil Economique et Tourisme Haut-Richelieu

Contact Person: Isabelle Charlebois

Mailing Address: 31 rue Frontenac
Saint-Jean-sur-Richelieu, QC J3B 7X2

Phone: 450-542-9090

E-mail: charleboisi@haut-richelieu.qc.ca

Website:

The bilingual maps are distributed on both sides of the United States/Canadian border.

NEIWPCC Code:	PO 12538
GLFC	0100-319-005
Start Date:	3/22/2018
Close Date:	**7/5/2018**
Grant Amount:	$5,000.00
Non-federal Match:	$4,001.00
Total Amount:	**$9,001.00**

Champlain Valley National Heritage Partnership

2018 Local Implementation Grant

concluded

Loyal Legacy: Conserving and Displaying the Camp Colors of the Royal Highland Emigrants

Project Summary

Funding allowed Fort Ticonderoga to conserve, display and provide programmatic interpretation of one of the most significant artifacts in the collection, the Camp Color of the Royal Highland Emigrants. Camp colors were used to indicate the boundary of a particular regiment's camp, and are exceedingly rare.

The flag was conserved by Gwen Spicer, who has extensive experience with the conservation of textiles, and especially with military flags. Upon its return, the flag was installed in the exhibit, "1781: A War Not Yet Won," alongside other material related to the British army in Canada, including a portrait of one of the battalion commanders of this very regiment.

At Scots Day in June, the museum curator presented a talk on the context and conservation of the object. This public program, open to all visitors, allowed Fort Ticonderoga to formally present this important item from the collection for the first time.

Outputs:

- A rare (one of three) British regimental flag from the American Revolution was conserved and protected.
- digital image of stabilized flag

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.

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/

NEIWPCC Code:	PO 12503
GLFC	0100-319-005
Start Date:	2/13/2018
Close Date:	**10/22/2018**
Grant Amount:	$5,000.00
Non-federal Match:	$1,600.00
Total Amount:	**$5,600.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2018 Local Implementation Grant

concluded

Seeds of Renewal Programming & Exhibition

Project Summary

The Seeds of Renewal exhibit and associated programming was a partnership between the Vermont Historical Society (VHS) and Dr. Frederick M. Wiseman, to celebrate, disseminate information, and preserve his work on the Seeds of Renewal Program. The project ran from November 2018 to May 2019 at the Vermont History Museum in Montpelier. The exhibit included text panels, along with interactive and educational elements. Associated programming included lectures and a community workshop by Dr. Wiseman, a home-school education program, and an educator seed packet.

Through these components, the project raised awareness by educating visitors and community members on Abenaki agricultural history, cuisine, and ceremony. Following de-installation in Montpelier, the Seeds of Renewal exhibit will travel to communities around the state, as well as out of state communities within the Wabanaki region, which will provide even more opportunities to highlight and educate on this topic

Outputs:

- An interpretive display at the Vermont History Museum with an accompanying curriculum for home-schoolers.
- workshops with Abenaki communities and school teachers
- school group visits and workshops and History for Homeschoolers program

Outcomes:

- Provide 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.

Champlain Valley National Heritage Partnership

Organization:	Vermont Historical Society
Contact Person:	Eileen Corcoran
Mailing Address:	60 Washington St Barre, VT 05641
Phone:	(802) 479-8522
E-mail:	Eileen.corcoran@vermonthistory.org
Website:	https://vermonthistory.org/




Lake Champlain Basin Program

NEIWPCC Code:	PO 12398
GLFC	0100-319-005
Start Date:	2/5/2018
Close Date:	**6/4/2019**
Grant Amount:	$ 5,000.00
Non-federal Match:	$11,056.00
Total Amount:	**$16,056.00**

2018 Local Implementation Grant concluded

The Abenaki Harvest Collection

Project Summary

The Harvest Celebration Grant had two objectives, the first was cultural revitalization of Western Wabanaki food systems; to plant, nurture, harvest, and consume Abenaki crops using ancestral Abenaki agricultural and ceremonial traditions, and second, to share the results of this revival with the public through a day-long fall, 2018 Harvest Celebration at the ECHO Lake Aquarium.

Unfortunately the original workshop teaching team neither taught nor recruited performers for the event, requiring the Grant P.I to perform these roles. Nevertheless, a dedicated intertribal group of Abenakis stepped forward to first construct several sets of traditional Harvest Celebration dance regalia and performance accessories that were distributed to Vermont Abenaki leaders and performers. Second, they attended training workshops in harvest song, dance, oratory, wampum ceremony and cuisine, so as to learn to perform what was needed for the public event in October, 2018.

The intertribal group has decided to formally continue working together to promote Abenaki culture through dance, song, ceremony and cuisine.

Outputs:

- The Harvest Festival not only documented and celebrated traditional Native American food, but created a foundation for future work among the Abenaki bands of Vermont.
- Development of a curriculum, lesson plan, and a handbook on the ceremonies. The written lesson plan will serve as a prototype for teaching and learning other well documented Abenaki songs, dances and ceremonies.
- The Harvest Celebration and manual

Outcomes:

- Promoting public awareness of this deep, time honored, and highly endangered agricultural heritage

Champlain Valley National Heritage Partnership

Organization: ECHO, Leahy Center for Lake Champlain

Contact Person: Phelan Fretz PhD

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Phone: 802-864-1848 Ext 126

E-mail: pfretz@echovermont.org

Website: https://www.echovermont.org/

Children Learn the Snake Dance

Abenaki Welcoming Song to Begin the Feast

Lake Champlain Basin Program

NEIWPCC Code:	PO 12399
GLFC	0100-319-005
Start Date:	2/5/2018
Close Date:	**4/26/2019**
Grant Amount:	$ 5,000.00
Non-federal Match:	$10,700.00
Total Amount:	**$15,700.00**

2018 Local Implementation Grant concluded

The Loyalists Trail Project

Project Summary

The Festifolies team partnered with the Champlain Valley National Heritage Partnership in its efforts to encourage and facilitate cooperation to conserve, interpret, and support the cultural, recreational, and natural resources of the region, in order to enrich the lives of those who live and visit here. The project not only led to the development of three new, high-quality interpretive signs, it also illustrated the rich, interconnected history and culture of the U.S. and Quebec.

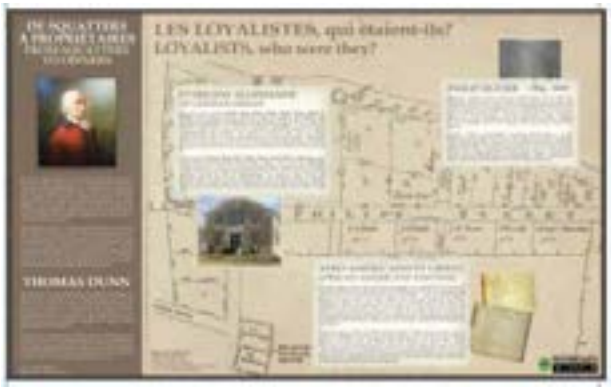
Outputs:

- 3 wayside exhibits that interpret the English loyalists' emigration to Quebec after the American Revolution.
- launch of Loyalists Trail Project

Outcomes:

- Connect, promote, and improve cultural and natural heritage sites through interpretation.
- Develop and/or improve natural and cultural heritage interpretative trails using wayside exhibits and other informative media.
- Support efforts to link communities through transportation routes that feature interpretation of heritage resources.

Organization:	Festifolies en Armandie
Contact Person:	Guy Paquin
Mailing Address:	224, chemin Saint-Armand Saint-Armand, Qc J0J 1T0
Phone:	(450) 248-0523
E-mail:	gpaquin000@sympatico.ca
Website:	http://baladodiscovery.com/circuits/470/a-tour-of-st-armands-historical-landmarks



NEIWPCC Code:	PO 12509
GLFC	0100-319-005
Start Date:	2/16/2018
Close Date:	**7/5/2018**
Grant Amount:	$ 5,000.00
Non-federal Match:	$ 6,127.00
Total Amount:	**$11,127.00**

Champlain Valley National Heritage Partnership

Lake Champlain Basin Program

2018 Program Grant

concluded

Environmental Monitoring and Recreational Assessment

Project Summary

The Missisquoi River Basin Association (MRBA) and the Upper Missisquoi and Trout Rivers Wild and Scenic Committee (Committee) received a $6,000 CVNHP grant to work in close conjunction to monitor, project, and improve the water quality of the streams and rivers in the Missisquoi watershed, and to encourage visitors and residents to use and enjoy the resources that these waterways offer. Data collection assists the MRBA conduct outreach about the importance of water quality to the public, and inform implementation projects that will improve water quality.

The MRBA also worked with the Northern Forest Canoe Trail to improve an access point, including removable stairs, along the Upper Missisquoi in Westfield, Vermont.

Outputs:

- The MRBA and its partners collected 344 samples from the Missisquoi River, Trout River, and tributaries between May and September 2018.
- coordinate water sampling program along the Missisquoi River, Trout River, and tributaries
- water quality monitoring datasheets
- river access assessment including maps and photo documentation
- river access and water quality outreach (notes, flyers, photos)

Outcomes:

- Support initiatives that promote sustainable recreational activities that feature the natural, cultural, and historical resources in the CVNHP.
- Action 9.7: Increase and improve public access opportunities to the interconnected waterways of the CVNHP for diverse recreational activities.
- Action 9.22: Focus on land use changes and effects of stormwater runoff on water quality.
- improved water quality and access for recreationists

Champlain Valley National Heritage Partnership

Organization: Missisquoi River Basin Association

Contact Person: Lindsey Wight

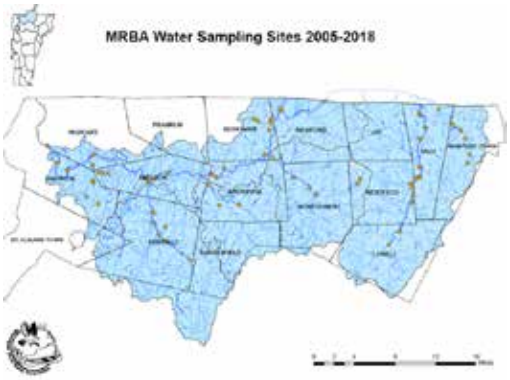
Mailing Address: 2839 VT Route 105
East Berkshire, VT 05447

Phone: 802-393-0076

E-mail: mrba@pshift.com

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

View of the new access point from the river.



Lake Champlain Basin Program

NEIWPCC Code:	PO 12565
NPS	988-012
Start Date:	4/9/2018
Close Date:	**10/16/2018**
Grant Amount:	$6,000.00
Non-federal Match:	
Total Amount:	**$6,000.00**

2019 Local Implementation Grant

in progress

Boquet River Association Website Improvement

Project Summary

Boquet River Association will hire a computer/web site professional Ken Hughes, the MacMan, to help get the old web site off the Internet and to create a better, easier link to our members and others wishing to learn about the Boquet River. The Association will update the information, add the ability to take memberships, donations or accept money for our promotional materials such as T-shirts and hats with our logo. Trainings will be held to ensure that more than one of our members know 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:

- 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: www.boquetriver.com

Lake Champlain Basin Program

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

2016 Local Implementation Grant concluded

Building Membership and Managing Projects Through Database Support

Project Summary

The Farmer's Watershed Alliance (FWA) set-up an online database management system. This enables the FWA to more easily track membership, send membership dues notifications, and promote outreach materials and events. With database management support the Farmer's Watershed Alliance will be able to expand membership and keep members better informed in a timely manner of water quality regulations, upcoming events, and deadlines. With increased membership, more funds will be available to the Farmer's Watershed Alliance to invest in water quality projects. The Farmer's Watershed Alliance will be able to show success through increased membership, number of emails promoting agricultural news, and generating more funds available for water quality projects or outreach materials.

Outputs:

- database management system
- staff training - CCV data management course 26 hours
- membership drive

Outcomes:

- increased membership, wider audience
- enhanced communication with members about water quality preserving practices and learning opportunities
- connecting with the farming community to help encourage change in perception and agricultural management.

Organization: Farmer's Watershed Alliance

Contact Person: Larry Gervais

Mailing Address: PO Box 298
St. Albans, VT 05478

Phone: (802) 782-3823

E-mail: farmerswatershedallianceNW@gmail.com

Website: http://farmerswatershedalliance.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12416
GLFC	100-310-022
Start Date:	1/9/2017
Close Date:	**1/23/2019**
Grant Amount:	$3,988.00
Non-federal Match:	$ 890.00
Total Amount:	**$4,878.00**

2019 Local Implementation Grant

in progress

Champlain Watershed Improvement Coalition of New York

Project Summary

The Champlain Watershed Improvement Coalition of New York (CWICNY) proposes to utilize the support grant to assist with the yearly operations of CWICNY (i.e.- reproduction of education and outreach materials and the 2019 Stormwater Tradeshow). 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: Jim Lieberum

Mailing Address: 394 Schroon River Road Warrensburg, NY 12885

Phone: 518-623.3119

E-mail: jim99@nycap.rr.com

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

Lake Champlain Basin Program

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

2018 Local Implementation Grant

concluded

Chazy Lake Watershed Initiative / Chazy Lake Environmental Committee

Project Summary

Chazy Lake Watershed Initiative (CLWI) 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. CLWI seeks funds to establish a website that can that be used for information-sharing about the Lake and its watershed. CLWI also seeks funds to provide informational pamphlets to keep the public better informed about what they can do to protect and preserve the Lake. Further, CLWI seeks funds for: (a) membership dues to lake alliance groups; (b) workshops for professional development for board members and volunteers and (c) a grant writing course to help secure future funding.

