

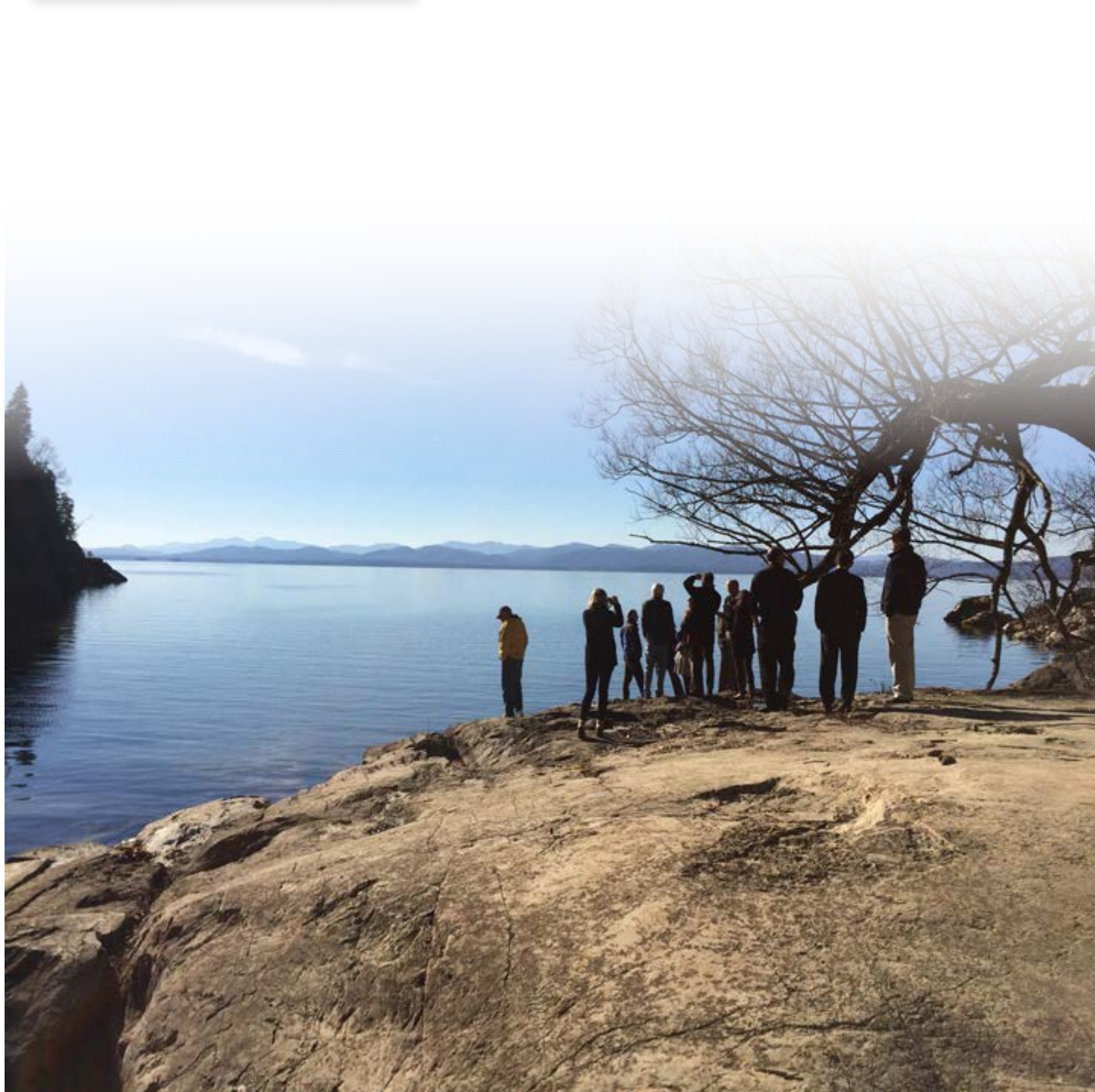


# Annual Report of Activities

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**Fiscal Year:**

October 1, 2014 – September 30, 2015





# About the Lake Champlain Basin Program

The Lake Champlain Basin Program (LCBP) was created by the Lake Champlain Special Designation Act of 1990. Our mission is to coordinate the implementation of the Lake Champlain management plan, *Opportunities for Action*. Program partners include New York, Vermont, and Québec, the US environmental Agency (US EPA) and other federal agencies, the New England Interstate Water Pollution Control Commission, and local government leaders, businesses, and citizen groups.

The Lake Champlain Steering Committee leads the LCBP. Its members include many of the program partners, and the chairpersons of technical, cultural heritage and recreation, education, and citizen advisory committees. The LCBP's primary annual funding is received through a US EPA appropriation under the Federal Clean Water Act. The New England Interstate Water Pollution Control Commission manages business operations of the LCBP on behalf of the Steering Committee.

Visit [www.lcbp.org](http://www.lcbp.org) to learn more.



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# INTRODUCTION



# INTRODUCTION

This summary annual report highlights LCBP projects that were in progress or concluded between October 1, 2014 and September 30, 2015. It includes both external contracts managed by LCBP, and key LCBP tasks implemented by staff during this time period. The grants, externally managed projects, technical reports, and staff products summarized here total \$5,530,994.00. The match provided by recipient organizations totals \$1,204,334.00.

The Lake Champlain Basin Program received federal funding in FY 2015 from the U.S. Environmental Protection Agency, the Great Lakes Fishery Commission, and the National Park Service as well as special project funding from the International Joint Commission.

The New England Interstate Water Pollution Control Commission (NEIWPCC) manages the financial, contractual, and human resource business operations on behalf of the LCBP Steering Committee. LCBP Staff are employees of NEIWPCC operating from the LCBP office in Grand Isle, VT.

Local grants provide an essential way to support boots on the ground solutions for many of the tasks in *Opportunities for Action - An Evolving Plan for the Future of the Lake Champlain Basin - 2010*. Since 1992, LCBP has awarded over 1,000 small grants amounting to more than \$7,000,000. Local municipalities and watershed groups, Soil and Water Conservation District, Natural Resource Conservation Districts, NGOs, schools, and many other groups have been funded for good projects chosen through a competitive process. The outcomes of these grants feature the accomplishments of citizens working in their own communities, often with their own neighbors, to improve water quality by solving local pollution problems, or to address other specific tasks prioritized in *Opportunities for Action*.

I hope that a review of this report will not only inform readers of the work supported by the LCBP and our partners, but also will provide sound models of the initiative needed throughout the watershed to protect the future of Lake Champlain.

For further information about these grants, external contracts and staff work products, please contact the Lake Champlain Basin Program staff at 54 West Shore Road, Grand Isle, Vermont, 05458 or call (802) 372-3213.

Bill Howland, Director  
Lake Champlain Basin Program

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SECTION ONE:

# STAFF PRODUCTS

# Staff Products

## Champlain Valley National Heritage Partnership



### Key Partnerships

Key Partnerships are described in formal, mutually beneficial agreements between the LCBP Steering Committee and major stakeholder organizations, reflecting a joint commitment to achieve the stated vision for the CVNHP. These organizations work in close cooperation with the CVNHP to provide resources and staff to assist in achieving selected goals, objectives, and specific actions described in the CVNHP Management Plan. CVNHP staff provided development and administrative support.

#### Lois McClure Tour, 1814: The Battle for Lake Champlain

In the summer of 2015, the replica canal schooner *Lois McClure*, served as a backdrop to two new initiatives on the Burlington, VT waterfront: *Lake Adventure Summer Camps* for youth ages 4-17; and Maritime Burlington! an interactive multimedia exhibit located at Perkins Pier.

In the fall of 2015, the schooner underwent extensive repairs in a planned haul-out at the New York State Canal Corporation dry dock in Waterford, NY. Skilled professional shipwrights from North Atlantic Shipbuilding and Repair spent six weeks replacing decking, planks, and frames from this 11-year-old wooden vessel. Relaunch in October was extremely successful, and she has returned to her home port of Burlington, VT “ship-shape” and ready for next season’s visitors.



### Federal, State, Regional and Local Partnerships

Capacity building, technical assistance and collaboration are chief components of the services the CVNHP provides to its partners, which range from other NHAs, to state government departments, to county-based organizations, to local communities and non-profits. CVNHP staff time is also spent assisting partners in fulfilling their missions while simultaneously helping them to build capacity within the partner organization.

The sustainability of the CVNHP is measured by the success of its partners. When an organization achieves a goal or objective of the CVNHP Management Plan, the entire partnership benefits and becomes stronger. When partners increase their programming or build their capacity through support provided by the CVNHP, its network grows and becomes more sustainable. Most of the efforts listed for the reporting period were supported by CVNHP staff time, including grant and project administration work. Other capacity-building efforts (i.e. regional stakeholder group support) have additional financial support listed.

- **Addison County Chamber of Commerce:** guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).
- **Alliance of National Heritage Areas:** board member, provided technical support for new organization bylaws, strategic plan, and coordinated a NPS-funded technical assistance program for revitalizing “sacred places” in other NHAs (ongoing).