Outputs:

- develop a website and informational pamphlets

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

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 12567
GLFC	0100-319-004
Start Date:	4/12/2018
Close Date:	**9/19/2019**
Grant Amount:	$4,000.00
Non-federal Match:	$ 500.00
Total Amount:	**$4,500.00**

2019 Local Implementation Grant

in progress

Chazy Lake Watershed Initiative Organizational Support

Project Summary

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:

- renew memberships
- purchase software and supplies for the dedicated laptop and printer that was purchased with last year's grant monies to develop print materials to inform residents, as well as renters about the invasive species problem
- 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:	
Grant Amount:	$3,200.00
Non-federal Match:	$ 300.00
Total Amount:	**$3,500.00**

2019 Local Implementation Grant

in progress

ECO AmeriCorps Sponsor Match

Project Summary

ECO AmeriCorps members provide very accessible, yet highly qualified capacity for small watershed groups. FWC's ECO AmeriCorps member will be inventorying the private roads encircling Lake Carmi and creating a prioritized assessment of water quality protection projects to be completed from this inventory. FWC will also be partnering with Northwest Regional Planning Commission (NRPC) for a shared position, for which they will be covering the other half of the sponsor match. In addition to a shared resource and liaison between organizations, a joint position will also provide a very well-rounded experience for the member and will maximize her networking experiences, as well as transferring knowledge and experience between the two organizations.

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: Emily Porter-Goff

Mailing Address: PO Box 79
Franklin, VT 05457

Phone: 802-448-0554

E-mail: emily.franklinwatershed@gmail.com

Website:

Lake Champlain Basin Program

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

2018 Local Implementation Grant concluded

Expanding AsRA Capacity to Prioritize Restoration and Monitoring Projects with GIS

Project Summary

AsRA River Steward completed GIS analysis training by attending the 5-day Watershed Analysis and Hydrologic Modeling course in June 2018 at the US Fish and Wildlife Service National Conservation Training Center. This advanced course taught GIS skills to characterize spatial components of a stream, river, or larger water body as well as the landscape, terrain attributes, and drainage patterns. The course also taught watershed analysis using statistical modelling, hydrological principals and continuity equations, and terrain derivatives to provide insights to questions about water quality, aquatic habitat, restoration, and conservation. The steward will be able to use the skills learned and tools acquired from this course to better understand and manage the threats facing the Ausable watershed.

Outputs:

- 5-day course completed by staff person

Outcomes:

- Completion of this course will help AsRA analyze spatial data and provide insight to complex questions about water quality, quantity, aquatic habitat, restoration, and conservation.
- improve public education and outreach by better understanding the watershed and its threats and improved ability to disseminate that information.

Organization: Ausable River Association

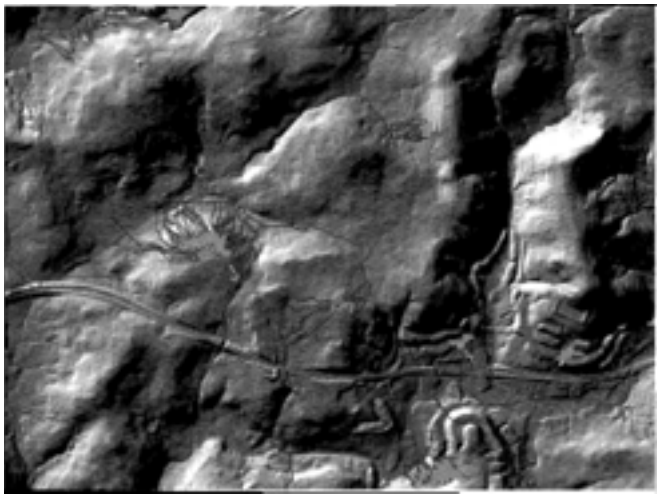
Contact Person: Nicole Pionteck

Mailing Address: PO Box 8
Wilmington, NY 12997

Phone: 518-637-6859

E-mail: nicole@ausableriver.org

Website: www.ausableriver.org



Map created in course: analysis of potentially polluted stream networks based on GIS generated hydrography, DEM terrain analysis, and NLCD Land Classification data.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12536
GLFC	0100-319-004
Start Date:	3/21/2018
Close Date:	**10/16/2018**
Grant Amount:	$2,535.00
Non-federal Match:	$1,455.00
Total Amount:	**$3,990.00**

2019 Local Implementation Grant

in progress

2019 Friends of Northern Lake Champlain Organizational Support

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

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-081
GLFC	0100-323-004
Start Date:	7/15/2019
Close Date:	
Grant Amount:	$4,000.00
Non-federal Match:	$4,150.00
Total Amount:	**$8,150.00**

2018 Local Implementation Grant

concluded

Friends of Northern Lake Champlain Organizational Support Grant

Project Summary

The Friends of Northern Lake Champlain has been working to develop statewide clean water policies and priorities and broad-based adoption of water quality projects by both private land owners and municipalities for over a decade and a half. Now that the Friends has transitioned to a volunteer organization with no full time paid staff, this organizational support grant provides the funding necessary to have a full time ECO AmeriCorps member implementing projects and programs in the watershed. This additional staff capacity will be a key component to support FNLC during this transitional period and to support long term sustainability of FNLC.

Outputs:

- water sampling training
- stromwater project development implementation of 2 remediation grants
- River clean up and education activities

Outcomes:

- education and outreach programming about water quality and resilience

Organization: Friends of Northern Lake Champlain

Contact Person: Dr. Kent E Henderson

Mailing Address: PO Box 58
Swanton, VT 05488

Phone: 802-373-1998

E-mail: directorfnlc@gmail.com

Website: northernlakechamplain.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12537
GLFC	0100-319-004
Start Date:	3/21/2018
Close Date:	**3/14/2019**
Grant Amount:	$4,000.00
Non-federal Match:	$3,100.00
Total Amount:	**$7,100.00**

2019 Local Implementation Grant

in progress

Friends of the Winooski River's New Website

Project Summary

A new web site that is mobile-optimized, easy for staff to edit, and integrated with our other internet communications and commerce tools. Project output will include meeting notes and quarterly reports. 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.

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

Current website homepage

Lake Champlain Basin Program

NEIWPCC Code:	PO 12698
GLFC	0100-323-004
Start Date:	4/1/2019
Close Date:	
Grant Amount:	$3,994.00
Non-federal Match:	$3,248.00
Total Amount:	**$7,242.00**

2018 Local Implementation Grant concluded

Improving Effectiveness of Staff Through Nonprofit Management Certification

Project Summary

Clean water in the Lake Champlain basin has been a focus of the Farmer's Watershed Alliance (FWA) since the organization formed over a decade ago in 2006. A farmer-run organization, the FWA is active in the farming community, implementing on-farm water quality projects in Franklin and Grand Isle counties and acting as an instrument of outreach for water quality issues. The organizations accomplishments are part of what makes the FWA a strong advocate for farmers in Vermont and help culminate in a greater connection between members of fellow organizations, government officials, the local community, and FWA members. Further developing our part time staff member's skill set has allowed the FWA organization to keep members effectively up-to-date on agricultural regulations, on-farm project opportunities that help farmers and protect our natural resources, and local water quality news, all while managing the back end of the organization simultaneously. The timing of this project was ideal because the certification program was offered exactly one year after the Program Coordinator was hired. That allowed the Program Coordinator time to settle into the position, the farming community of northwest Vermont, and find areas of potential organizational improvement that could be developed through this training. The training allowed the FWA Program Coordinator to connect with leaders of fellow local non-profits, expanding upon the FWA's mission.

Outputs:

- Purchase external hard drive, backup all FWA historical member data (4TB)
- attend and complete 10 workshops
- Certificate in Nonprofit Management

Outcomes:

- Clean water in the Lake Champlain basin

Organization: Farmer's Watershed Alliance

Contact Person: Catherine Davidson

Mailing Address: P.O. Box 298
St. Albans, VT 05478

Phone: (802)752-5156

E-mail: FarmersWatershedAllianceNW@gmail.com

Website: http://farmerswatershedalliance.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12525
GLFC	0100-319-004
Start Date:	3/12/2018
Close Date:	**3/13/2019**
Grant Amount:	$3,951.00
Non-federal Match:	
Total Amount:	**$3,951.00**

2018 Local Implementation Grant

concluded

Lake Champlain Committee Education & Outreach Capacity Building

Project Summary

The organizational support grant strengthened the Lake Champlain Committee's (LCC) organizational capacity with an ECO AmeriCorps member dedicated to educational programs and outreach. The ECO AmeriCorps Education & Outreach Coordinator leveraged LCC staff power and helped us expand and implement programs throughout the watershed. They focused on general outreach, the Lake Champlain Paddlers' Trail, cyanobacteria monitoring and aquatic invasive species, areas identified by LCC Board and staff as needing additional educational support.

Outputs:

- informational fact sheets and articles, website and social media postings, event tabling and actual hands-on events to engage citizens in stewardship activities, along with an updated stewardship guide for the Lake Champlain Paddlers' Trail

Outcomes:

- expanded capacity at the Lake Champlain Committee to educate and involve community members in water protection and a more engaged citizenry with greater awareness of personal actions they can take to protect and improve water quality.

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 12540
GLFC	0100-319-004
Start Date:	3/23/2018
Close Date:	**2/11/2019**
Grant Amount:	$4,000.00
Non-federal Match:	$2,500.00
Total Amount:	**$6,500.00**

2019 Local Implementation Grant

in progress

Lake George Association (LGA) Computer Infrastructure Replacement

Project Summary

As with all modern non-profits, LGA is deeply dependent on technology to operate leanly and efficiently as it goes about its business of protecting water quality, protecting the watershed, and creating an informed and involved public – this project will replace failing (or failed) technology in the LGA office. Technology allows LGA to communicate on topics central to its work; create and nurture thriving communities that are focused on clean water; raise needed funds to support and finance protective actions and water monitoring activities; and to store files, project details and images/videos of work and outreach events to share in publications to increase the effectiveness of its message. Of critical need is a network storage server, to allow the LGA to transition the database, document and image storage to an up-to-date, stable, and protected platform. The printer will replace one that is non-functional, and the computers will replace obsolete equipment.

Outputs:

- upgrade of technology: server, computer, laptiops and printer

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:	
Grant Amount:	$4,000.00
Non-federal Match:	$1,080.00
Total Amount:	**$5,080.00**

2019 Local Implementation Grant

concluded

Lake George Land Conservancy Organizational Upgrades

Project Summary

This award funded a number of upgrades to increase staff efficiency and capacity and to stay up-to-date with changing technology to address in-office work as well as field-work. As work culture becomes more computer-reliant, having updated and sufficient technology and computer systems are crucial in terms of office work, internet access, database management, GIS mapping, publication creation and more, especially for a small land trust with limited staff time.

Outputs:

- 4 new monitors, one NEI T10 Trimble Tablet and a surplus of foldable chairs

Outcomes:

- Increased productivity

Organization: Lake George Land Conservancy

Contact Person: Michele Vidarte

Mailing Address: 4950 Lake Shore Dr.
Bolton Landing, NY 12814

Phone: 518-644-9673

E-mail: mvidarte@lglc.org

Website: http://www.lglc.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12680
GLFC	0100-323-004
Start Date:	2/20/2019
Close Date:	**4/9/2019**
Grant Amount:	$4,000.00
Non-federal Match:	$ 113.66
Total Amount:	**$4.113.00**

2018 Local Implementation Grant

in progress

Lamoille River Paddlers Trail Capacity Building and Strategic Planning

Project Summary

This project will build Vermont River Conservancy's capacity to complete water quality and public access projects along the Lamoille River. We facilitate a volunteer steering committee tasked with the creation of the Lamoille River Paddlers Trail, which we seek to strengthen

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
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:	
Grant Amount:	$3,906.00
Non-federal Match:	$1,072.00
Total Amount:	**$4,978.00**

2018 Local Implementation Grant concluded

MRBA Equipment Update

Project Summary

As a primarily volunteer-run organization with one part-time staff member, hosting an ECO AmeriCorps member more than doubles our presence in the watershed. These grant funds were used to replace the ancient laptop and outdated presentation equipment that were available for member's use. With new equipment, the ECO AmeriCorps member was able to update programs and databases, assist with outreach mailings, map creation, update the website and maintaining a social media presence, and be more readily able to present information to watershed residents.