# Champlain Valley National Heritage Partnership

## Staff Products



- **Battle of Plattsburgh Association:** grant administration assistance (complete).
- **Burlington City Arts:** grant administration assistance (complete).
- **City of South Burlington:** assistance in developing a wayside exhibit. Project complete.
- **Clinton County (NY) Historical Association:** assistance in developing an interpretive map for Valcour Island (ongoing), grant administration assistance for two projects (complete), and guidance for coordinating a regional stakeholder group (CVNHP funds provided in 2015: \$2,000).
- **Chittenden County Regional Planning Commission:** guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).
- **Ethan Allen Homestead:** assistance in developing a wayside exhibit and grant administration assistance (complete).
- **Essex County Planning Department:** guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).
- **Flynn Center for the Performing Arts:** grant administration assistance (complete).
- **Franklin County Regional Chamber of Commerce:** guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).
- **Henry Sheldon Museum:** grant administration assistance (project complete).
- **Historic Hudson-Hoosic Partnership:** board member (advisory), guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).
- **Hudson River Valley National Heritage Area:** board member, assistance in developing a wayside exhibit (ongoing).
- **Lake Champlain Byways:** board member (advisory), technical assistance in implementing the byways management plan (ongoing).
- **Lake Champlain Bikeways:** board member (advisory), technical assistance in developing a new approach to program management and marketing the bikeways.
- **Lake Champlain Islands Economic Development Corp:** guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).
- **Lake Champlain Maritime Museum:** assistance in administration for three grants and three special projects (complete).
- **Niagara Falls National Heritage Area:** provided technical assistance for their NHA grants program (complete).
- **Nulhegan Band of the Abenaki:** assistance in hosting the August 2015 Wabanaki Confederacy Conference and grant administration assistance (\$2,000 in assistance from CVNHP, project complete).
- **Rutland County Regional Planning Commission:** guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).
- **Shires of Vermont (Bennington County):** guidance for coordinating a regional stakeholder group (ongoing, CVNHP funds provided in 2015: \$2,000).



## Champlain Valley National Heritage Partnership

- **St. Albans Historical Society & Museum:** grant administration assistance (complete).
- **Town of Manchester, Vermont:** grant administration assistance (complete).
- **Vermont Fish and Wildlife:** assistance in developing a wayside exhibit (complete).
- **Vermont Grape and Wine Council, CLD Brome-Missisquoi (Quebec), and Adirondack Coast Visitors Bureau:** assistance in maintenance and further development of the Champlain Valley International Wine Trail (ongoing).
- **Vermont Civil War Sesquicentennial Commission:** commission member, assistance in commemorating the 150th anniversary of the American Civil War, including hosting and producing a documentary for the “A Fire Never Extinguished” conference (complete).
- **Vermont Department of Tourism and Marketing:** consultation on the Vermont Marble Trail project (ongoing).
- **Vermont Department of Fish and Wildlife:** assistance in developing a wayside exhibit (complete).
- **Wallonsburg (NY) Civic Association:** grant administration assistance (complete).
- **Winooski Valley Park District:** assistance in developing a wayside exhibit (complete).

### A Fire Never Extinguished

How the Civil War Continues to Shape Civic and Cultural Life in America

November 14-15, 2014 Conference Highlights Film

The Civil War itself is long overdue in the United States. Yet, in 2014, the 150th anniversary of the war's end, the influence that the war had and continues to have on literature, visual art, film, history, and politics. The conference sought to identify lessons that Americans can learn from the war and its aftermath. The “A Fire Never Extinguished” conference film was produced by the Vermont Humanities Council with partnership and support from the National Park Service, the New England Interstate Water Pollution Control Commission, the Champlain Valley National Heritage Partnership, and the Vermont Civil War Sesquicentennial Commission.

Conference highlights and film are available on YouTube.



2014 Conference, Manchester, VT 2014

These films are also available for streaming at [www.vermonthumanities.org](http://www.vermonthumanities.org)

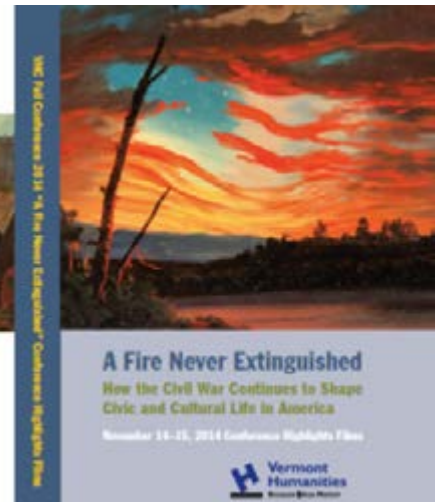
For additional details, contact the Vermont Humanities Council.



New England Interstate Water Pollution Control Commission

From the National Park Service, National Park Service, National Park Service, National Park Service

From the National Park Service, National Park Service, National Park Service, National Park Service



A Fire Never Extinguished  
How the Civil War Continues to Shape Civic and Cultural Life in America  
November 14-15, 2014 Conference Highlights Film

Vermont Humanities

2014 Conference, Manchester, VT 2014

These films are also available for streaming at [www.vermonthumanities.org](http://www.vermonthumanities.org)

For additional details, contact the Vermont Humanities Council.

## Wayside Exhibit Program

### CVNHP Wayside Exhibits Developed in 2015

Started by the LCBP in 2001, the program provides free design services (a \$600-\$700 value) to communities and organizations that wish to utilize the interpretive sign content detailed in the LCBP Wayside Exhibit Manual. This award-winning program has provided design services for more than 320 wayside exhibits since it began. Through funding provided in this agreement, the CVNHP provided design services for 12 new wayside exhibits for nine partners in New York and Vermont. The CVNHP provided French translation for six of the new exhibits. This program fulfilled the intention of CVNHP FY2013 Workplan Item (f): Wayside Exhibit Design Program.

The exhibits listed in italics received CVNHP Wayside Exhibit design assistance and English-French translation—an estimated \$1,000 value each.

**Don't Pick up Hitchhikers!**

Look into the water near this boat launch. What do you see? Maybe you can find freshwater plants, algae, sand, a small fish, or tiny shells. What you might not notice is an aquatic invasive species waiting to hitch a ride on your fishing equipment or boat. These invasive plants and animals often blend in with their surroundings, and some are small or invisible to the naked eye. No matter what shape or size invasive species are, only you can end their free ride to or from Lake Champlain.

**The numbers indicate the total non-native and invasive species known as of 2015.**

**ST LAWRENCE RIVER: 171**

**CHAMPLAIN: 171**

**HUDSON RIVER: 171**

**What is an aquatic invasive species?**

Aquatic invasive species (AIS) are plants, animals, and microorganisms not originally from Lake Champlain that have been introduced, intentionally or by accident. Invasives compete with native species for food and habitat and often grow out of control, disrupting natural communities. They can be a nuisance in swimming and boating areas, and interfere with power lines, water intake pipes are impacted by the invasive zebra mussel, costing cities and towns millions of dollars to manage each year.

**What you can do:**

- **Clean** and inspect your boat, trailer and equipment and remove mud and plants.
- **Drain** all water from the boat, including the bilge, live-well and engine cooling system.
- **Dry** the boat and trailer in the sun for at least five days, or if you use your boat sooner, rinse all the boat trailer, anchor, anchor line, bumpers, engine, etc., with hot water or at a car wash.

# Champlain Valley National Heritage Partnership

## Staff Products

### Conservation & Community

- Vermont Fish and Wildlife: Don't Pick up Hitchhikers, Colchester Boat Launch, Colchester, VT
- City of South Burlington: Do Raindrops Make Lake Champlain Blue? Overlook Park, South Burlington, VT
- Winooski Valley Park District: Legacy of a River: The Winooski Delta, Burlington Bike Path, Burlington, VT
- Manchester Historical Society: The Battenkill, Factory Point Green, Manchester, VT



### Corridor of Commerce

- Lakes to Locks Passage: *The Whallonsburg Grange*, Wallonsburg, NY
- Friends of Northern Lake Champlain: *Rail City*, St. Albans, VT
- Shires of Vermont: *The Paper Mill Village Bridge*, Bennington, VT

### Making of Nations

- Ethan Allen Homestead: *The Black Snake Affair*, Burlington Intervale, Burlington, VT
- Friends of Northern Lake Champlain: *The Smith Legacy*, Taylor Park, St. Albans, VT
- Friends of Northern Lake Champlain: *History on the Hill*, Historical Society and Museum, St. Albans, VT
- City of Plattsburgh: *Thomas Macdonough Memorial Monument*, Memorial Park, Plattsburgh, NY
- Shires of Vermont: *Hub of History*, Bennington, VT

## Education & Outreach Team

### Champlain Basin Education Initiative

Education and Outreach staff coordinated and supported the efforts of the Champlain Basin Education Initiative (CBEI), a consortium of environmental and place-based education groups throughout the Lake Champlain Basin. Activities included:

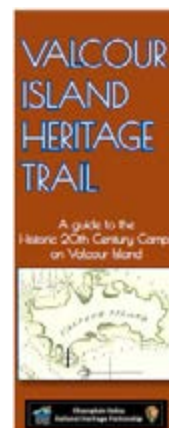
- **Teaching PLACE**, a one-day, professional development workshop using technology and professional wisdom to uncover the interrelationships between natural and built systems
- **World Water Day**, our second initiative celebrating water and student work. Guest speaker Rachael Miller, co-founder of the *Rozalia Project*, presented the organization's efforts to clean up the ocean and Lake Champlain. Classrooms from New York, Vermont and Quebec provided entries through photographs, power point presentations, and videos. All 23 participating classes received recognition with the top prize awarded to Keene Central School, St Albans City School, and Champlain Elementary.
- Coordinated and facilitated the 5th cohort of **Watershed for Every Classroom (WEC)**. In May of 2015, 19 educators from NY and VT concluded their exploration of the rich ecological and cultural stories of the Lake Champlain Basin as part of the WEC professional development experience. This 11 day, 5 credit graduate course offers K-12 teachers inspiration, knowledge and skills to frame exciting place-based curriculum. Five CBEI partners worked as a team to implement the course.