Outputs:

- purchase of equipment to include computer, software and projector
- 3 outreach events
- outreach materials, public presentatiions, website update

Outcomes:

- helping management partners and members of the public become better informed about watershed issues and take actions to improve condition of the Lake
- increasing citizen understanding of LCBP and partner projects funded with public money that are implemented to clean up and protect the Lake
- better informing members of the public are about watershed issues, so they are more likely to take stewardship actions that improve the condition of the Lake
- providing a better understanding of the work and progress toward improvement of the Lake, so citizens will be more supportive of the projects undertaken with public money to clean up and protect the Lake.

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: www.mrbavt.com

A previous ECO AmeriCorps member presenting to the public.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12535
GLFC	0100-319-004
Start Date:	3/21/2018
Close Date:	**12/5/2018**
Grant Amount:	$2,556.00
Non-federal Match:	$2,500.00
Total Amount:	**$5,056.00**

2018 Local Implementation Grant concluded

Project Review and Partner Assistance

Project Summary

This FAA pilots licensing project will allow the LGA to use its piloting services in the same way that it currently uses their GIS training and services – to assist in documenting conditions around the watershed for the LGA and partners, explore and explain the issues that need to be addressed, document them over time and provide full certification as pilots and operators for staff members who are already trained on the equipment.

The technical part of the project will allow the LGA to upgrade its office space and technical capability so it can be used as a planning and operational center for these projects, and allow the LGA and partners to better visualize projects and explain the need for the work to potential partners and agencies.

It will also allow the LGA to have updated technical tools to work with, including the production of more modern educational and outreach materials.

Outputs:

- Completion of FAA pilot license training
- upgrade video/photo software
- select TV and technical/sound system updates

Outcomes:

- correcting nonpoint-source pollution and runoff; repairing eroding shorelines; protecting the Lake from debris that form deltas; and managing stream corridors.

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: http://www.LakeGeorgeAssociation.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12539
GLFC	0100-319-004
Start Date:	3/23/2018
Close Date:	**5/17/2019**
Grant Amount:	$3,300.00
Non-federal Match:	$1,580.00
Total Amount:	**$4,880.00**

2016 Local Implementation Grant

concluded

South Lake Partnership Support

Project Summary

Poultney Mettowee Natural Resources Conservation District (PMNRCD) applied funding to reach across political boundaries and revitalize previous partnerships with New York agencies and individuals, in order to participate more fully in bi-state prioritization and cooperation around water quality issues in the South Lake Champlain watershed.

Outputs:

- two meetings with bi-state partners

Outcomes:

- more participation from PMNRCD at the bi-state level in the South Lake watershed.
- Improving communication and cooperation among diverse groups within the Lake Champlain Basin through education and outreach.
- Building awareness and understanding by communicating progress made by the District.
- Providing hands-on citizen action opportunities to improve the watershed through communication and outreach.
- Increase collaboration with New York partners (River Associations, TU, TNC, CWICNY, NY Rivers, etc.) with a goal of improving the effectiveness of stream projects authorized under New York's Protection of Water Law.
- Facilitate meetings among NY and VT partners to develop a phosphorus load reduction management strategy
- Develop appropriate strategies for coping with projected changes in precipitation and runoff in collaboration with other partners in the Basin (this is an issue in the Mettowee watershed)

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/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12425
GLFC	0100-310-022
Start Date:	1/9/2017
Close Date:	**2/11/2019**
Grant Amount:	$4,000.00
Non-federal Match:	$1,528.00
Total Amount:	**$5,528.00**

2018 Local Implementation Grant

concluded

Warren County Green Infrastructure Feasibility Assessments

Project Summary

The Warren County Soil & Water Conservation District (District) has addressed stormwater and erosion and sediment control through many different projects in the Champlain Basin. This program will assist the District with advancing its ability to design and move shovel ready Green Infrastructure projects forward by having the necessary feasibility studies for specific funders. It is anticipated that 2-4 projects will be developed with this funding and the focus is on green rather than traditional gray infrastructure. The District has had success with local highway departments in starting to utilize these types of projects but needs additional technical/engineering assistance to fully move this initiative forward.

Outputs:

- 2 Green Infrastructure feasibility studies were completed and catalogued for future funding and implementation
- engineering agreement
- Develop project assessments with municipalities on green infrastructure feasibility for 2-4 locations between May and October.
- Project location maps will be developed with information about each specific project.

Outcomes:

- Reduce Nutrient Loading
- Engage and Support Community & Management Partners
- Support Water-Wise Economic Development
- Facilitate changes in behavior and actions of citizens

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:	PO 12519
GLFC	0100-319-004
Start Date:	3/8/2018
Close Date:	**2/27/2019**
Grant Amount:	$3,000.00
Non-federal Match:	$ 525.00
Total Amount:	**$3,525.00**

2019 Local Implementation Grant

in progress

Warren County Forest Managemant Program

Project Summary

The Warren County Soil & Water Conservation District is partnering with the Town of Queensbury and the Town of Lake George to develop a one day municipal training in regards 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 will have 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.

Outputs:

- forest management and municipal requirements training development

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:	
Grant Amount:	$2,500.00
Non-federal Match:	$ 825.00
Total Amount:	**$3,325.00**

2019 Local Implementation Grant

in progress

Watershed Collaborations

Project Summary

Collaborations are important – they amplify the message, widen the audience, and ensure consistency between the organizations that are collaborating. When opportunities arise to collaborate with organizations that also work on water quality in the Missisquoi basin, the MRBA does its best to take advantage of them. MRBA partners with other organizations for workshops, programs, implementation projects, and educational outreach to groups that span the entire watershed and beyond. Fitting these events, as well as the time required to plan them, into the budget can prove difficult, but the MRBA knows the importance of doing so, and these funds will enable more collaborations for water quality work in the Missisquoi Basin. MRBA is lucky to have several strong organizations working to improve water quality in the region, and it is increasingly becoming apparent that more can be achieved together than apart. The funds will be used to cover the time and mileage required for several meetings and site visits.

Outputs:

- planning meetings with regional partners
- site assessments and landowner visits
- 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.

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:	
Grant Amount:	$4,000.00
Non-federal Match:	$1,445.00
Total Amount:	**$4,848.00**

2019 Local Implementation Grant

in progress

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 our own 501(c)(3) organization. This LCBP organizational support grant will go directly towards the purchase of a WUV computer (currently the director is using her own aging personal 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 outcome will be an organization that is ready to succeed as an independent nonprofit with all necessary systems in place.

Outputs:

- report on the newly set up WUV hardware, software and systems.

Outcomes:

- 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: 379 Elm Street
Montpelier VT 05602

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:	
Grant Amount:	$4,000.00
Non-federal Match:	$2,300.00
Total Amount:	**$6,300.00**

INFORMED AND INVOLVED PUBLIC

LCBP

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.

Local Grant Highlights

New York Watershed Alliance: SUNY Plattsburgh developed new education programming to expand the Lake Champlain Sea Grant Watershed Alliance program to three New York K-12 schools.

Water Quality Connects Communities: Missisquoi River Basin Association demonstrated their rainfall simulators 14 times to show how plants with strong roots hold pollution in place much better than bare soils.

First Peoples Lens on the Land and Lake: will enable Shelburne Farms educators to collaborate with local Abenaki Chief Don Stevens to enhance education programming and watershed awareness.

Precision Agriculture Videos: The Farmer's Watershed Alliance produced a video series to demonstrate how farmers are using digital technology to manage impact to natural resources and maximize return on investment.

River Stewardship for Students: The Northern Forest Canoe Trail engaged students in projects to improve recreation access to three rivers. Students constructed an access trail, ramp, and picnic area in Richford, VT.

Ahead of the Storm: Lewis Creek Association will create self-guided "site tours" of AOTS demonstration sites for property owners, schools, and organizations available through the LCA website and local libraries.

River Tours: The Ausable River Association offered three interpretive paddling programs on the West Branch Ausable River at Lake Everest in Wilmington, NY. Participants learned about water quality and wildlife.

Community Engagement: Poultney-Mettowee NRCD In cooperation with the Champlain Valley Native Plant Restoration Nursery (CVNPRN), PMNRCD will provide *Spreading Our Roots* an education and watershed-wide outreach.

Lake Headwaters Education: A Paul Smith's College educator will provide Water Shield workshops and aquatic invasive species spread prevention trainings at community events.

Photos: Lake Champlain Sea Grant, MRBA, NFCT, Ausable River Association, FWA (clockwise from top left)

INFORMED AND INVOLVED PUBLIC

Program Highlights

In addition to managing dozens of grants, LCBP staff oversee numerous projects and provide expertise in collaborative efforts to improve public understanding of water quality and ecosystem issues in the Lake Champlain Basin. In Fiscal Year 2019, LCBP staff:

- Collaborated with partners to expand the "**Raise the Blade**" campaign to encourage people to mow their grass to no shorter than 3 inches to improve soil health and water infiltration.
- Updated the **Lawn to Lake website** to feature Raise the Blade information and refresh the **Don't "P" on Your Lawn** campaign.
- Trained camp counselors to deliver watershed education programs to campers at **YWCA Camp Hochelaga and YMCA Camp Abnaki** in the Champlain Islands.
- Led field trips as part of a new **High School Lake Champlain Stewardship Program** with Plattsburgh and South Burlington High Schools.
- Expanded education efforts at camps, schools, public events, and meetings with the new **LCBP Outreach Steward** program.
- Helped provide teachers with inspiration, knowledge, and skills to teach watershed science through the CBEI **Watershed for Every Classroom** five-credit graduate course.
- Collaborated with Champlain Basin Education Initiative (CBEI) partners to host the **World Water Day** celebration, bringing together artwork, writing, photography, and videography from classrooms in New York and Vermont.
- Staff greeted 27,764 visitors and hosted many classes and organizations at the **LCBP Resource Room** at ECHO, Leahy Center for Lake Champlain.
- Produced four new videos in the ***Diving In*** series focused on opportunities for citizens to get involved in learning about and protecting the watershed.

2018 Local Implementation Grant

concluded

Ahead of the Storm Outreach

Project Summary

LCA refined and updated publicity planning and materials for its "Ahead of the Storm" (AOTS) program, which aims to increase understanding of water quality issues while physically mitigating select stormwater problems in the middle Lake Champlain region. New self-guided tours (one in Charlotte, and one in Hinesburg) are now publicly available through the LCA website and local libraries. New two-page AOTS site packet summaries (that include AOTS goals, design descriptions, photos, budget, and more) are also available on the LCA website. The new tours and summaries are promoted on social media, through press releases, and via AOTS/LCA presentations offered by the Charlotte Library. LCA anticipates giving more presentations at libraries, schools and public places to help introduce and promote the material in the coming years

Outputs:

- Ahead of the Storm Program lay-friendly information site packets
- Self-guided "site tours" of AOTS demonstration sites for property owners, schools, and organizations
- A survey to track effectiveness and attitude change resulting from this program

Outcomes:

- Property owners and students will have a greater understanding and care for water quality issues in the Lake Champlain Valley, and knowledge of how to affect change on a property and/or sub-shed/ catchment level

Organization: Lewis Creek Association

Contact Person: Kate Kelly

Mailing Address: PO Box 313, Charlotte, VT 05445

Phone: (513) 470-7554

E-mail: kristahoffsis@yahoo.com

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

Lake Champlain Basin Program

NEIWPCC Code:	PO 12553
EPA	0994-003-001
Start Date:	4/2/2018
Close Date:	**1/25/2019**
Grant Amount:	$5,815.00
Non-federal Match:	$1,193.00
Total Amount:	**$7,008.00**

2018 Local Implementation Grant concluded

Augmented Reality Sandbox - Lake George Visitors Center

Project Summary

This project included the creation of a new "Augmented Reality Sandbox", which is a cutting-edge interactive educational playspace related to watersheds, topography and geography. This grant provided the funding for the purchase of the Sandbox components and the installation in one of the busiest centers in the Southern Adirondacks: The Lake George Visitors Center.

Outputs:

- Augmented reality sandbox: camera, projector, box materials, sand, computer, display materials, and security equipment
- Signage and educational panels for the Sandbox

Outcomes:

- Promote a better understanding and appreciation of Lake George and Champlain Basin's resources and threats
- Increase awareness of the direct links between land activities, rainfall-runoff, storm drains, and Lake George
- Give the public clear guidance on steps and specific actions that they can take to reduce their impacts on their waterbodies

Organization: Village of Lake George

Contact Person: Dave Wick

Mailing Address: PO Box 791, 26 Old Post Road
Lake George, NY 12845

Phone: 518-361-0985

E-mail: dave@lgpc.state.ny.us

Website: https://villagelakegeorge.digitaltowpath.org:10062/content

Lake Champlain Basin Program

NEIWPCC Code:	PO 12555
EPA	0994-003-001
Start Date:	4/17/2018
Close Date:	**1/25/2019**
Grant Amount:	$3,800.00
Non-federal Match:	
Total Amount:	**$3,800.00**

2014 Local Implementation Grant

concluded

Barre Town and City Stormwater Education

Project Summary

One acre of developed land typically sends three times as much phosphorus to the Lake as one acre of agricultural land. Barre City and Barre Town are highly urbanized municipalities that dominate the Stevens Branch subwatershed. Stormwater runoff reduction in these communities will require mitigation practices to be executed by the municipalities and private property owners alike. Education is important to move both of these constituencies forward and to build public support for municipal actions. This program will use three specific neighborhoods in Barre Town and Barre City to illustrate how the cumulative impact of homeowner actions can reduce stormwater runoff that will protect the local stream and in some cases reduce property damage.