### CVNHP

Education and Outreach staff support the design needs of the CVNHP. Activities included:

- Developed and designed the **Valcour Island Interpretive Visitors Guide and Map**.
- Assisted with the **CVNHP Annual Heritage Summit**
- Redesigned Wayside Exhibits needing rehabilitation
- Designed and fabricated new Wayside Exhibits
- Designed the CVNHP **Passport Stamp Program** flyer/cancellation card



# Education & Outreach Team

## Staff Products

### Meetings, Workshops and Conferences

Education and Outreach staff participated in numerous professional events. Activities included:

- Participated in an **on-farm discussion of cooperative agricultural outreach possibilities** on the Conant Farm in Richmond, Vermont
- Participated in the **Agricultural Communications Work Group** to improve communication among agency and local partners.
- Facilitated **off-site technical and media assistance** during LCBP meetings and events.
- Assisted with the facilitation of **four public meetings to discuss pending revisions to the phosphorus TMDL** for the Vermont portion of Lake Champlain
- Developed and delivered a **workshop on developing web maps and online story presentation tools**, using *State of the Lake* content, to the Vermont Geographic Alliance Summer Institute.
- Staff attended the **National Association for Interpretation International Conference** held in Montreal and co-sponsored by Interpretation Canada.
- Coordinated four **Education and Outreach Advisory Committee meetings**
- Organized and co-hosted a **multi-track capacity building Local Watershed Group Conference**
- Participated in the **Great Lakes Network of Museum and Science Centers** with nine member institutions including ECHO Leahy Center
- Participated in **LCBP Executive and Steering Committee meetings**, continually updating the states, EPA and other partners on progress.
- Participated in **ECHO's Sustainability Project meeting** designed to increase visibility of sustainability concepts for public visitors.
- Attended and facilitated a session of the September **CVNHP Summit**.



## Staff Products

### Education & Outreach Team

#### Print publications (brochures, flyers, reports and other outreach materials)

Education and Outreach staff developed, designed, and produced numerous outreach pieces for multiple audiences and events:

- 5th edition of **State of the Lake and Ecosystem Indicators Report**
- **Annual Report of Activities 2013-2014**, a summary of work and projects
- AIS outreach materials/brochures, poster, and LCBP agricultural exhibit materials for the Vermont Farm Show
- **Table and display banners** for education and outreach events
- LCBP highlights 2014-2015 **poster for NEIWPCC** annual All Staff Meeting
- **Agendas, flyers, brochures** in support of **Watershed for Every Classroom**
- GLFC/LCBP Partnership **outreach flyer**
- Posters and other outreach materials for meetings and press/media events, including Steering Committee and press events with **Senator Patrick Leahy and Senator Kirsten Gillibrand**
- LCBP's **25th Anniversary** logo
- **Opportunities for Action - 2016** revision strategy



#### Programs and Events

Education and Outreach staff participated in public outreach events, both as the principal organizer and host, and as exhibitors. Here is a sampling of those events:

- **State of the Lake release and presentations** to colleges and universities
- **Camp Ingall's** summer program, North Hero, VT
- **Lake Champlain Farm Award** recipient site visit at Hull Dalestead Farm

## Education & Outreach Team

## Staff Products

- **LCBP Love the Lake 4-Part Lecture Series**, Grand Isle, VT
- **Lake Champlain Maritime Festival**, Burlington, VT
- **Northeastern Clinton School Camp Programs (8)**
- **NY Farming in the Basin Twilight Series** with LCBP agronomist
- **Student Field Days** with Clinton County Cooperative Extension, and Rutland and Winooski Natural Resource Conservation Districts
- Signing event facilitation: **Memorandum of Understanding among the governments of VT, NY, and QC** to continue working toward the improvement of the Lake Champlain watershed
- **Vermont Farm Show**, Essex, VT
- **Vermont Free Fishing Day**, Grand Isle, VT
- More than **25 school programs** about the watershed or the *State of the Lake* report were completed
- Facilitated small group watershed discussions during **ECHO, Leahy Center for Lake Champlain two day Summit** regarding flood resiliency issues
- Coordinated **confidential review committees** to evaluate Local Implementation Grant and other project proposals and submitted recommendations for funding to the Executive and Steering Committees for consideration. Circulated award notification letters, reviewed and approved workplans, and worked with NEIWPCC to execute 22 contracts. Six reviewers were recruited for this process.



### Online/Electronic Media

Education and Outreach staff maintained electronic media and communications tools, including all LCBP web-sites (*LCBP*, *CVNHP*, *Lake Champlain Basin Atlas*, *Lawn to Lake*, *Watershed Matters*, *Opportunities for Action*, *State of the Lake*) and social media (Facebook, Twitter, Pinterest). Staff also maintained IT and telecommunications equipment and infrastructure in the Grand Isle office and at the Resource Room. Activities included:

- Coordinated **design and development of Mobile version of the LCBP primary website** with contractor
- Created ***State of the Lake 2015*** web version with supplemental material

## Education & Outreach Team

- Published **three editions of *Casin' the Basin*** e-newsletter.
- Coordinated development of the **Man on the Street video** which was made available on the lcbp.org website, on Facebook (5,500 people reached), and in March *Casin' the Basin* e-news.
- Developed **web maps** for lcbp.org and **Lake Champlain Basin Atlas**, including bathymetric and lake bottom data, LCBP grants tracking map, watershed groups map.
- Migrated lcbp.org to a new web host



## LCBP Resource Room at ECHO, Leahy Center for Lake Champlain

Education and Outreach staff operated the **Lake Champlain Resource Room** seven days a week, 362 days a year. Fiscal year-end visitation for 2015 totaled **28,660**, 24 percent of ECHO's visitation. In addition to day-to-day outreach and interaction with the public, Resource Room staff tailored programs on Lake and Basin issues for classes and other school and community groups, and developed interpretive signage and exhibit materials. Activities included:

- Engaged multiple **school and camp groups** on field trips to ECHO with both formal and informal **science inquiry activities and discussions**.
- Completed **public education programs, presentations, and project support** for three elementary/middle school classes, three college/university classes, and six organizations including the Lake George Association, Great Lakes Sea Grant Network, International Association of Great Lakes Research (IAGLR), Champlain Research Experience for Secondary Teachers (CREST), Squam Lakes Natural Science Center, and the Mobius Vermont mentoring partnership.
- Developed **eight new exhibits** for the Resource Room and **six seasonal exhibits** for ECHO's main exhibit floor.
- Increased **collaboration with area colleges and universities** including presentations for students in UVM's "Natural Resources 1", interviews for the Champlain College "Ethics and the Environment" class, and a growing network of student volunteers.

## Education & Outreach Team

## Staff Products

- Initiated new outreach efforts including a **“Lake Explorers”** activity kit featuring real scientific instruments, **“Eco-games”** assembled for ECHO’s game exhibit, and displays such as **“Wings over the Americas: Our Shared Birds”**, **“Fishing through the Seasons”**, **“River Critters”**, and **“Blue-Green Algae or Not?”**.
- Interpreted zooplankton and phytoplankton using **weekly plankton tows** from the Burlington waterfront. Assisted visitors with identifying live specimens under the microscope including the spiny waterflea.
- Presented **daily public programs** on **wetlands**, **sea lamprey**, **invasive species**, **bird behavior**, and **water quality**.
- **Completed a redesign of components** of the Resource Room and updated equipment including computer monitors, digital and stereo microscopes, binoculars, and magnifiers.



## Project Initiatives

- 

## Quality Assurance and Data

- 14 February 2016

# Technical Team

## Staff Products

### Workshops and Committees

- Reviewed and updated **OFA tasks**, grant tools and content on the **LCBP website** and developed content for the ***State of the Lake 2015***.
- Initiated the revision of ***Opportunities for Action* management plan**, to be released in 2016.
- Coordinated **9 Technical Advisory Committee meetings**, with agendas focused on Final Report reviews, technical presentations, and budget discussions.
- Communicated all **technical project task items, reports and initiatives** to the LCBP Executive and Steering Committees.
- Coordinated **4 Total Maximum Daily Load (TMDL) public meetings** throughout the Vermont portion of the Lake Champlain Basin during FY15. Over 200 members of the public attended.
- Participated in **nearly 100 meetings during FY15**. These meetings consisted of conference calls, meetings, workshops or conferences associated with nutrient reduction, the phosphorus TMDL revision, AIS spread prevention, water quality monitoring, cyanobacteria, flood resilience, management of contracts and subawards, and other topics relevant to the implementation of *Opportunities for Action*.
- Supported efforts to **harmonize GIS data** across the US/CA border in conjunction with the **International Joint Commission**. Organized and led a **workshop** in Quebec in February 2015.



### Communications and Outreach

- Updated technical and grant-related aspects of the **LCBP website** and sent quarterly reminder to partners to update progress on *Opportunities for Action* online database.
- Presented the ***State of the Lake 2015* report** to several area **schools** including Williston Elementary School, Heartworks Learning Academy, Community College of Vermont, ECHO, Leahy Center for Lake Champlain and the University of Vermont.