Outputs:

- Draft story maps created by Watersheds Consulting Associates
- a list of stormwater mitigation opportunities;
  deliver municipal presentations;
  host neighborhood walks;
  conduct civic meeting presentations;
  provide online dissemination of information and resources.

Outcomes:

- Use education to empower the general public to reduce phosphorus contributions.
- Reduce the nonpoint source phosphorus load that is being generated by runoff from developed lands in the Basin.

Organization: Friends of the Winooski River

Contact Person: Ann Smith

Mailing Address: PO Box 777
Montpelier, VT 05601

Phone: 802 882-8276

E-mail: info@winooskeriver.org

Website: http://winooskiriver.org/

NEIWPCC Code:	L-2015-053
GLFC	0100-310-004
Start Date:	6/1/2015
Close Date:	**10/23/2018**
Grant Amount:	$7,364.00
Non-federal Match:	$1,500.00
Total Amount:	**$8,864.00**

2018 Local Implementation Grant

in progress

Creating an Educational Resource on Stormwater Management in Video Format to Expand Efforts from Two Municipalities to a Region

Project Summary

NRPC is requesting 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 that will be 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 of 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.

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:	
Grant Amount:	$10,000.00
Non-federal Match:	$ 1,659.00
Total Amount:	**$11,659.00**

2018 Local Implementation Grant

concluded

Diatoms - Nature's Glass

Project Summary

The program's purpose is to develop and implement LCMM's newest multi-age curriculum for school programs, museum visitors, and community audiences. This unique curriculum about diatoms – a vital and ubiquitous part of the freshwater plankton community - will increase understanding of the importance of diatoms in our ecosystem, and feature both the aesthetic and functional attributes of a taxa that is not often studied. During school visits, LCMM educators will lead students and classroom teachers in hands-on activities and academic study about the life history, importance to ecosystems, and population and prevalence of diatoms in Lake Champlain. With the aid of microscopes, students will study diatoms in the field via paddling ecology programs for school groups and summer camps, and create artwork based on what they study for an exhibit in the local community. LCMM curatorial staff will work with educators to develop an interpretive exhibit at the Museum's Basin Harbor campus to explain the importance of diatoms in better depth to students and to the public.

Outputs:

- Pilot new lesson plans with 10 school and camp programs at LCMM and in after-school programs
- Student art exhibit
- Create exhibit for LCMM and *Lois McClure*

Outcomes:

- Enhance educator and student learning about watershed issues
- 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: 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:	PO 12518
EPA	0994-003-001
Start Date:	3/8/2018
Close Date:	**12/21/2019**
Grant Amount:	$10,000.00
Non-federal Match:	$ 2,125.00
Total Amount:	**$10,125.00**

2018 Local Implementation Grant

concluded

Discovering the Ausable: An Aquatic Stewardship Programship Program

Project Summary

This program inspired 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 three years, twenty-six participants have been excited to learn about water quality monitoring and to be a part of data collection that has furthered our understanding of the threats facing the Ausable River.

Outputs:

- Six youth spent time outdoors and learned basic outdoor recreational skills, including Leave No Trace outdoor ethics, basic wilderness preparedness and safety, paddling skills, and overnight camping skills.
- Participants learned the fundamentals of limnology and stream ecology, how to conduct physical, chemical, and biological measurements of both lakes and streams.
- Participants collected vertical profiles of temperature, dissolved oxygen, specific conductance, and pH for Heart Lake and Mirror Lake.
- Participants measured phosphorus, nitrate, chloride, and alkalinity from a surface water sample of both Heart Lake and Mirror Lake.
- Participants assessed the water quality of Marcy Brook using benthic macroinvertebrates.
- Participants produced action plans to improve water quality in their local communities.

Outcomes:

- Heightened environmental literacy of area youth - a key to long-term environmental stewardship

Organization: Adirondack Mountain Club

Contact Person: Seth Jones

Mailing Address: 814 Goggins Road
Lake George, NY 12845

Phone: 518-523-3480 x 19

E-mail: summit@adk.org

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

Lake Champlain Basin Program

NEIWPCC Code:	PO 12520
EPA	0994-003-001
Start Date:	3/8/2018
Close Date:	**5/31/2019**
Grant Amount:	$ 8,142.00
Non-federal Match:	$ 3,252.00
Total Amount:	**$11,394.00**

2018 Local Implementation Grant

concluded

Dog River Conservancy Outreach

Project Summary

The Center for Global Resilience and Security's Dog River Conservancy initiative was focused on bringing together communities around the Dog River in central Vermont, to promote awareness on water resources, ecosystem protection, invasive species, and to maintain the cultural heritage of this pristine body of water. The goal was to make the Dog River a field laboratory for the students of Norwich University and the nearby K-12 schools, as well as community members from Northfield, Williamstown, and Roxbury.

Outputs:

- Development of 5 outreach modules about history, geology, water quality, geomorphology and invasive species geared to both the K-12 learning community and local residents; available online and at libraries
- Dog River field laboratory
- Promotional materials for the modules
- Five community outreach sessions with accompanying lists of attendees, photographs, news releases, and testimonials from each event, as well as number of partnerships
- Research-based articles on the Dog River history and culture
- Fact sheets on the ongoing scientific assessments of the river's geomorphology and water quality
- Five articles, five fact sheets, and eight physical models

Outcomes:

- Well-informed, highly engaged community that can be model stewards of the Dog River and by extension the Winooski watershed and Lake Champlain Basin.

Organization:	Center for Global Resilience and Security, Norwich University
Contact Person:	Dr. Tara Kulkarni, P.E.
Mailing Address:	158 Harmon Dr Northfield, VT 05663
Phone:	(802) 485-2268
E-mail:	tkulkarn@norwich.edu
Website:	http://www.norwich.edu/cgrs/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12572
GLFC	0100-319-004
Start Date:	4/13/2018
Close Date:	**8/23/2019**
Grant Amount:	$ 9,990.00
Non-federal Match:	$ 4,347.00
Total Amount:	**$14,247.00**

2018 Local Implementation Grant

in progress

Education to Action: Asian Clam and Water Chestnut Inventory and Control

Project Summary

The Lake Champlain Committee will develop and implement education and outreach programs on water chestnut control in Lake Champlain. Outputs include meetings 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 along with scheduled informational workshops and water chestnut removal event dates. Outcomes will include increased public awareness of how water chestnut affects lake health and a cadre of trained citizens actively engaged in combatting aquatic invasive species.

Outputs:

- program publicity and recruitment
- identification and prioritization of sites
- informational workshops
- water chestnut removal events

Outcomes:

- increased public awareness of how water chestnut affects lake health and a 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:	
Grant Amount:	$6,527.00
Non-federal Match:	$1,625.00
Total Amount:	**$8,152.00**

2018 Local Implementation Grant

concluded

Engaging Students in Hands-on Stewardship and Interpretation Projects Along the Saranac, Missisquoi, and Lamoille Rivers

Project Summary

This project engaged local high school and college students in a suite of projects designed to create meaningful connections to the waters of the Lake Champlain Basin. Projects included the creation of a river access staircase (Saranac River), a river access trail, ramp, picnic area, and interpretive sign (Missisquoi), and the installation of a new primitive campsite (Lamoille). Each project provided students with the opportunity to work side-by-side with area land managers and learn about the rich natural and cultural landscape of the Lake Champlain Basin.

Outputs:

- Saranac River access in Plattsburgh, NY as part of new greenway initiative - installation of set of stone stairs to provide safe and long-lasting access for paddlers and anglers.
- Missisquoi River improved access, portage trail, and interpretive signage in Richford, VT
- a new primitive campsite along the Lamoille River Paddlers Trail in Johnson, VT

Outcomes:

- Provided students with the opportunity to work side-by-side with area land managers and learn about the rich natural and cultural landscape of the Lake Champlain Basin
- Build awareness and understanding among residents and visitors about Lake Champlain Basin resources and behaviors that contribute to pollution.
- Produce coordinated education programs for students

Organization: Northern Forest Canoe Trail

Contact Person: Noah Pollock

Mailing Address: PO Box 565
Waitsfield, VT 05673

Phone: (802) 496-2285

E-mail: noah@northernforestcanoetrail.org

Website: www.northernforestcanoetrail.org

Completed accessible trail, ramp, and bench

Lake Champlain Basin Program

NEIWPCC Code:	PO 12551
EPA	0994-003-001
Start Date:	4/2/2018
Close Date:	**12/19/2019**
Grant Amount:	$ 9,729.00
Non-federal Match:	$ 5,306.00
Total Amount:	**$13,035.00**

2018 Local Implementation Grant concluded

Franklin Watershed Committee Education and Outreach

Project Summary

The Franklin Watershed Committee (FWC) offered diverse outreach and educational programming at 9 events in 2018. The intention of this programming was to educate the community on water quality topics, with audiences ranging from children's programming to presentations for adults throughout the Franklin community. The educational campaign increased water quality knowledge proficiency, as well as increasing participation in voluntary water quality protection practices throughout the watershed. This project also makes possible the purchase of a Cyano-Scope ® microscope and a projector for use at public outreach events.

Outputs:

- facilitate 9 community outreach programs throughout the camping season of 2018
- purchase of a Cyano-Scope ® microscope kit and a projector

Outcomes:

- educating community members about clean water stewardship empowering them to make small changes in lifestyle to reduce their impact, while educating them about how to make big changes to their properties with a larger impact.

Organization: Franklin Watershed Committee

Contact Person: Emily Porter-Goff

Mailing Address: P. O. Box 79
Franklin, VT 05457

Phone: 802-448-0554

E-mail: emily.franklinwatershed@gmail.com

Website: franklinwatershedcommittee.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12570
EPA	0993-004-001
Start Date:	4/17/2018
Close Date:	**1/23/2019**
Grant Amount:	$7,893.00
Non-federal Match:	$1,140.00
Total Amount:	**$9,033.00**

2016 Local Implementation Grant concluded

Green Stormwater Infrastructure Training for Conservation Managers

Project Summary

Green Stormwater Infrastructure Training for Conservation managers focused on training conservation mangers on the Vermont Clean Water Act and Green Stormwater Infrastructure (GSI) Practices to improve their knowledge, engagement and ability to develop and implement targeted GSI projects within their communities. The conservation partners included professionals from VT Natural Resources Conservation Districts, watershed groups, or municipal planning or conservation commissions. Partners completed site visits on Rutland GSI projects, and conducted a virtual tour of Lamoille GSI sites in the first workshop. The second workshop focused on lakeshore design, river corridor projects, roadside erosion projects and private properties. Each participant was able to discuss a potential project in their own region and received feedback from the partners. The projects were chosen to remediate a stormwater concern identified in a VT ANR Stormwater Mapping Project, tactical basin Plan or a similar technical document.

Outputs:

- Two training events were held for district personnel, one in Rutland, the other in Montpelier, VT pertaining to green stormwater infrastructure. Preliminary planning began. A GSI checklist was developed for conservation managers.

Outcomes:

- provide technical training for municipalities seeking to take greater steps to protect water quality
- provide hands-on citizen action opportunities to improve the watershed and change behaviors that contribute to pollution
- reduce the nonpoint source phosphorus load that is being generated by runoff from developed lands in the Basin
- provide education and technical support to municipalities and homeowners to increase use of rain gardens, rain barrels, and other stormwater reduction techniques

Organization: Lamoille County NRCD

Contact Person: Peter Danforth

Mailing Address: 109 Professional Drive, Suite 2
Morrisville, VT 05661

Phone: (802) 888-9218 ext.113

E-mail: stacey.waterman@vt.nacdnet.net

Website: http://www.lcnrcd.com/

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-052
GLFC	0100-310-004
Start Date:	4/22/2017
Close Date:	**5/31/2019**
Grant Amount:	$ 9,800.00
Non-federal Match:	$ 4,305.00
Total Amount:	**$14,105.00**

2018 Local Implementation Grant

concluded

Hiking the Adirondack High Peaks

Project Summary

This project created a new permanent exhibit at the Adirondack History Museum in Elizabethtown, NY titled *Hiking the Adirondack High Peaks*. The exhibit explored the history of hiking in the Adirondacks, specifically in the High Peaks region, dating back to the mid-19th century, as well as current environmental issues and advocacy. The exhibit includes a variety of educational, interactive, and multi-media sections for visitors of all ages. Topics explored were include Surveying & Mapping, ADK Guides, Trail History & Maintenance, Mountain Pioneers, Regulating & Conservation of the Wilderness, Advocacy Groups, Environmental Changes, and more.

Outputs:

- new permanent exhibit -LCBP funds will support the development of an educational activity area geared to children and students
- Completed the "Discovery Corner", "Climbing Area", and "Conservation, Preservation, and Education" interpretation panel.