## Technical Team

- Continued co-teaching **water quality courses** to a group of realtors seeking continuing education credits in conjunction with Lake Champlain Sea Grant.
- Assisted coordinating and sponsored **the International Association of Great Lakes Research Conference** in Burlington in May 2015 and chaired multiple technical sessions at the conference.
- Participated in planning sessions for **Keurig Green Mountain's water quality initiative**.



## AIS Collaborations

The AIS Management Coordinator participates in many external committee and partnership meetings, including:

- Served in the role of **NEANS Panel Council Treasurer and member**. Assisted with budget development, attended the NEANS Panel December 2014 meeting in Gloucester, MA; assisted in completing the floating key chain survey.
- Collaborated with the Paul Smith's College, the Adirondack Park Invasive Plant Program, and Lake George Association to write a white paper on a strategic plan for boat inspection and decontamination in the Adirondack region; planned and presented at a partner summit **"Building Consensus for Integrated Regional Program for Stewardship, Inspection, and Decontamination in the Adirondack Park"** where 33 participants from the ADK region including NYSDEC strategized a science based approach to AIS spread prevention.
- Participated in reviewing an MOU that identifies AIS as a threat to the ADK park and the planned steps that partners intend to take to implement an AIS regional spread prevention strategy; participated in a **boat inspection workgroup** with NYSDEC, Paul Smiths College, APIPP and other partners to identify and set priorities on boat inspection and decontamination sites.
- Attended the APIPP fall partner meeting to discuss how the **Lake Champlain Basin Rapid Response Plan** might be adopted for the ADK park; participated in a NY regional watercraft inspection call, participated in the NY Invasive Species Advisory Committee meeting, and met with NYSDEC Region 5 and 6, APA, and APIPP to begin to develop a **rapid response plan for the ADK PRISM** providing comments on plan revision and participating in conference calls.
- Attended the **NALMS 2014 conference** in FL and the **ANS Task Force Meeting in Washington D.C.** focusing on writing a report of ANS Task Force accomplishments to Congress.

# Technical Team

## Staff Products

- Participated in a **US Army Corps of Engineers** program review in Vicksburg, MS.
- Attended and helped to organize the **Northeast Aquatic Plant Management Society** January 2015 meeting in Saratoga, NY as a board member.
- Held an ANS Subcommittee meeting in October.
- Assisted with a **SUNY Plattsburgh** class which focused on spiny water flea spread prevention in the Saranac River chain using structured decision making.
- Presented an AIS spread prevention talk at the **NY American Fisheries Society** in February in Lake Placid, NY and to the VT Citizens Advisory Committee meeting in March.
- Coordinated with **UVM Gund Center** on the development of the AIS economic impact component of contracted work and collected feedback from the ANS Subcommittee.
- Participated in **Asian Clam Lake George** management meetings to review needed scientific projects and set management goals for summer 2015.
- Participated in meetings to plan a water craft inspection workshop as part of the **NY Federation of Lakes and Ponds Conference** in May. The committee developed the NY watercraft inspection handbook and developed the agenda for lake associations interested in starting a boat launch steward program with a boat inspection component.
- Worked with the Technical Team staff to develop AIS related ***State of the Lake*** graphics and drafted the biodiversity and AIS sections of the *State of the Lake 2015*.
- Attended the **NYS Invasive Species Council Advisory Committee** meeting in March and presented the implementation plan for the ADK regional AIS spread prevention plan.
- Worked with 14 **AIS spread prevention grant** recipients on the development of work plans and QAPPs for the 2015 field season.
- Worked with USACE to review the **Lake Champlain water chestnut program** and worked with NYSDEC to ensure the mechanical harvesters can work on both sides of the south lake.

## Technical Team

### AIS Management

- Developed a workplan and budget, reviewed the 2015 Generic Boat Launch Steward QAPP, and prepared announcements for NEI to post up to 10 boat launch steward interns and marketed positions at a job fair in Plattsburgh, NY. Secured permits and conducted AIS training with partners.
- Supervised and trained a temporary supervisor during family leave for the **2015 Lake Champlain Boat Launch Steward Program**. Reviewed the Lake Champlain data for consistency. Supervised boat launch steward data manager, in the quality review and compilation of the 2007-2014 boat launch steward data in preparation for a 2016 summary report. All stewards participated in a debrief and evaluations. Data collection on the launches ended in September.
- Convened boat launch stewards to participate in the annual **water chestnut survey and pull at Fort Ticonderoga** with TNC.
- Provided support in getting signators to the **Champlain Canal barrier feasibility study project agreement**. Facilitated a NEI and NYSCC MOA to use LCBP funds as match for the project.
- Analyzed New York State Canal Corporation boat launch steward data and organism samples.
- Edited a NY State boat inspection manual created in partnership with **NYS Natural Heritage and SeaGrant**.
- Met with NYSDEC and VTDEC in the Town of Dresden, NY to discuss mechanical harvesting of water chestnut in the South Lake. NYSDEC now holds a VT permit to mechanically harvest water chestnut in both NY and VT.



SECTION TWO:

# GRANTS IN PROGRESS

## Aquatic Invasive Species

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## AIS River Steward for the Northern Champlain Region of New York

### Project Scope

The purpose of this project is to protect the Ausable River and its near shore banks and associated lakes, from aquatic invasive species. From previous River Steward programs, AsRA staff has learned that human awareness and actions are integral to early identification and spread limitation. In 2015 with sufficient funding, a River Steward will distribute the spread prevention message, serve as an information resource to the public (especially river users), monitor the river's condition for presence or absence of AIS, and maintain wader wash stations across the watershed.

**Project Outcome/Deliverable:** AsRA will build on the previous year's results and shift the role of the Steward to that of an on-river resource for gathering and sharing information on the state of the river, the threat of nuisance species, and actions that river users and the public can take to protect the watershed.

**Organization:** Ausable River Association

**Contact Person:** Kelley Tucker

**Mailing Address:** PO Box 8  
Wilmington, NY 12997

**Phone:** (518) 637-6859

**E-mail:** info@ausableriver.org

**Website:** www.ausableriver.org

*What you can do to protect the Ausable River:*

**CHECK** for and remove all mud, plants, and animals from gear.

**CLEAN** everything that came in contact with water. Soak for 60 sec or more in one of the following:

- Hot water: heated above 140° F
- Bleach: 1/3 cup to 1 gal. water
- Salt or Detergent: 3/4 cup to 1 gal. water

**Other methods**

- Ammonium cleaners sprayed on items, wiped and rinsed off
- Freezing items solid

**Note:** Absorbent items like felt-soled boots and life jackets require soaking for 48+ minutes.

**DRY** gear completely for 48 hours if cleaning is not practical.



**STOP AQUATIC INTRUDERS!**  
Remove all mud, plants, and animals from gear before leaving the water.  
www.ausableriver.org



**Our mission —**  
is to identify, conserve, and restore the Ausable River watershed's natural and recreational resources for their ecological value and the benefit of human communities.

1161 Haselton Road  
P.O. Box 8  
Wilmington, NY 12997  
www.ausableriver.org  
518-637-6859  
contactus@ausableriver.org



**Protect the Ausable River from these invaders and help preserve trout habitat!**

**New Zealand Mud Snail**



Long (1-2") wide flat, oval-shaped snails that reproduce rapidly and destroy trout habitat.

**Didymo (Rock Snot)**



River flow keeps Didymo from reaching and covering trout habitat.

**Live Bait**



Non-indigenous minnows and other aquatic animals that can harm native fish.



<b>NEIWPCC Code:</b>	L-2015-045
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$14,950.00
<b>Non-federal Match:</b>	\$ 3,350.00
<b>Total Amount:</b>	\$18,300.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## AIS Spread Prevention Watercraft Inspector Program

### Project Scope

The LCBP AIS Spread Prevention Grant 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. Stewards prevent the spread of AIS by performing careful inspections of all watercraft launched and retrieved at these sites, as well as informing visitors about AIS issues and spread prevention measures that they can take themselves.

**Project Outcome/Deliverable:** The final report will include statistics on total visitors encountered, total boat inspections conducted, number of boats washed, number of organisms found, type/species of organisms found (if possible), and a list of prior waterway visits reported by watercraft operators.

**Organization:** Paul Smith's College AWISP

**Contact Person:** Eric Holmlund

**Mailing Address:** c/o Paul Smith's College, P.O. Box 265

Paul Smiths, NY 12970

**Phone:** 518-327-6341

**E-mail:** [eholmlund@paulsmiths.edu](mailto:eholmlund@paulsmiths.edu)

**Website:** [www.adkwatershed.org](http://www.adkwatershed.org)



<b>NEIWPCC Code:</b>	L-2015-034
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$15,000.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Backcountry Water Monitors, Year One

### Project Scope

Working with the Adirondack Park Invasive Plant Program (APIPP), the Backcountry Water Monitors Project will train ADK members and supporters 1) to identify Aquatic Invasive Species in backcountry waters; and 2) to record and report their work to project staff. Volunteers will also learn to self report positive findings through iMapInvasives. The project will utilize existing APIPP Aquatic Invasive Species (AIS) workshops to train volunteers. Two AIS workshops will train volunteers in backcountry monitoring protocol. ADK's membership, volunteers, and various print and social media platforms will help increase attendance at these workshops. The Backcountry Water Monitors Project seeks to educate and recruit volunteers who can monitor backcountry waters of the Lake Champlain Basin and the Adirondack Park which are currently not effectively surveyed by other efforts.

**Project Outcome/Deliverable:** Adirondack Mountain Club will develop a backcountry monitoring protocol, purchase backcountry monitoring equipment (GPS units/field cameras, and backcountry boats), conduct two AIS workshops to train volunteers in backcountry monitoring protocol, and support outreach to ADK members, and the public about the BCWM Project and best practices to prevent the spread of AIS. Backcountry AIS workshops will cover all aquatic invasives, but highlight invasive species which are the most likely backcountry candidates, such as European frogbit.

**Organization:** Adirondack Mountain Club

**Contact Person:** Cathy Pedler

**Mailing Address:** 814 Goggins Road  
Lake George, NY 12845

**Phone:** 518-668-4447

**E-mail:** cathy@adk.org

**Website:** www.adk.org



<b>NEIWPCC Code:</b>	L-2015-019
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$14,986.00
<b>Non-federal Match:</b>	\$ 7,245.00
<b>Total Amount:</b>	\$22,231.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Boat Wash Station – Lake Carmi State Park

### Project Scope

This project will work toward aquatic spread prevention within Lake Carmi – specifically in the Lake Carmi State Park. A boat cleaning station will be built in the State Park, which will be served by a part time staff person who will provide information and user surveys to boaters. The staff person will also spend time at the other public boat launches including the Vermont Fish and Wildlife Department launch at the north end of the lake. The surveys will assess current AIS launch practices.

**Project Outcome/Deliverable:** There are currently no invasive education efforts within the Lake Carmi watershed. This project would benefit the Lake Carmi watershed and all those impacted by its health including year-round community members, camp owners, and the Town of Franklin as a whole. The final report will include the number of flyers/pamphlets distributed, photos of wash station, number of days of steward coverage, number of surveys, visitors, boats inspected and AIS intercepted.

**Organization:** Franklin Watershed Committee Inc.

**Contact Person:** Jessica Draper

**Mailing Address:** P.O. Box 82  
Franklin, VT 05457

**Phone:** 802.752.7247

**E-mail:** jdraper96@gmail.com

**Website:** [www.franklinwatershedvt.org](http://www.franklinwatershedvt.org)



<b>NEIWPCC Code:</b>	L-2015-032
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 8,800.00
<b>Non-federal Match:</b>	\$ 5,000.00
<b>Total Amount:</b>	\$13,800.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Early Detection: Aquatic Invasive Yellow Iris Removal and Spread Prevention Plan for Four Lake Champlain Tributaries

### Project Scope

Aquatic invasive plant control programs are active for the confluence areas of LaPlatte/McCabe's and Thorp/Kimball watersheds that manage European frogbit and water chestnut populations. Technical experts for this initiative suggest investigating the feasibility of adding control measures for yellow iris to the current management program, and to expand the long term management program to the lower Lewis Creek that drains into Lake Champlain. This project will investigate hand and herbicide treatment removal techniques for yellow iris in these 3 geographic locations to evaluate methods, cost and feasibility. All areas are of statewide ecological significance.

**Project Outcome/Deliverable:** The final report will include GIS maps of the yellow iris infestation areas and yellow iris treatment area, the number/size of stands treated, removal methods and results, costs and feasibility of preferred removal methods for long term volunteer monitoring and management at a municipal level.

**Organization:** Lewis Creek Association

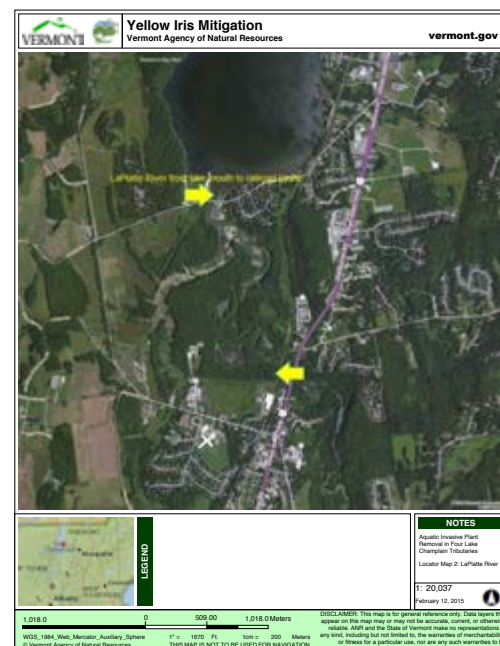
**Contact:** Martha Illick  
**Person:**

**Mailing Address:** 442 Lewis Creek Rd  
Charlotte, VT 05445

**Phone:** (802) 425-2002

**E-mail:** marty.illick@gmail.com

**Website:** www.lewiscreek.org



**NEIWPCC Code:** L-2015-018  
**Date Complete:** OPEN  
**Grant Amount:** \$7,255.00  
**Non-federal Match:** \$1,100.00  
**Total Amount:** \$8,355.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Echo Lake Invasive Aquatic Species Prevention Project

### Project Scope

The project to be funded by this grant is focused on selective suction harvesting invasive aquatic species (predominantly Eurasian water milfoil) by professional divers, complemented by hand harvesting by individual property owners along shoreline properties that are too shallow for divers to harvest. The project will consist of three phases: the first phase will be to survey the lake to identify areas with the highest concentrations of invasive species and establish a plan for selective harvesting of these areas. The second phase will be to conduct selective harvesting by professional divers and to collect and dispose of the harvested plants by volunteers from the ELPOA. The third phase will be to monitor the harvest and effects on the level of invasive and native species in harvested areas.

**Project Outcome/Deliverable:** The final report will include a map of the areas harvested, the total number of dive days, and the volume of Eurasian water milfoil removed from the lake and deposited at the approved composting site.

**Organization:** Echo Lake Property Owners Association (ELPOA) & Town of Sudbury

**Contact Person:** Gerald deLancey

**Mailing Address:** 584 Delancey Road  
Brandon, VT 05733

**Phone:** 802-273-3113

**E-mail:** [grannyclaire@shoreham.net](mailto:grannyclaire@shoreham.net)

**Website:** n/a



<b>NEIWPCC Code:</b>	L-2015-025
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,960.00
<b>Non-federal Match:</b>	\$1,355.00
<b>Total Amount:</b>	\$5,315.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Eurasian Water Milfoil Control in the Lake Colby Watershed

### Project Scope

The 2015 project plan involves multiple-pass harvesting of the Lake by our subcontractor, the Adirondack Watershed Institute, and the re-setting of existing benthic barriers in especially fertile areas of the lake and its outlet (Little Colby Pond) which have been dominated by Eurasian Water Milfoil.

**Project Outcome/Deliverable:** The program will address both Lake Colby and the outlet into what is known as Little Colby, a marsh area that itself outlets into Lower Saranac Lake. With the main lake (286 acres) under steady-state control, the top priority is holding the line against re-growth of new plants while completing the harvesting and benthic matting of down-stream areas.

**Organization:** Colby Foundation

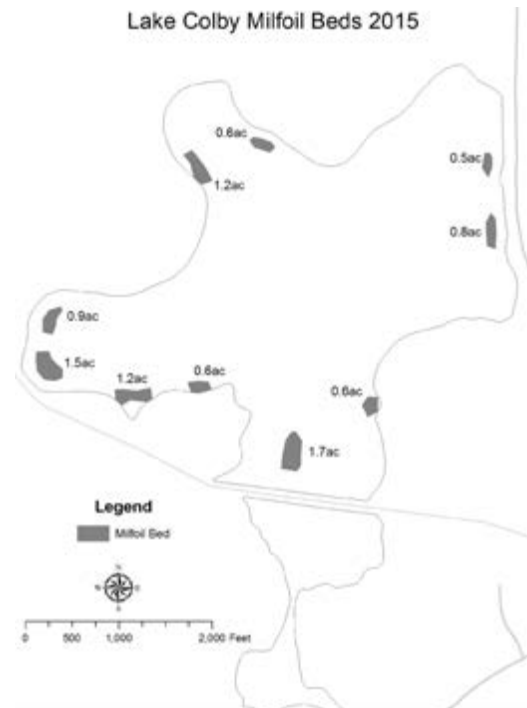
**Contact Person:** Ernest E. (Lee) Keet

**Mailing Address:** PO Box 934,  
Saranac Lake, NY 12983

**Phone:** 518-261-6608

**E-mail:** [info@colby-foundation.org](mailto:info@colby-foundation.org)

**Website:** n/a



<b>NEIWPCC Code:</b>	L-2015-044
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 9,000.00
<b>Non-federal Match:</b>	\$ 7,000.00
<b>Total Amount:</b>	\$16,000.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

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

### Project Scope

The Rainbow Lake Association, Inc. (RLA) will hire one Paul Smith's College Watershed Stewardship Program (PSC WSP) steward for 5 days for 15 weeks (June, July, August) at the NY State Department of Conservation, Region 5. Buck Pond Campground boat launch, located on the Rainbow Lake waterway. The steward will be at the boat launch for 4 days, the 5th day is designated for special projects, such as educational outreach, plant mapping and research. For July and August the RLA will provide volunteers to cover an additional day, making a total of 5 days of stewardship coverage per week to provide a solid defense against the introduction of invasive aquatic species.

**Project Outcome/Deliverable:** The stewards will educate boaters about invasive species, especially Eurasian Watermilfoil (EWM) and Southern Naiad, inspect boats for plants, help clean off plants, advise boaters to use the boat wash and explain safe boating practices. The RLA will provide the NYS DEC with an informational flyer about EWM and boating safety to be given to all Buck Pond Campground boaters. RLA volunteers will also survey the shoreline of the entire waterway for EWM.