Outcomes:

- increased education of the community and visitors of the history (including natural history) of the Adirondack High Peaks and current aspects of land stewardship.
- Educated visitors about environmental stewardship in the High Peaks, advocacy organizations, and best outdoor/wilderness practices (like Leave No Trace)
- provided environmental education, promoted an understanding of land stewardship, and offered an overview of the history of the Adirondack High Peaks.
- Educated and involved youth in the history and environmental stewardship of the Adirondack Mountains.

Organization: Adirondack History Museum/ Essex County Historical Society

Contact Person: Aurora McCaffrey

Mailing Address: PO Box 428/7590 Court Street Elizabethtown, NY 12932

Phone: 518-873-6466

E-mail: amccaffrey@adkhistorymuseum.org

Website: http://www.adkhistorycenter.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12584
GLFC	0100-319-004
Start Date:	5/17/2018
Close Date:	**11/13/2018**
Grant Amount:	$ 8,500.00
Non-federal Match:	$ 2,000.00
Total Amount:	**$10,500.00**

2016 Local Implementation Grant

concluded

Keeping Lake Champlain Beautiful

Project Summary

While the overall Vermont PBS *Saving Our Waters* campaign has many components including three televised town hall forums and three documentaries, this particular project pertained to working with teachers to develop a *Saving Our Waters* On-Line Curriculum for middle and high school students. Twelve curricula segments were developed which included classroom activities and video components tied to Next Generation Science Standards More than 230 teachers have accessed the on-line site since it was completed and several outreach events were completed to alert teachers to it's availability.

Outputs:

- Teachers were identified to provide guidance on the development of *Saving Our Waters* campaign throughout duration for he project, including piloting the curriculum units within their respective classrooms.
- VT PBS produced 12 short videos approximately 7-10 minutes in length derived from the documentary programs for educational purposes and social media outreach. These were made available to schools, colleges, libraries and other community engagement and educational venues and digital platforms.
- The curriculum was bundled and presented on line so that any teacher could access it.

Outcomes:

- engage public awareness of public regulations, and necessary funding, to clean up Lake Champlain while driving an economy that protects and restores healthy waters and all the life that depends on it.

Organization:	Vermont PBS
Contact Person:	Stacie Fagan
Mailing Address:	204 Ethan Allen Avenue Colchester, VT 05446
Phone:	802.654.3669
E-mail:	sfagan@vermontpbs.org
Website:	https://www.vermontpbs.org/

Lake Champlain Basin Program

NEIWPCC Code:	L-2017-049
GLFC	0100-310-004
Start Date:	6/15/2017
Close Date:	**3/12/2019**
Grant Amount:	$10,000.00
Non-federal Match:	
Total Amount:	**$10,000.00**

2018 Local Implementation Grant

concluded

Lake George Floating Classroom 2018

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 us to continue to be effective at raising awareness about water quality issues and affecting behavioral change that will help protect the Lake Champlain Basin, thus we will not only be working to create stewards in our future generations, but we will also be able to be creating more stewards for today.

Outputs:

- 2,107 participants (adults and children) explored different aspects of the lake's ecosystem through sampling techniques and learning how to protect and preserve this living water body..
- Educational programs: May-June (15 schools, 41 trips, 998 participants), Summer (20 programs, 439 participants) September-October (16 schools, 28 trips, 670 participants)

Outcomes:

- raise awareness about water quality issues
- affect behavioral change that will help protect the Lake Champlain Basin
- create stewards for today and future generations.

Organization: Lake George Association

Contact Person: Kristen Wilde

Mailing Address: PO 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:	PO 12564
EPA	0994-003-001
Start Date:	4/9/2018
Close Date:	**5/2/2019**
Grant Amount:	$10,000.00
Non-federal Match:	$14,100.00
Total Amount:	**$24,100.00**

2016 Local Implementation Grant concluded

LCC Cyanobacteria Outreach Campaign

Project Summary

The Lake Champlain Committee developed an outreach campaign to educate citizens about cyanobacteria and actions to take to keep people and pets safe and reduce future bloom frequency. LCC educated people about the triggers for blooms, how to recognize blue-green algae and how to assess risks from exposure. Efforts were concentrated in New York, where fewer public resources have been focused on this issue.

Outputs:

- informational posters, rack cards, fact sheets and weekly reports distributed via mailings, emailings, social media, and presentations.
- Over 20 cyanobacteria public information sessions
- Updated cyanobacteria information on LCC's website

Outcomes:

- educate and inform citizenry about cyanobacteria.

Organization: Lake Champlain Committee

Contact Person: Lori Fisher

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

Phone: 802 658-1421

E-mail: lorif@lakechamplaincommittee.org

Website: http://www.lakechamplaincommittee.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12349
GLFC	0100-310-004
Start Date:	7/24/2017
Close Date:	**8/5/2019**
Grant Amount:	$ 9,800.00
Non-federal Match:	$13,353.00
Total Amount:	**$23,153.00**

2018 Local Implementation Grant concluded

Linking Local Road Maintenance with Water Quality in Lake Champlain Educational Outreach Series

Project Summary

This project engaged a diverse group of stakeholders in Lamoille County on the potential for road maintenance Best Management Practices (BMPs) to reduce erosion and contaminant related runoff from municipal roads, leading to improved water quality in Lake Champlain. The workshop series highlighted practices for minimizing impacts to water quality along local roads, both municipal and private.

Outputs:

- Site visit tours catered to road foremen, municipal employees and local officials
- A private roads workshop with local landowners
- A presentation on erosion and sediment transport by the State of Vermont Department of Environmental Conservation for students in the Department of Environmental and Health Sciences at Northern Vermont University

Outcomes:

- Increase awareness and implementation of BMPs in Lamoille County, and reduce erosion and water quality impacts from municipal and private roads in the region.
- Increase knowledge of the benefits of BMPs and conservation practices
- Inform key stakeholders about watershed issues and the role local actions can play in working towards a healthier Lake Champlain Basin
- Strengthen partnerships between the Lamoille County Planning Commission, partner organization the Lamoille County Conservation District, town road management staff, state agencies, conservation organizations, and Northern Vermont University
-

Organization: Lamoille County Planning Commission

Contact Person: Ryan Murphy

Mailing Address: PO Box 1637
Morrisville, VT 05661

Phone: 802-888-4548

E-mail: ryan@lcpcvt.org

Website: https://www.lcpcvt.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12552
EPA	0994-003-001
Start Date:	4/2/2018
Close Date:	**7/12/2019**
Grant Amount:	$ 9,028.00
Non-federal Match:	$ 2,760.00
Total Amount:	**$11,788.00**

2018 Local Implementation Grant

concluded

MRBA Outreach Series

Project Summary

The MRBA Outreach Series is a multi-pronged approach, reaching a wide range of our community members in order to discuss the importance of maintaining and improving water quality in the watershed. MRBA reached school-aged students through educational presentations and programs, and also partnered with area schools to hold riverbank clean-ups, and used the trash to create works of art that were displayed to engage other watershed residents. Additionally, several community river clean-up paddles were held, enabling MRBA to show off the recreational values of the river while simultaneously working to remove any trash that plagues it.

Outputs:

- educational programs at schools in the watershed and community gatherings
- river rubble recycling/clean-up events with students and creation of re-use artwork piece
- river clean-up paddles

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: 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:	PO 12563
GLFC	0100-319-004
Start Date:	4/9/2018
Close Date:	**5/31/2019**
Grant Amount:	$5,230.00
Non-federal Match:	$3,120.00
Total Amount:	**$8,350.00**

2016 Local Implementation Grant concluded

Natural Heritage & Head Start Education Tank

Project Summary

This project increased Burlington waterfront visitor's awareness of the Lake Champlain Basin's natural heritage and aquatic species through the display of live aquatic species in decline. Species were displayed in a 200 gallon aquarium in the free public lobby. The display was supported by interpretive graphic panels, which conveyed information on historic declines, ongoing restoration efforts, and head started species.

Outputs:

- The display tank, base and stand were fabricated, plumbed, furnished and installed in the free space lobby area in ECHO.
- Natural history information on natural heritage program was compiled with assistance from Vermont Agency of Natural Resources staff
- Content was generated for an electronic platform
- A public program for premier the displays premier species, spotted turtles, was generated by ECHO Animal Care Department staff

Outcomes:

- increase public awareness of the historic decline and on-going restoration efforts of the Basin's natural, aquatic heritage
- increase success of "head started" species in decline, as identified by state or federal Fish & Wildlife departments

Organization: ECHO, Leahy Center for Lake Champlain

Contact Person: Nina Ridhibhinyo

Mailing Address: 1 College St
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:	L-2017-012
GLFC	0100-310-004
Start Date:	3/25/2017
Close Date:	**4/4/2019**
Grant Amount:	$ 9,800.00
Non-federal Match:	$ 8,963.00
Total Amount:	$18,763.00

2018 Local Implementation Grant concluded

Native Plants: Sowing the Seeds of Love

Project Summary

In cooperation with the Champlain Valley Native Plant Restoration Nursery (CVNPRN), PMNRCD provided education and watershed-wide outreach, promoting the benefits of native plants and recruiting barren streambank and lakeshore properties for inclusion in forested riparian/shoreline buffer planting programs. The outcomes include additional community members with knowledge and appreciation about the myriad benefits of forested riparian buffers, native plants, the Restoration Nursery, and the implementation (through other funds) of riparian plantings.

Outputs:

- participation in community events around the watershed promoting native plants and the benefits of forested riparian buffers
- Recruitment of potential native plant restoration sites within the Poultney-Mettowee watershed
- Facilitation of hands-on citizen action opportunities focused on the benefits of native plant restoration to watershed health
- Oversight of four CVNPRN interns involved in service learning projects

Outcomes:

- Changed behaviors resulting from participation in hands-on citizen action land restoration projects that removed invasive species and added native trees, shrubs, and herbaceous plant species to the landscape. Reducing Phosphorus Pollution through creation of forested riparian buffers.
- Supporting partnership opportunities to increase public, youth, and local business involvement to clean up rivers and lakes

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

GMC students and faculty celebrate and mulch a native tree 'forest assemblage' installed on campus.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12571
EPA	0994-003-001
Start Date:	4/17/2018
Close Date:	**7/1/2019**
Grant Amount:	$10,000.00
Non-federal Match:	$10,59500
Total Amount:	**$20,595.00**

2018 Local Implementation Grant concluded

Precision Agriculture Technology on Farms in Vermont Video Series

Project Summary

The Farmer's Watershed Alliance (FWA) used the funds to create and publish a series of short precision agriculture videos. These videos demonstrated how precision agriculture technology is being used on farms in Vermont to plant seeds, apply fertilizer to fields, apply manure, harvest crops and feed animals with a high degree of accuracy while recording valuable data that can be used to manage impact on natural resources and maximize return on investment. These educational videos have been distributed online, and played at the FWA booth at events, so that they reach a diverse audience and wide variety of community members. The FWA also hosted two related field days around precision agriculture.

Outputs:

- 6 informational videos
- Purchase the Camcorder, memory card, and protective carrying case
- Spring and Summer field days
- informational bulletins and fliers

Outcomes:

- reduction of phosphorus and field runoff
- Reduction in fertilizer applied by large and medium farms within critical watersheds through increased accuracy of application.
- Members of the public who are informed about watershed issues.
- Better understanding of LCBP's work and progress that will also lead citizens to be more supportive of the projects undertaken with public money to clean up and protect the Lake.

Organization: Farmer's Watershed Alliance

Contact Person: Darlene Reynolds

Mailing Address: P.O. Box 298
St. Albans, VT 05478

Phone: (802)752-5156

E-mail: FarmersWatershedAllianceNW@gmail.com

Website: http://farmerswatershedalliance.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12526
GLFC	0100-319-004
Start Date:	3/23/2018
Close Date:	**9/24/2019**
Grant Amount:	$4,885.00
Non-federal Match:	$4,000.00
Total Amount:	**$8,885.00**

2018 Local Implementation Grant

concluded

Reducing Impacts From Faulty and Under Functioning Septic Systems Lake Champlain Basin-Wide, Through Targeted Outreach to Contractors and Lake Associations

Project Summary

WNRCD developed awareness among homeowners and septic professionals regarding the water quality issues associated with failing or under-functioning septic systems and increased their knowledge of actions and available resources to minimize negative impacts. The WNRCD with partner organizations educated those who install, inspect, regulate and have concerns about onsite septic systems to reduce excessive nutrient impacts from under-functioning and failing systems to local waterbodies.

Outputs:

- conference focusing on sharing innovative systems for small lots, available technology and resources
- training for inspectors
- Two factsheets will be drafted focusing on Best Management Practices for the public
- four septic socials will be conducted within lakeshore communities
- social marketing campaign.

Outcomes:

- Lake Associations and contractors will become aware of water quality issues associated with failing or under functioning OWTS and understand actions and resources they can utilize to minimize negative impacts.
- Contractors attending the workshop, receiving the inspection training will conduct site inspections during property transfer in a more consistent manner to insure systems are functioning properly within the watershed.

Organization: Winooski Natural Resources Conservation District

Contact Person:

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

Phone: (802) 778-3178

E-mail: info@winooskinrcd.org

Website: www.winooskinrcd.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12574
EPA	0994-003-001
Start Date:	4/30/2018
Close Date:	**9/6/2019**
Grant Amount:	$6,600.00
Non-federal Match:	$2,000.00
Total Amount:	**$8,600.00**

2018 Local Implementation Grant concluded

South Champlain Historical Ecology Project (SCHEP)

Project Summary

The South Champlain Historical Ecology Project examined human-environment interaction within the southern Lake Champlain basin over a 12,000 year period. Interdisciplinary research created a more inclusive and far-reaching history for this critical part of Lake Champlain. SCHEP has conducted three seasons of archaeological field research at the Galick Site in West Haven, VT. This project supported 15 site visits to schools, 10 on-site investigations in which students assisted with archeologic dig excavations. Members of the Elnu Abenaki participated in on-site visits to present indigenous perspectives on their history and culture. In addition, 59 new adult volunteers participated in the programming.

Outputs:

- 15 class visits - grades 4-12 (165 students)
- host 10 school groups (128 K-12 students) to participate in field excavations
- volunteer recruitment - 59 new signups
- Educational materials including handouts, artifact displays, maps, and images
- Presentations at local libraries and community centers

Outcomes:

- enhance knowledge and perception of local heritage resources
- Enhanced the project's local impact through the outreach and educational activities
- Educated local populations about the presence and sensitivity of cultural heritage resources

Organization: South Champlain Historical Ecology Project

Contact Person: Matthew D. Moriarty

Mailing Address: Castleton University
Leavenworth Hall Room 152
Castleton, VT 05735

Phone: (802) 353-3465

E-mail: schep.research@gmail.com

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

4th grader learning about Abenaki material culture with Roger Longtoe, Chief of Elnu Abenaki, Galick Farm.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12557
GLFC	0100-319-004
Start Date:	4/2/2018
Close Date:	**1/23/2019**
Grant Amount:	$10,000.00
Non-federal Match:	
Total Amount:	**$10,000.00**

2018 Local Implementation Grant

concluded

South Hero Land Trust Lands & Waters Program

Project Summary

The goal of South Hero Land Trust's Lands & Waters Education Program was to establish strong and positive connections between community members and the land and water of the Champlain Islands, and to build a culture of responsibility and stewardship in South Hero, VT. Our project was two-fold. First, we brought a year-long Master Naturalist program to South Hero, in which community members explored the geologic history of Lake Champlain and Islands, learned about natural communities, investigated land use practices, and implemented service projects with a focus on education and stewardship. Second, we worked with teachers and parents at Folsom School to expand and transform the garden space and public trails behind the school into a true outdoor classroom and community hub for environmental education, nature interpretation, and volunteer involvement.

Outputs:

- Educational programs for children and adults in South Hero, with a focus on natural history, water quality, stewardship along with appropriate infrastructure and tools for implementing these programs
- Year-long Master Naturalist program for community members
- Service projects with a focus on education and stewardship
- Expanded the garden space and public trails behind the Folsom School for an outdoor classroom

Outcomes:

- establish strong and positive connections between community members and the land and water of the Champlain Islands
- build a culture of responsibility and stewardship in South Hero, VT

Organization:	South Hero Land Trust
Contact Person:	Emily Alger
Mailing Address:	PO Box 455 South Hero, VT 05486
Phone:	802-372-3786
E-mail:	emily@shlt.org
Website:	www.shlt.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12569
GLFC	0100-319-004
Start Date:	4/13/2018
Close Date:	**9/11/2019**
Grant Amount:	$10,000.00
Non-federal Match:	$ 6,164.00
Total Amount:	**$16,164.00**

2016 Program Grant

concluded

State of the Lake Exhibit and Program

Project Summary

This project will broaden the exposure of the *State of the Lake Report* (SOL) to 150,000 ECHO guests and one million Burlington Waterfront visitors. The goal was to engage the public in SOL through graphic displays, storytelling, and hands-on scientific inquiry. This project is a partnership effort in which LCBP provides SOL graphics and interpretation, the partners identify relevant *Opportunitie for Action* priorities, and ECHO provides overall exhibit design, venue space, and dynamic interactive engagement with the visiting public.

Outputs:

- new exhibit on the Center floor

Outcomes:

- Enhance educator and student learning about watershed issues.
- Build awareness and understanding among residents and visitors about Lake Champlain Basin resources and behaviors that contribute to pollution
- Use education to empower the general public to reduce phosphorus contributions.

Organization: ECHO, Leahy Center for Lake Champlain

Contact Person: Nina Ridhibhinyo

Mailing Address: 1 College St
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:	L-2017-011
EPA	993-004-002
Start Date:	5/1/2016
Close Date:	**6/30/2019**
Grant Amount:	$28,793.00
Non-federal Match:	$ 3,390.00
Total Amount:	**$32,183.00**

2018 Local Implementation Grant

concluded

Ticonderoga and America's First Great Lake: Maritime History, Trades and Expeditionary Learning

Project Summary

Fort Ticonderoga's unique and immersive educational approach will integrate Ticonderoga's naval history on the strategic Hudson/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. LCBP funds were used to purchase wood, tools and other materials for construction of a bateau, boathouse and hands-on learning lab components, and for the salary for staff to complete the final materials for the project.

Outputs:

- 1000 guests were reached, including VT and NY students, and teachers in the Teacher Institute
- Interpretive story researched and written; tours offered May through October
- Constructed bateau and boathouse, including hands-on "maritime laboratory"

Outcomes:

- Immersive maritime education programs
- Curriculum that meets classroom educational goals while utilizing Fort Ticonderoga's unique expeditionary learning approach

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:	PO 12576
GLFC	0100-319-004
Start Date:	4/30/2018
Close Date:	**5/2/2019**
Grant Amount:	$10,000.00
Non-federal Match:	$56,367.00
Total Amount:	**$66,367.00**

2018 Local Implementation Grant

concluded

Twinfield High School Stormwater Education Project

Project Summary

One acre of developed land typically sends 3 times as much phosphorus to the lake as one acre of agricultural land. The Twinfield Union School building and associated parking lots and driveways comprise approximately 5 acres of impervious surface and therefore generate a significant volume of stormwater. Friends of the Winooski staff and Twinfield teachers developed and provided a 4-6 week series of stormwater-related activities and presentations using the school campus as an outdoor laboratory to educate students and the larger school community about the effects of stormwater runoff on water quality, erosion, and flooding. In a culminating project, students designed stormwater mitigation practices for the school property. This project focused on encouraging the school community to apply their knowledge to reduce stormwater runoff both from the school and at home.

Outputs:

- 4-6 week series of stormwater-related activities and presentations, including a stormwater audit of school grounds, riparian tree/shrub planting, soil testing, designing a raingarden and working a community outreach event

Outcomes:

- reduction of phosphorus and stormwater runoff
- Educate students and the larger school community about the effects of stormwater runoff on water quality, erosion, and flooding
- Encourage the school community to apply their knowledge to reduce stormwater runoff both from the school and at home

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@winookiriver.org

Website: https://winooskiriver.org/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12554
EPA	0994-003-001
Start Date:	4/2/2018
Close Date:	**5/31/2019**
Grant Amount:	$4,409.00
Non-federal Match:	$3,128.00
Total Amount:	**$7,537.00**

2018 Local Implementation Grant

concluded

Wacky Water Round 3

Project Summary

Summer Youth Programs throughout Essex County within the Lake Champlain Basin have come to thoroughly enjoy the education provided by Essex County Soil and Water Conservation District staff. Staff will expand on watershed related topics covered as well as revisiting favorites that have been utilized in successful programming over several years. The output for the project is to educate youth across Essex County, NY utilizing different topics, hands on projects and learning.

Outputs:

- 6 weeks of programming at summer camps for youth in grades 1-6
- A presentation to the Youth Bureau Board at the end of the program, including photographs of the various topics covered
- 7 communities served: Westport, Willsboro, Keene, Elizabethtown, Crown Point, Moriah, and Ticonderoga

Outcomes:

- Educate youth about watersheds
- opics covered include water conservation/qualities/cycle, and usages; how agriculture, forests, and urban areas impact the watershed; what is a watershed; and organisms, from wildlife to macroinvertebrates, that are affected by the watershed

Organization: Essex County Soil and Water Conservation District

Contact Person: Laura Generous

Mailing Address: P.O. Box 407, 3 Sisco Street Westport, NY 12993

Phone: 518-962-8225

E-mail: lbenedict@westelcom.com

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

Youth in grades 1-6 working together to compete against another team filling a barrel in "The Long Haul". Teams work together to figure out the best way to conserve water so they can fill their barrel quickest. Teams are challenged to move water quickly and sloppy, or slow and steady. Versions of this activity also introduce historical concepts on how water was manually transported.

Lake Champlain Basin Program

NEIWPCC Code:	PO 12521
GLFC	0100-319-004
Start Date:	3/16/2018
Close Date:	**1/23/2019**
Grant Amount:	$7,000.00
Non-federal Match:	$2,000.00
Total Amount:	**$9,000.00**

2018 Local Implementation Grant

concluded

Waterfront Septic Outreach & Education

Project Summary

Participants become more aware of the impact that their septic systems could be having on water quality and also became more educated on the importance of proper design and maintenance of these systems. Four outreach events were held with a total of 108 attendees. In addition to presentations given by septic system experts and Soil & Water staff, attendees were supplied with informational packets and water saving kits to reduce septic system water volume.

Outputs:

- Attendees learned about septic system operation
- Informed public about reducing total water consumption and discharge into a septic system
- Provided hands-on citizen action opportunities to improve the watershed

Outcomes:

- promoting better understanding and appreciation of the Lake Champlain Basin
- providing hands-on citizen action opportunities to improve the watershed, using education to empower the general public to reduce phosphorus contributions to the lake
- directly reducing phosphorus inputs to the lake.

Organization: Clinton County Soil & Water Conservation District

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/

Lake Champlain Basin Program

NEIWPCC Code:	PO 12562
EPA	0994-003-001
Start Date:	4/9/2018
Close Date:	**4/4/2019**
Grant Amount:	$10,000.00
Non-federal Match:	
Total Amount:	**$10,000.00**

2014 Local Implementation Grant

concluded

Watershed Education for Backyard and Small Farmers

Project Summary

Developed and implemented a series of six local educational programs for small farms, homesteaders, and backyard farmers in our region. The programs provided information to small farmers and homesteaders about the TMDL, living in a watershed, nutrient management, simple conservation practices and Best Management Practices, soil health, and understanding and using the Accepted Agricultural Practices.

Outputs:

- Developed schedule, program components and co-presenters for the various topics
- Produced educational materials and workshop content for presentations to participant
- Included posters and hardcopy mailings, and website and email marketing
- Held four workshops

Outcomes:

- Inform backyard farmers and small farmers in our region about the importance of the AAPs so that they may work to prevent nutrients from entering our waterways.
- Improve the understanding of individuals that have homesteads that would be considered small farms in Franklin County.
- Increase awareness of programs that can help with nutrients and best management practices.

Organization: Friends of Northern Lake Champlain

Contact Person: Kent Henderson

Mailing Address: PO Box 58
Swanton, VT 05488

Phone: 802 355-0694

E-mail: hugamoo@comcast.com

Website: http://www.northernlakechamplain.org/

Lake Champlain Basin Program

NEIWPCC Code:	L-2015-037
GLFC	0100-310-004
Start Date:	4/15/2015
Close Date:	**10/23/2019**
Grant Amount:	$ 7,500.00
Non-federal Match:	$ 4,000.00
Total Amount:	**$11,500.00**

2018 Education and Outreach Project concluded

WEC 2018: Day 6-11

Project Summary

Amy Demarest will serve as the primary instructor of record through St. Michael's College in Colchester, Vermont for the Watershed for Every Classroom course 2018-2019. The Watershed for Every Classroom Course, now in its seventh iteration, may be taken for credit or not. Five graduate credits are available through St. Michael's College. Seven or more participants are expected in 2018-2019 with the majority taking the course for credit. The course is taught cooperatively with the partners of the Champlain Basin Education Initiative.

Educators traveled through New York, Vermont and Quebec to experience the watershed first hand. They met with field biologists, natural resource specialists, economic leaders from several fields, and explored the cultural heritage and natural resources of the watershed. They paddled, toured industries, rowed long boats, assisted with habitat restoration projects, studied phenology, incorporated their learning into curriculum materials and used technology to complete several assignments. Their end product was personalized, teachable units on watersheds.