**Organization:** Rainbow Lake Association

**Contact Person:** Peter Geertz

**Mailing Address:** 125 David Drive  
Poughkeepsie, NY 12601

**Phone:** 845-635-1215

**E-mail:** pgeertz@earthlink.net

**Website:** www.rainbowlakeassn.org



<b>NEIWPCC Code:</b>	L-2015-020
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	\$ 3,123.00
<b>Total Amount:</b>	\$18,123.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Lake Eden Greeter Program

### Project Scope

There are three public boat launches on Lake Eden. The greeter program established in 2009 at each location will be continued so that greeters may talk to boaters about aquatic invasive species problems in Vermont. Educational materials will be distributed and boaters will be asked to inspect their boats before and after entering a water body. A daily log of boater activity will be kept. The Association also plans to monitor Lake Eden to assist in the early detection of milfoil or other invasive species, a program started in 2008. Working with the State of Vermont DEC Vermont Invasive Patroller program Lake Eden Association plans to schedule a training session for our stewards, volunteers and any other public participants who wish to attend.

**Project Outcome/Deliverable:** The Lake Eden Greeter Program will hire and train stewards to collect boat launch user survey data. Stewards will greet and educate visitors about AIS spread prevention and conduct watercraft inspections. The final report will include the number of days worked, the number of boaters surveyed, a summary of last body of water visited, and the types and number of organisms intercepted.

**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:** n/a



<b>NEIWPCC Code:</b>	L-2015-023
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$13,600.00
<b>Non-federal Match:</b>	\$ 8,784.59
<b>Total Amount:</b>	\$22,384.59

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Lake Placid AIS Spread Prevention Steward Program

### Project Scope

The LCBP AIS Spread Prevention Grant will help underwrite the full cost to the Shore Owners' Association of Lake Placid (SOA) of hiring the Watershed Stewardship Program for watercraft inspection in the headwaters of the Lake Champlain Basin, specifically Lake Placid at the DEC Launch and the Village of Lake Placid Launch. 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.

**Project Outcome/Deliverable:** The final report will include statistics on total visitors encountered, the total boat inspections conducted, the number of boats washed, the number of organisms found, type/species of organisms found (if possible), and a list of prior waterway visits reported by watercraft operators.

**Organization:** Shore Owner's Association of Lake Placid

**Contact Person:** Nicole Broderick

**Mailing Address:** PO Box 1235  
Lake Placid, New York 12946

**Phone:** 518-523-1446

**E-mail:** lpsoa@northwoodschoo.com

**Website:** www.lpsoa.org



<b>NEIWPCC Code:</b>	L-2015-059
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$15,000.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Northern Lake Frogbit and Water Chestnut Control and Mapping Project

### Project Scope

The Lake Champlain Committee will partner with Arrowwood Environmental to map and control populations of frogbit and water chestnut in northern Lake Champlain. This project will involve: 1) remotely identifying habitat for these AIS; 2) conducting field inventories in these habitat areas to identify new infestations; 3) initiate control on any new infestations; and 4) continue control on known populations in the northern lake. This project will provide a comprehensive map of the status of frogbit and water chestnut in the northern lake. Control of these populations will be undertaken with the number of plants harvested dependent upon populations present.

**Project Outcome/Deliverable:** The result will be a comprehensive map of frogbit and water chestnut populations in the northern lake, as well as continued control on these infestations. We plan on coordinating our efforts with managers at Missisquoi National Wildlife Refuge in order to ensure that necessary survey and control efforts are undertaken but not duplicated.

**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](mailto:lorif@lakechamplaincommittee.org)

**Website:** [www.lakechamplaincommittee.org](http://www.lakechamplaincommittee.org)



<b>NEIWPCC Code:</b>	L-2015-016
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$14,992.00
<b>Non-federal Match:</b>	\$11,463.00
<b>Total Amount:</b>	\$26,455.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Upper Saranac Lake Steward Program

### Project Scope

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). Stewards prevent the spread of AIS by performing careful inspections of all watercraft launched and retrieved at these sites. The stewards will now have the opportunity to supervise cleaning of watercraft when appropriate, utilizing the newly built decontamination wash station at the Back Bay Boat launch site. They will also educate the public in order to increase visitor understanding of AIS issues and spread prevention measures that can be utilized by the general public. Stewards will collect detailed data to be used in Paul Smith's College Watershed Stewardship Program's (WSP) comprehensive summary report.

**Project Outcome/Deliverable:** Statistics will be summarized for the total visitors encountered, the total boat inspections conducted, the number of boats washed, the number of organisms found, the type/species of organisms found (if possible), a list of prior waterway visits reported by watercraft operators will be provided.

**Organization:** Upper Saranac Lake Association

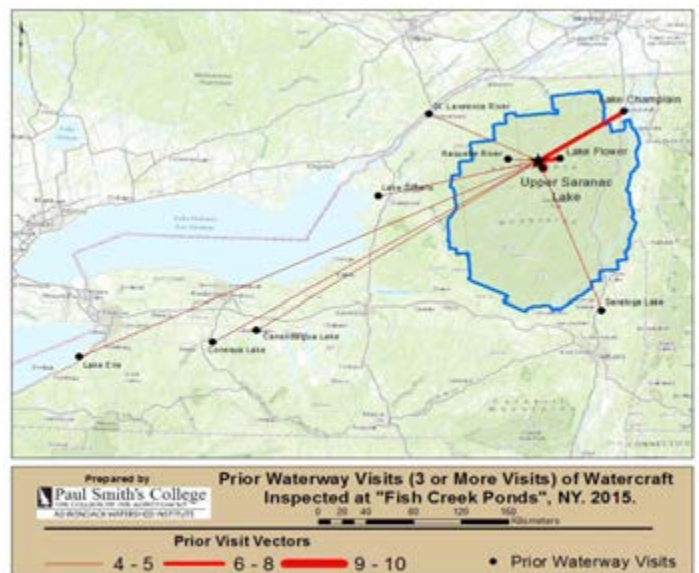
**Contact Person:** Guy Middleton

**Mailing Address:** PO Box 564  
Saranac Lake, NY 12983

**Phone:** 518-796-1052

**E-mail:** lakemanager@uslf.org

**Website:** www.uppersaranac.com



**NEIWPCC Code:** L-2015-033  
**Date Complete:** OPEN  
**Grant Amount:** \$15,000.00  
**Non-federal Match:**  
**Total Amount:** \$15,000.00

# Aquatic Invasive Species

# 2014

# Local Implementation Grant

## Warren County Purple Loosestrife Management Program

### Project Scope

Warren County as with many other counties in the Champlain Watershed, have had a tremendous explosion in its purple loosestrife population. Purple loosestrife beetles (*Galerucella calmarensis* and *G. pusilla*) will be collected by the District and bred for dispersal along the wetlands of Halfway Brook and Lake George. While in the wetlands, the District and volunteers will use GPS mapping to record invasive species for the Capital Mohawk PRISM database. A hatchery system will be built with small wading pools, using potted purple loosestrife and cover netting to rear the beetles. The increased number of beetles will be used to manage the purple loosestrife populations. The education and outreach components will include volunteers, presentations, and educational site visits.

**Project Outcome/Deliverable:** Warren County SWCD will obtain a NYSDEC beetle release permit, order supplies and build beetle hatcheries, harvest 50 root wods, collect 500-600 beetles, conduct education and outreach, and rear and report number of beetles released.

**Organization:** Warren County SWCD

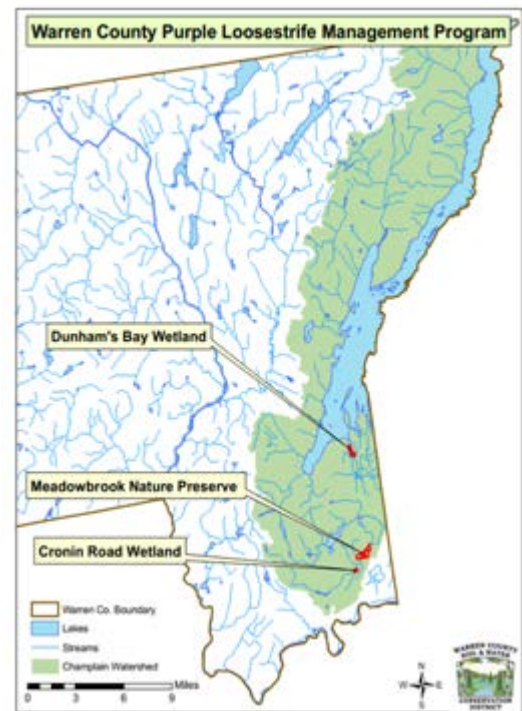
**Contact Person:** Nick Rowell

**Mailing Address:** 394 Schroom River Road  
Warrensburg, NY 12885

**Phone:** 518-623-3119

**E-mail:** nrowell123@nycap.rr.com

**Website:** [www.warrenswcd.org](http://www.warrenswcd.org)



<b>NEIWPCC Code:</b>	L-2015-017
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$14,800.00
<b>Non-federal Match:</b>	\$ 2,540.00
<b>Total Amount:</b>	\$17,340.00

# Champlain Valley National Heritage Partnership

# 2014

# Key Partner Grant

## Champlain Longboats New York State Pilot Project

### Project Scope

For the past 16 years the Lake Champlain Maritime Museum (LCMM) has been building rowing gigs. These six-person, highly seaworthy vessels have become the backbone of a two-part rowing program. One part serves the community as a whole, allowing individuals from the community to row as a group at set times during the open water season for a modest fee. The second part is a school rowing program that currently encompasses nine schools in Vermont. The program is highly successful at attracting students who haven't found a niche in other extra-curricular programs and provides them with a safe, supportive and fun environment that gives them access to Lake Champlain. The success of the program is reflected in an increased enrollment across both youth and adult rowing programs.