Outputs:

- personalized, teachable units on watersheds
- Course binder: Course expectations, grading criteria, readings, assignments, example materials for curriculum design for participants and CBEI partners
- 6 days of training
- One-on-one meetings with participants

Outcomes:

- educators would more fully understand watershed issues, service learning opportunities for students and how to make local community connections

Organization: Our Curriculum Matters

Contact Person: Amy Demarest

Mailing Address: 16 Wilson
Burlington, VT 05401

Phone: 802 363-1361

E-mail: abdvermont@gmail.com

Website: www.ourcurriculummatters.com

Lake Champlain Basin Program

NEIWPCC Code:	PO 12602
EPA	0993-004-002
Start Date:	6/29/2018
Close Date:	**9/12/2019**
Grant Amount:	$3,600.00
Non-federal Match:	
Total Amount:	**$3,600.00**

2018 Local Implementation Grant

concluded

Wetland Identification and Delineation Training

Project Summary

This project retained the services of a certified wetlands biologist who provided class and field training to participants to assist with the ecological identification and field delineation of wetlands and their components for planning and project purposes. The goal of this project was for participants to make informed resource decisions to reduce impacts on wetland habitats and educate the attendees on the importance of alternative designs and projects.

Outputs:

- Wetland ID and Delineation Training
- training supplies and materials
- assist with the ecological identification and field delineation of wetlands and their components for planning and project purposes
- Provide class and field training for 14 professionals from the Lake Champlain Watershed
- Educate attendees on the importance of alternative designs and projects
- Aid planning and other staff in making informed resource decisions to reduce impacts on wetland habitats

Outcomes:

- awareness of healthy ecosystems
- conservation of vulbnerable habitat

Organization:	Warren County SWCD
Contact Person:	Jim Lieberum
Mailing Address:	394 Schroon River Road Warrensburg NY 12885
Phone:	518.623.3119
E-mail:	jim99@nycap.rr.com
Website:	www.warrenswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	PO 12556
EPA	0994-004-001
Start Date:	4/2/2018
Close Date:	**3/22/2019**
Grant Amount:	$ 7,888.00
Non-federal Match:	$ 3,000.00
Total Amount:	**$10,888.00**

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**

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**

2019 Local Implementation Grant

in progress

Spreading Our Roots: Engaging the Local Community

Project Summary

In cooperation with the Champlain Valley Native Plant Restoration Nursery (CVNPRN), PMNRCD will provide education and watershed-wide outreach to a wide variety of individuals.

Outputs:

- two workshops including developed material for future presentations
- participation in 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 and expanded communication.

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

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

GMC students volunteering at CVNPRN after their class talk and tour of the nursery.

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-062
EPA	0995-004-001
Start Date:	5/16/2019
Close Date:	
Grant Amount:	$23,207.00
Non-federal Match:	$ 9,846.00
Total Amount:	**$33,053.00**

2019 Local Implementation Grant

in progress

Stream Monitoring Program and Outdoor Classroom

Project Summary

The Lake George Association's Stream Monitoring Program gives 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 conduct water quality monitoring and learn about stream ecology, pollution, and conserving local streams. They are left with the knowledge that even if they can't see a waterbody, their actions on land can still influence it. Creation of an outdoor classroom area along the stream will enhance the students' outdoor learning experience which is a foundation of raising the next generation of active citizens who take care of their natural and human communities.
At least 50 stream monitoring programs will be conducted for local schools.

Outputs:

- Creation of an outdoor classroom at the Lake George Recreation Center
- interpretative panels about streams
- School Stream Monitoring field trips
- Summer Stream Monitoring Programs

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:	
Grant Amount:	$16,820.00
Non-federal Match:	$ 1,351.00
Total Amount:	**$18,171.00**

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

Mailing Address: 86 Glen St.
Glens Falls, NY 12801

Phone: 518-792-3856

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

Lake Champlain Basin Program

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**

2019 Program Grant

in progress

State of the Lake Exhibit II

Project Summary

This project will broaden the exposure of the *State of the Lake Report* (SOL) to 150 thousand ECHO guests and 1 million Burlington Waterfront visitors. The goal is to engage the public in SOL through graphic displays and storytelling. This project is a partnership effort in which LCBP provides SOL graphics and interpretation, the partners identify relevant *Opportunities for Action* priorities, and ECHO provides overall exhibit design, venue space, and dynamic interactive engagement with the visiting public.

Outputs:

- Develop wayside and interpretive exhibits, brochures, fact sheets, and other print materials that explain watershed issues and concepts.
- Outreach materials: Produce web content and print materials that describe lake-friendly products and practices.
- one exterior exhibit in ECHO free public space
- One interior interactive exhibit

Outcomes:

- Interpret technical information for the public

Organization: ECHO, Leahy Center for Lake Champlain

Contact Person: Nina Ridhibhinyo

Mailing Address: 1 College St
Burlington, VT 05401

Phone: (802)864-1848 x 142

E-mail: nina@echovermont.org

Website: http://www.echovermont.org/

NEIWPCC Code:	LS-2019-073
EPA	0994-003-001
Start Date:	4/30/2019
Close Date:	
Grant Amount:	$28,793.00
Non-federal Match:	
Total Amount:	**$28,793.00**

2019 Program Grant

in progress

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 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 aims to produce 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 will be utilized. This documentary approach will strengthen the content and convey 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 inspire involvement. From there, the goal by showing success stories and the need for more action, is that people will get involved, 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 will be multiple opportunities for a wide range of viewers to relate and subscribe to change.

Outputs:

10 two minute videos, 5 thirty second videos, and a 30-minute documentary and three 30 second animations

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

NEIWPCC Code:	LS-2019-079
EPA	0994-003-001
Start Date:	6/25/2019
Close Date:	
Grant Amount:	$47,825.00
Non-federal Match:	
Total Amount:	**$47,825.00**

2019 Local Implementation Grant

in progress

Adirondack Coast Cultural Alliance (ACCA): Museum Days

Project Summary

ACCA will partner with more than a dozen museums, arts and history centers, and historic sites this June to hold an annual education and outreach event, Museum Days. The event will be held in conjunction with the NYS Path Through History weekend and serves to attract visitors and unite the community under the umbrella of our region's rich cultural offerings. Participating organizations and historic sites will be free to the public for one weekend (two days) in June for special events and exhibits. ACCA will work in partnership with local media and tourism outlets in addition to the Clinton-Essex-Franklin Library System, North Country Homeschoolers and eight public school districts.

Outputs:

- Coordinate outreach and education events throughout the region, highlighting local art and history
- Develop print and digital promotional materials
- Interpret survey results and participation data collected during Museums Days in the region
- Partner with local schools, libraries and homeschool groups

Outcomes:

- Increase public awareness of local and regional art and history
- 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:	
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**

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/

Lake Champlain Basin Program

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**

2019 Local Implementation Grant

concluded

Creating a Culture of Clean Water in Franklin

Project Summary

The Franklin Watershed Committee (FWC) completed 12 education and outreach projects that aimed to create behavioral and societal level change to foster watershed stewardship within the Lake Carmi watershed. Their workshops were arranged throughout the year as requested and materials, including written articles and handouts, were developed and tailored to meet to the goals and learning level of the target audience. FWC hosted events including: BugWorks in Marsh Brook, a Paddling Workshop, and Homesteading on the Hill. Workshop topics included: Algae in the ecosystem, Water quality of Lake Carmi tributaries, Development in Ecosystems, Nutrient management through lake protection plans, Reducing you watershed footprint, and Making your own septic and eco/friendly cleaning products.

Outputs:

- 6 new education and outreach presentations/ workshop-items created
- 3 water-quality related articles submitted to the Lake Carmi Camper's Association
- 12 education and outreach projects completed

Outcomes:

- Presented topics reached the eyes and ears of over 350 people
- Increased community knowledge of water-quality related topics in the Lake Carmi Watershed
- Increase of hands-on learning opportunities tailored to a wide range of age and community groups

Organization: Franklin Watershed Committee

Contact Person: Robert Evans

Mailing Address: PO Box 79
Franklin, VT 05457

Phone: 802-448-0554

E-mail: revans@margolishealy.com

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

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-045
EPA	0995-004-001
Start Date:	5/6/2019
Close Date:	**8/21/2019**
Grant Amount:	$ 9,990.00
Non-federal Match:	$ 450.00
Total Amount:	**$10,430.00**

2019 Local Implementation Grant

in progress

Discovering the Ausable: An Aquatic Stewardship Program

Project Summary

This program will inspire passion for the environmental resources while providing practical hands-on skills in the field of aquatic ecology. Over the past four years, thirty-two participants have been eager to learn about water quality monitoring and be a part of a data collection team that has furthered our understanding of the threats facing the Ausable River.

Outputs:

- Provide training in sampling techniques, wilderness preparedness, environmental ethics, and camping skills
- Develop protocols for monitoring water quality, including but not limited to phosphorus, nitrates, chlorides, alkalinity, and macroinvertebrates
- Provide 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:	
Grant Amount:	$ 9,061.00
Non-federal Match:	$ 3,521.00
Total Amount:	**$12,582.00**

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**

2019 Local Implementation Grant

in progress

First People's Lens on the Land and Lake

Project Summary

The First Peoples Lens on the Land & Lake project will enable Shelburne Farms educators to collaborate with local Abenaki Chief Don Stevens to enhance education programming and watershed awareness. The project is designed to engage the community in creating a sustainable future for the lake and surrounding landscape. It will bring 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:

- Develop new curriculum or program outlines that include stories from Abenaki perspective either in person or through various technologies
- Revise 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:

- Embed messaging of indigenous past and current relationships with the land so that all visitors and program participants are exposed to a balanced history
- Enrich 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:	
Grant Amount:	$10,000.00
Non-federal Match:	$ 9,735.00
Total Amount:	**$19,375.00**

2019 Local Implementation Grant

in progress

Immersive Maritime Exploration Program

Project Summary

Students will engage 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 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:

- Develop skills in historical trades
- Experiential applications of math and science

Outcomes:

- Develop a better understanding of processes of historical maritime trades
- 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:	
Grant Amount:	$ 6,500.00
Non-federal Match:	$47,500.00
Total Amount:	**$54,000.00**

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

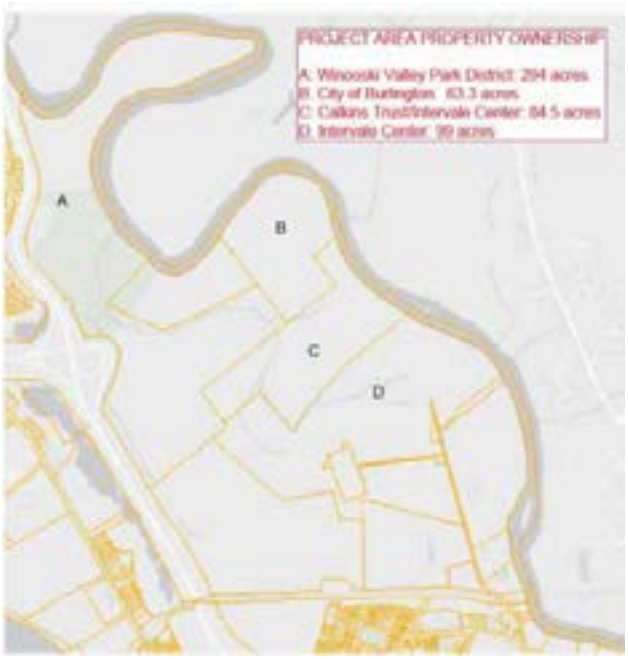
Contact Person: Lauren Chicote

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

in progress

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 will conduct outreach at public events and institutions in the headwaters of the Lake Champlain Basin in the Saranac Lake and Lake Placid region.

Outputs:

- education and outreach programs at community events
- Water Shield workshops and aquatic invasive species spread prevention trainings

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:	
Grant Amount:	$8,000.00
Non-federal Match:	
Total Amount:	**$8,000.00**

2019 Local Implementation Grant

in progress

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:

- Spring Floating Classroom field trips
- Summer public programs
- Fall Floating Classroom field trips

Outcomes:

- 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:	
Grant Amount:	$10,000.00
Non-federal Match:	$14,500.00
Total Amount:	**$24,500.00**

2019 Local Implementation Grant

in progress

Lewis Creek Association Ahead of the Storm Program Education

Project Summary

This project will provide 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 will also train 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
- Storm water 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:	
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**

2019 Local Implementation Grant

in progress

Moving North: LCMM Professional Development Comes to North Lake

Project Summary

This project will bring educational and professional development courses to the St. Albans area for the summer of 2019. The target audience is 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:

- An 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/

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-027
EPA	0995-004-001
Start Date:	4/1/2019
Close Date:	
Grant Amount:	$ 9,944.00
Non-federal Match:	$ 750.00
Total Amount:	**$10,694.00**

2019 Local Implementation Grant

in progress

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 will include three interpretive paddling trips, two themed interpretive hikes, and one field trip to AsRA's program sites with hands-on demonstrations of their field survey methods. An updated self-guided paddling nature trail brochure to complement the interpretive paddling trips will be 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:	
Grant Amount:	$ 9,735.00
Non-federal Match:	$ 3,554.00
Total Amount:	**$13,289.00**

2019 Local Implementation Grant

in progress

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 will focus 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 will be exposed to water quality and conservation issues in the region through interactions and workshops led by project partners. NFCT will also recruit and train 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:	
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

Contact Person: Jesse Feiler

Mailing Address: 32 MacDonough Street, #2
Plattsburgh, NY 12901

Phone: 538-335-5915

E-mail: jfeiler@champlainarts.org

Website: www.saranacrivertrail.org

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

in progress

Soil Health on Market Farms

Project Summary

The Warren County Soil and Water Conservation District is partnering with SUNY Adirondack's Agricultural School to host a program on soil health for market farms and develop a demonstration plot with best management practices at the college. The program will discuss the benefits of market farming, best management practices (BMPs), cover crops, no-till and how to effectively and efficiently use these techniques on the demonstration plot and a soil health workshop taught by a professional market farmer. The program will be marketed to local farmers and students in the SUNY Adirondack Agricultural School, with a long-term to encourage producers to implement soil health practices for conservation and sustainability.