**Project Outcome/Deliverable:** The CVNHP and the LCMM expanded the program in partnership with the Village of Champlain, New York last summer. In June 2015, the LCMM delivered a 32 foot long, six-oared pilot gig rowing boat to Bill Earl Park on the Great Chazy River in the heart of the Village of Champlain. This location was the site of a major boatbuilding industry during the nineteenth century. Community members met regularly for rowing during the summer, and a four-oared 25' Whitehall-style rowing boat was brought to the park in August to serve the growing number of participants. In its initial season, the Champlain, New York rowing initiative successfully engaged the community and surrounding towns in team rowing. More than 20 adults rowed consistently over the course of the 2015 rowing season

**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Nick Patch

**Mailing Address:** 4472 Basin Harbor Road  
Vergennes, VT 05491

**Phone:** (802) 475-2022 x113

**E-mail:** [nickp@lcmm.org](mailto:nickp@lcmm.org)

**Website:** <http://www.lcmm.org/>

and a core group of five youth rowers joined in once school was back in session in the fall. Participants and sponsor hope to continue the program in 2016.



<b>NEIWPCC Code:</b>	L-2015-058
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$5,333.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$5,333.00

Champlain Valley  
National Heritage  
Partnership

2014

# Water Trail Grant

## Lamoille River Paddlers' Trail

### Project Scope

The Lamoille River flows nearly 90 miles from its headwaters in northern Vermont to its outlet in Lake Champlain. While it provides ample recreational opportunities, no guides have been created for visitors, no campsites have been developed, and portage trails remain unmarked. As such, the river is an excellent candidate for a new water trail. This project will engage area volunteers, grade schools, and college students in an emerging community effort to develop a Paddlers' Trail for the Lamoille River.

**Project Outcome/Deliverable:** Results will include building a webguide to the river and its natural and cultural history, the creation of downloadable river maps, the design of a water trail logo and wayfinding signage, the construction of a campsite for paddlers, and the improvement of portage trails, and the orchestration of a river clean-up.

**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:** <http://www.vermontriverconservancy.org/>



<b>NEIWPCC Code</b>	L-2015-055
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$ 5,500.00
<b>Total Amount:</b>	\$13,000.00

# Champlain Valley National Heritage Partnership

# 2014

# Key Partner Grant

## Lois McClure Tour, 1814: The Battle for Lake Champlain

### Project Scope

In the summer of 2015, the replica canal schooner *Lois McClure*, will serve as a backdrop to two new initiatives on the Burlington, VT waterfront: *Lake Adventure Summer Camps* for youth ages 4-17; and *Maritime Burlington!* an interactive multimedia exhibit located at Perkins Pier.

**Project Outcome/Deliverable:** In the fall of 2015, the schooner will undergo extensive repairs in a planned haul-out at the New York State Canal Corporation dry dock in Waterford, NY. Skilled professional shipwrights from North Atlantic Shipbuilding and Repair will replace decking, planks, and frames from this 11-year-old wooden vessel. A relaunch is planned for October returning the *Lois* to her home port of Burlington, VT “ship-shape” and ready for next season’s visitors.

**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Erick Tichonuk

**Mailing Address:** 4472 Basin Harbor Road  
Vergennes, VT 05491

**Phone:** 802-475-2022 x120

**E-mail:** [erickt@lcmm.org](mailto:erickt@lcmm.org)

**Website:** <http://www.lcmm.org/>



<b>NEIWPCC Code:</b>	L-2014-070
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$35,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$35,000.00

Champlain Valley  
National Heritage  
Partnership

2014

# Water Trail Grant

## Northern Forest Canoe Trail Stewardship Internship Program

### Project Scope

The NFCT seeks to engage a team of three summer stewardship interns, area youth, and adult volunteers in a suite of public access projects in the Lake Champlain Basin. The intern program will give students from area colleges a chance to work alongside land managers, trail planners, and area volunteers while completing hands-on waterway stewardship projects.

**Project Outcome/Deliverable:** These projects will include a new campsite, campsite and river access improvements, and the installation of wayfinding signage along the route. In addition, we plan to develop opportunities for students from the Richford high school to complete a water trail project in their community. Interns will write about their experiences in the field. These accounts, along with photographs, will be published in online blog posts. (Note: Projects are still in the approval phase, if we are not able to accomplish the described projects in the timeframe of this grant, the NFCT will work with the project officer to identify similar stewardship projects on the rivers.

**Organization:** Northern Forest Canoe Trail

**Contact Person:** Walter Opuszynski

**Mailing Address:** PO Box 565  
Waitsfield, VT 05673

**Phone:** 802-496-2285 x2

**E-mail:** walter@northernforestcano  
etrail.org

**Website:** <http://www.northernforestcanoetrail.org/>



<b>NEIWPCC Code</b>	L-2015-029
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$ 4,800.00
<b>Total Amount:</b>	\$12,300.00

# Champlain Valley National Heritage Partnership

# 2014

# Local Water Trail Grant

## Winooski River Map and Guide

### Project Scope

From its headwaters in Cabot, VT, the Winooski flows ninety miles to its mouth in Lake Champlain. The watershed, which drains approximately 1,080 square miles (10% of VT), is the largest tributary watershed to Lake Champlain. Its tributaries include the Mad River, the North Branch, the Dog River, the Huntington River, the Little River, the Jail Branch, and the Kingsbury Branch. Little information about water based recreational opportunities has been developed.

**Project Outcome/Deliverable:** Friends of the Winooski River seek to engage area students and adult volunteers in the development of a waterproof map and guide for the Winooski River and its tributaries. The map will blend information about the recreational opportunities (i.e. paddling, fishing and swimming, hiking, nature study) in the watershed with content about the region's unique natural and cultural history. The map will include updated information on recently completed public access development and restoration projects, many completed with LCBP support. It will build upon and expand a previous published booklet, produced by the Friends, which is now out-of date and limited to the main stem.

**Organization:** Friends of the Winooski River

**Contact Person:** Noah Pollock

**Mailing Address:** 55 Harrison Ave  
Burlington VT, 05401

**Phone:** 802-540-0319

**E-mail:** noah.pollock@gmail.com

**Website:** <http://www.winooskiriver.org/>



<b>NEIWPCC Code:</b>	L-2015-049
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$ 5,600.00
<b>Total Amount:</b>	\$13,100.00

Champlain Valley  
National Heritage  
Partnership

Education  
& Outreach

2014

Local Implementation  
Grant

## Adirondack Fire Towers and Land Stewardship

## Project Scope

Essex County Historical Society will bring awareness of the history and role of fire towers in regional land stewardship. The program is designed for families and schools. The project will use the museum's fire tower exhibition and new interpretive materials developed to enhance participants' learning experience. After an orientation on regional fire towers at the museum, participants will be given an opportunity to visit mountaintop fire towers to explore the issues of land stewardship.

**Project Outcome/Deliverable:** Through museum visits, field experience and interpretive materials about fire towers, program participants will have an increased understanding of stewardship of the Lake Champlain Basin, the landscape and cultural heritage.

**Organization:** Essex County Historical Society

**Contact Person:** Diane O'Connor

**Mailing Address:** P. O. Box 428  
Elizabethtown, NY 12932

**Phone:** 518-873-6466

**E-mail:** [director@adkhistorycenter.org](mailto:director@adkhistorycenter.org)

**Website:** <http://adkhistorycenter.org/>



<b>NEIWPCC Code:</b>	L-2015-054
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$6,284.00
<b>Non-federal Match:</b>	\$2,314.00
<b>Total Amount:</b>	\$8,598.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Aquatic Invasives Tank and Interpretation

## Project Scope

ECHO proposes to retrofit a 2,000 gallon tank to tell the story of invasive species in Lake Champlain; how to identify them, how they travel and what personal actions the public can take to stop human transport. The tank will present live invasive fish species and reproductions of invasive aquatic plant species in a habitat. It will also highlight human vectors by which invasive species travel. The tank experience will be augmented by graphics, a tablet-based interactive game, and a live webcam. The exhibit will be used for daily programs for ECHO on-site and online guests.

**Project Outcome/Deliverable:** Up to 280,000 ECHO on-site and online annual guests will learn about invasive species identification, human vectors and what individual actions they can take to stop invasive species spread.

**Organization:** ECHO, Leahy Center for Lake Champlain

**Contact Person:** Phelan R. Fretz

**Mailing Address:** One College Street  
Burlington, VT 05401

**Phone:** 802-864-1848 Ext 126

**E-mail:** pfretz@echovermont.org

**Website:** <http://www.echovermont.org/>



<b>NEIWPC Code:</b>	L-2015-057
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,300.00
<b>Non-federal Match:</b>	\$12,576.00
<b>Total Amount:</b>	\$19,876.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Backcountry Forest Monitors, Year One

## Project Scope

Working with the Adirondack Park Invasive Plant Program (APIPP) and Cornell University the Backcountry Forest Monitors Project, Adirondack Mountain Club will educate and train ADK members and supporters to identify Forest Pests and Pathogens in backcountry areas of the Lake Champlain watershed. The Backcountry Forest Monitors Project will expand the existing APIPP volunteer programs to include a Forest Pests and Pathogens monitoring component. One workshop will be organized specifically to train volunteers in backcountry forest monitoring protocol for Hemlock Woolly Adelgid (HWA) and Balsam Woolly Adelgid (BWA). In subsequent years workshops will be expanded to include Emerald Ash Borer (EAB) and Asian Longhorn Beetle (ALB). The Backcountry Forest Monitors Project seeks to educate and recruit volunteers who can monitor areas of the Lake Champlain Watershed and the Adirondack Park, which are currently not effectively surveyed by other efforts for these destructive invasives.