Outputs:

- Design and implement a demonstration plot at SUNY Adirondack
- Create soil health program for use with the demonstration plot

Outcomes:

- A resource for local farmers to see the results of best management practices and how they can implement them on their farm
- Educate SUNY Adirondack students on farm practices and soil, and how it effects conservation

Organization: Warren County SWCD

Contact Person: Nick Rowell

Mailing Address: 394 Schroon River Road
Warrensburg, NY 12885

Phone: 518-623-3119

E-mail: nrowell123@nycap.rr.com

Website: www.warrenswcd.org

Lake Champlain Basin Program

NEIWPCC Code:	LS-2019-014
EPA	0995-004-001
Start Date:	2/25/2019
Close Date:	
Grant Amount:	$8,428.00
Non-federal Match:	$1,200.00
Total Amount:	**$9,628.00**

2019 Local Implementation Grant

in progress

South Champlain Historical Ecology Project (SCHEP)

Project Summary

The South Champlain Historical Ecology Project will engage student interns and a consultant from the Elnu Abenaki to help carry out 2019 education and outreach activities.

Outputs:

- 15 class visits (K-12)
- Host 10 school group (4-12) to participate in archaeological investigations
- Adult volunteer recruitment
- compile surveys, multimedia interviews, reaction pieces, and other data

Outcomes:

- Enhance knowledge and perception of local heritage resources
- Increase public interest in preserving cultural heritage

Organization: SCHEP - Castleton University

Contact Person: Matthew D. Moriarty

Mailing Address: Castleton University
Woodruff Hall Room 110
Castleton, VT 05735

Phone: (802) 468-1047

E-mail: schep.research@gmail.com

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

Lake Champlain Basin Program

NEIWPCC Code:	L-2019-023
GLFC	0100-323-004
Start Date:	3/11/2019
Close Date:	
Grant Amount:	$10,000.00
Non-federal Match:	
Total Amount:	**$10,000.00**

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**

2019 Local Implementation Grant

concluded

Waterways Stage Collaboration

Project Summary

Waterways Stage combines the power of performance arts with the joy of scientific investigation to engage students and their communities in their local watersheds. K-8th grade classrooms collaborate with expert educators from Very Merry Theatre and ECHO, Leahy Center for Lake Champlain to research and perform original plays (10-15min each) on the ecology, culture, and history of selected Lake Champlain Basin Topics. During 2018-2019 school year, 11 classrooms participated and approximately 195 people attended the festival held on April 8th, 2019.

Outputs:

- Watershed curriculum support materials with emphasis on local native climate impacted/threatened species, aquatic invasive species, and stormwater runoff.
- A comprehensive guide for educators to use in developing teaching units focused on the Lake Champlain Watershed with an emphasis on conserving and protecting land and native species.
- 11 original student plays performed

Outcomes:

- Understanding of local species that are impacted/threatened by climate change and promotion of land use conservation and stewardship
- Promotion of cultural exchanges and international scholarship programs

Organization: Very Merry Theater

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Lake Champlain Basin Program

NEIWPCC Code:	PO 12691
EPA	0995-004-001
Start Date:	3/11/2019
Close Date:	**7/10/2019**
Grant Amount:	$5,000.00
Non-federal Match:	
Total Amount:	**$5,000.00**

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**

EXTERNALLY MANAGED CONTRACTS

Externally Managed Contract

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
Grant Amount: **$60,000.00**

Externally Managed Contract

concluded

Hosting, Maintenance, and Support for Multi-Partner Agricultural Conservation Practice Tracking and Planning Geospatial Database

Project Summary

The Multi-Partner, Agricultural Conservation Practice Tracking and Planning Geospatial Database allows for the planning, tracking, and reporting of agricultural best management practice implementation by field staff of a multi-organizational partnership. This project funds one year of hosting, application maintenance, user support, and minor database upgrades.

Outputs:

- One year of application hosting.
- Application maintenance as needed for 12 months.
- User support as needed for 12 months.
- Application upgrades, including; increased security and visibility filters to allow more users to access the database; increased flexibility in uploading shapefiles and feature classes; improvements to reporting function to increase flexibility and usefulness.

Outcomes:

- The continued hosting, maintenance, and support of this database will allow the measurement of nutrient and sediment reduction associated with implementation activity across a robust partnership of agricultural technical service providers. This database also improves coordination and efficiency in service delivery among partner field staff, increasing the amount of work the partnership is able to achieve, and ultimately improving the quality and quantity of projects being implemented. The long-term outcome of the database is intended to be the reduction of nutrients entering Lake Champlain.

Organization: VT DEC to Vermont Agency of Agriculture, Food and Markets

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Lake Champlain Basin Program

EPA (FFY17)

Start Date: 3/1/2018

Close Date: **3/31/2019**

Grant Amount: **$20,000.00**

Externally Managed Contract

in progress

Lake Champlain Basin Agronomy Conservation Assistance Program (ACAP) – Phase 5

Project Summary

Runoff from agricultural lands in Vermont is a major source of excess phosphorus and sediment, which have degraded water quality in Lake Champlain. The Agronomy and Conservation Assistance Program (ACAP), initiated in 2011, provides outreach and technical assistance to farmers in the Lake Champlain watershed to increase implementation of farm practices that reduce soil and nutrient losses to surface waters. A sub-award with UVM Extension and Poultney-Mettawee Natural Resources Conservation District (PMNRCD) supports agronomists that collaborate with farmers to identify high priority conservation projects for their farms, guide them to secure additional technical and financial resources, and provide on-site technical assistance for development and installation of conservation practices to meet water and soil quality objectives.

Outputs:

- Increased number and location of ACAP "core farms."
- Increased number of ACAP farms contacted.
- Recommended soil and water conservation practices for implementation.
- 3 nutrient management plan (NMP) updates that meet or exceed the Natural Resources Conservation Service 590 standard certified by UVM Extension or prepared by PMNRCD in ACAP project area. 0,119 acres of nutrient management planning.

Outcomes:

- 200 of ACAP Phase 1 - 5 core farms having improved understanding of specific farm needs and how soil and water conservation practices, if implemented, will help protect and improve surface water quality.
- Education and outreach to enhance farmers' knowledge about ways to reduce water pollution arising from their operations. Including: participation from 6 farmers in the NMP class, attendance from 3 farmers in the NMP update class, 146 meeting and outreac events and 1816 farmers contacted.

Organization: VT DEC, UVM Extension and Poultney-Mettowee Natural Resources Conservation District

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY16)
Start Date: 10/31/2018
Grant Amount: **$234,600.00**

Externally Managed Contract

concluded

Lake Wise Shoreland Assessments and Best Management Practices Offered Through Lake Wise Program

Project Summary

The Vermont Lake Wise Program promotes lake friendly practices by offering technical assistance for shoreland development to shoreland property owners, regardless of whether the property falls under shoreland permitting requirements. The Lake Wise outreach project will involve two approaches to restoring and protecting shorelands in the Vermont portion of the Lake Champlain Basin, and thereby improving near-shore habitat, through outreach and shoreland assessments, and design and practice bioengineering methods.

Outputs:

- Engaged Lake Wise participation along five Lake Champlain bays and/or inland lakes in the Lake Champlain Basin in Vermont, with preference given to Lake Champlain shoreland areas.
- Completed minimum of 10 Lake Wise field assessments.
- Updated Lake Wise database with assessment results.
- Assisted with Lake Wise bioengineering projects along Lake Champlain and inland basin lakes.

Outcomes:

- Increased participation in Lake Wise in the Lake Champlain Basin in Vermont, including increasing the number of properties assessed, and increase number of properties recognized and awarded as Lake Wise certified.

Organization: VT DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY17))

Start Date: 8/1/2017

Close Date: **2/1/2019**

Grant Amount: **$48,000.00**

Externally Managed Contract

concluded

Subwatershed Monitoring in the McKenzie Brook Watershed in Vermont

Project Summary

The McKenzie Brook watershed in Vermont in western Addison County drains into the South Lake and is one of the most intensive agricultural areas in the state. Recently, the McKenzie Brook watershed has been targeted for accelerated implementation of agricultural conservation practices. This project will expand upon existing monitoring efforts by collecting streamflow data and enhancing water quality sampling through flow-dependent sampling. Streamflow data, along with precipitation data, will increase our understanding of baseline water quality conditions, allow us to estimate nutrient loads at the subwatershed scale, and document potential improvements in water quality as a result of agricultural best management practice (BMPs) implementation.

Outputs:

- Stream flow stations installed and operated for two years during non-frozen conditions (approximately April 2017 – November 2018).
- Continuous stream flow dataset and initial nutrient load estimates for gauged subwatershed for two years
- Precipitation dataset for subwatersheds for two years.
- Flow and initial nutrient load estimates for ungauged subwatersheds (as feasible).
- Water quality dataset available online through the Department of Environmental Conservation's Watershed Data Portal at https://anrweb.vt.gov/DEC/IWIS/.

Outcomes:

- Streamflow stations, along with the enhanced sampling effort, will allow initial nutrient loading estimates and the establishment of baseline water quality conditions in subwatersheds in the McKenzie Brook watershed in Vermont. With a better understanding of current water quality conditions and continued monitoring, we can better identify critical source areas for best management practice implementation and document any potential resulting water quality improvements, including a reduction in phosphorus and total suspended solid concentrations or loadings, that could occur as BMPs are implemented.

Organization: VT DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY16)
Start Date: 7/1/2016
Close Date: 10/25/2019
Grant Amount: $50,000.00

Externally Managed Contract

concluded

Water Chestnut Management Partnership 2018 - 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 prevent the plant's northward expansion in Lake Champlain and further spread in the Basin, and to reduce water chestnut in other waterbodies. Funding from LCBP supported contracted hand-pulling only.

Outputs:

- Up to 85 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.

Outcomes:

- 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 (FFY18)
Start Date: 7/1/2018
Close Date: **8/22/2019**
Grant Amount: **$90,000.00**

Externally Managed Contract

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.

Organization: VT DEC

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Organization: NYS DEC

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VERMONT
AGENCY OF NATURAL RESOURCES

NEW YORK STATE OF OPPORTUNITY
Department of Environmental Conservation

Lake Champlain Basin Program

EPA (FFY18)
Close Date: 9/30/2019
Grant Amount: $266,224.00 (VT)

Externally Managed Contract

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 land-scape thought to be critical sources of phosphorus. The primary purpose of this project is to apply stormwater assessments specif-ically to municipal and private par-cels that have three or more acres of impervious surface. The assessments will en-courage or incentivize regional stormwater treatment prac-tices that treat additional un-regulated 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-effec-tive 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 munici-palities 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 proj-ects 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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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY18)
Start Date: 10/2/2019
Grant Amount: **$250,000.00**

Externally Managed Contract

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
Grant Amount: **$399,348.00**

Externally Managed Contract

in progress

Wastewater Treatment Facility Optimization to Reduce Effluent Phosphorus

Project Summary

This project focuses on the development and imple-mentation 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)
Start Date: 10/1/2018
Grant Amount: **$130,000.00**

Externally Managed Contract

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:

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 iden-tification for the upper half of the Otter Creek Basin.
- Wetland mapping applied to restoration project cre-ation 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 enhanced public recreational opportunities.

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
Grant Amount: **$972,000.00**

Externally Managed Contract

in progress

Using GSI (Green Stormwater Infrastructure) and Other Technologies to Reduce Combined Sewer Overflows (CSOs)

Project Summary

Combined sewage overflow (CSO) events release phos-phorus 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 treat-ment 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
Grant Amount: $1,325,000.00

Externally Managed Contract

in progress

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
Grant Amount: **$90,000.00**

Externally Managed Contract

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 De-partment (FWD) will develop a focused land acquisition program around wetland acquisition and restoration 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:

- Three to five 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 100 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.

Outputs:

- Improved functions and values of existing, degraded wetland acres in the Lake Champlain Basin, such as surface water nutrient retention, stormwater reten-tion, 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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VERMONT
AGENCY OF NATURAL RESOURCES

Lake Champlain Basin Program

EPA (FFY19)
Start Date: 7/1/2019
Grant Amount: **$1,325,000.00**

Externally Managed Contract

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
Grant Amount: **$450,000.00**

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 the New England Interstate Water Pollution Control Commission (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 2019, 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 manages the financial, contractual, and human resource business operations for the LCBP on behalf of the Lake Champlain Steering Committee. LCBP staff are employees of NEIWPCC operating from the LCBP office in Grand Isle, VT.

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