**Project Outcome/Deliverable:** The Backcountry Forest Monitors Project will educate ADK members and supporters about Forest Pests and Pathogens through media venues. These include writing an article for Adirondack Magazine and the Adirondack Almanack, and postings via ADK's Facebook (2/month), Twitter (1/week), and Blog platforms (2/year). AMC will also display and handout material at ADK's High Peaks Information Center (HPIC) located at the trailhead to the Eastern High Peaks Wilderness, the Adirondack Loj, and at Member Services Center in Lake George. They will also host a workshop to train volunteer stewards to identify, monitor, and report Forest Pests and Pathogens in 15 additional areas of the Lake Champlain Watershed and the Adirondack Park.

**Organization:** Adirondack Mountain Club

**Contact Person:** Cathy Pedler

**Mailing Address:** 814 Goggins Road  
Lake George, NY 12845

**Phone:** 518-668-4447

**E-mail:** cathy@adk.org

**Website:** <http://www.adk.org/>



<b>NEIWPCC Code:</b>	L-2015-030
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$7,364.00
<b>Non-federal Match:</b>	\$1,500.00
<b>Total Amount:</b>	\$8,864.00

Education  
& Outreach

2014

Local Implementation  
Grant**Barre Town and City Stormwater Education****Project Scope**

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 homeowner actions can reduce stormwater runoff that will protect the local stream and in some cases reduce property damage.

**Project Outcome/Deliverable:** Friends of the Winooski River will develop three neighborhood stormwater maps; a list of stormwater mitigation opportunities; deliver two municipal presentations; host three neighborhood walks; conduct three civic meeting presentations and provide online dissemination of information and resources.

**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@winooskiriver.org](mailto:info@winooskiriver.org)

**Website:** <http://winooskiriver.org/>

<b>NEIWPCC Code:</b>	L-2015-053
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$7,494.00
<b>Non-federal Match:</b>	\$2,500.00
<b>Total Amount:</b>	\$9,994.00

Education  
& Outreach

2014

Local Implementation  
Grant**Boquet River Gateway Trail & Fisherman's Path (Signage and Access)****Project Scope**

The project will establish the Gateway Trail by promoting the importance of the Boquet River through establishing a better fishing access site and installing trash receptacles, preventing erosion at the existing boat launch, and by supporting the views of the Boquet River Association, The Nature Conservancy, Lake Champlain Basin Program and the Town of Willsboro by creating interpretive educational signs that discuss the various features of the Boquet River and Lake Champlain along the Gateway Trail.

**Project Outcome/Deliverable:**

The measureable project outcomes will be the installation of the signs and receptacles, creation of a safe fishing access, and installation of the water bars at the town boat launch site. This project ultimately will encourage preservation and education about the area, and encourage residents to take pride in one of the community's most significant and expansive natural areas.

**Organization:** Town of Willsboro Parks & Recreation

**Contact Person:** Town Administrator

**Mailing Address:** PO Box 370  
5 Farrell Road, Willsboro, NY  
12996

**Phone:** 518-963-8668

**E-mail:** [dptytownclerk@willex.com](mailto:dptytownclerk@willex.com)

**Website:** <http://www.townofwillsboro.com/>



**NEIWPCC Code:**

**Date Complete:** OPEN

**Grant Amount:** \$7,500.00

**Non-federal Match:**

**Total Amount:**

Education  
& Outreach

2014

Local Implementation  
Grant**Burlington School District Initiative- Floating Classrooms****Project Scope**

The CSC's Burlington School District (BSD) Initiative will serve every BSD elementary school through our Floating Classrooms program in 2015. The BSD Initiative uses a STEM focused curriculum aligned with the newly state adopted Next Generation Science Standards and provides a multi-visit model that involves a session at the CSC in the fall and spring and one in-class session during the winter. By educating entire grade levels, the CSC is effectively engaging an entire generation of students within our community. Influencing students to foster feelings of stewardship and ownership at a young age will blossom into a larger cultural focus on environmental factors and the health of our lake in the future.

**WCAX Link:**

<http://www.wcax.com/category/166239/video-landingpage?clipId=10615631&autostart=true>

**Project Outcome/Deliverable:** The Burlington School District Initiative will increase student interest level in science, foster a sense of stewardship among youth, and create Lake access for all BSD students.

**Organization:** Lake Champlain Community Sailing Center

**Contact Person:** Jen Gulmaraes

**Mailing Address:** PO Box 64818  
Burlington, VT 05406

**Phone:** 802-864-2499

**E-mail:** [jen@communitysailingcenter.org](mailto:jen@communitysailingcenter.org)

**Website:** <http://communitysailingcenter.org/>



<b>NEIWPCC Code:</b>	L-2015-046
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$12,727.00
<b>Total Amount:</b>	\$20,227.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Champlain Valley Native Plant Restoration Nursery

## Project Scope

The goal of this project is to provide an opportunity for the public to learn about the benefits of planting native plant species and the increased concern about the spread of non-native invasive species. The nursery allows the District to promote the value of native tree and shrub plantings for erosion and pollution control, while focusing on the positive effect individuals can have by participating in restoration practices.

**Project Outcome/Deliverable:** The District will continue to provide important support and outreach for the Nursery, which is involved in both providing native species for local restoration plantings and in important disease resistance studies that may gain importance with the advent of climate change.

**Organization:** Poultney Mettowee NRCD

**Contact Person:** Hilary Solomon

**Mailing Address:** PO Box 209  
Poultney, Vermont 05764

**Phone:** 802-287-8339

**E-mail:** pmnrcd@gmail.com

**Website:** <http://www.pmnrcd.org/>



<b>NEIWPCC Code:</b>	L-2014-015
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$6,548.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$6,548.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Essex County Wacky Water Education Summer Program

## Project Scope

The Essex County Soil and Water Conservation District will sponsor an intern to provide watershed education to multiple Summer Youth programs throughout Essex County. The SWCD will work directly with the Essex County Youth Bureau, who assist with 9 (nine) youth programs within the Lake Champlain Basin. The intern will conduct various watershed outreach and educational activities at the youth programs. The intern will also develop potential field trip lessons for “real world” experiences.

**Project Outcome/Deliverable:** The intern will develop a solid curriculum of watershed activities for the youth programs to use in future years with their participants.

**Organization:** Essex County Soil and Water Conservation District

**Contact Person:** David Reckahn

**Mailing Address:** PO. Box 407  
3 Sisco Street, Westport NY  
12993

**Phone:** 518-962-8225

**E-mail:** dreckahn@westelcom.com

**Website:** <http://www.essexcountyswcd.org/>



<b>NEIWPCC Code:</b>	L-2015-050
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$4,190.00
<b>Non-federal Match:</b>	\$ 780.00
<b>Total Amount:</b>	\$4,970.00

Education  
& Outreach

2014

Local Implementation  
Grant**Kitchen Table Talks: Bringing 'Ag' programs and alternatives  
home to farmers in Vermont****Project Scope**

Small and non-traditional farms are increasing in numbers throughout Vermont, including the Lake Champlain Basin. However, since they are not regulated in the same manner as large and medium farms, there is a misconception that Accepted Agricultural Practices (AAPs) and Best Management Practices (BMPs) that serve to protect land and water, do not necessarily apply to them. With increasing attention on Lake Champlain and its pending Total Maximum Daily Load (TMDL) for phosphorus, it is essential for all farmers to know what regulations exist, what programs exist, and who to approach for either technical or financial resources to help them meet or exceed AAPs. Winooski NRCD 'Kitchen Table Talks' will reach small and nontraditional farms by developing materials that are not yet available and increasing our visibility as the go-to resource to help them manage meeting AAPs and public expectations.

**Project Outcome/Deliverable:** As this program seeks to promote Best Management Practices (BMP) awareness throughout the Basin among small farms, the success of the program will be measured primarily in terms of the number of farms reached and directly engaged in this program.

**Organization:** Winooski NRCD

**Contact Person:** Corrina Parnapy

**Mailing Address:** 617 Comstock Road  
Berlin, VT 05602

**Phone:** 802-828-4493 x110

**E-mail:** [corrina@winooskinrcd.org](mailto:corrina@winooskinrcd.org)

**Website:** <http://winooskinrcd.org/>



<b>NEIWPCC Code:</b>	L-2015-041
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$ 6,400.00
<b>Total Amount:</b>	\$13,900.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Lake Champlain Headwaters Environmental Issues Educator

## Project Scope

The Education and Outreach grant will provide renewed funding for a half-time educator position to be based at Paul Smith's College and deployed in the upper watershed of the Saranac River and the New York State side 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.

**Project Outcome/Deliverable:** The final report will include attendance counts, program locations and program descriptions at the close of the summer season.

**Organization:** Paul Smith's College AWISP

**Contact Person:** Eric Holmlund

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

**Phone:** 518-327-6341

**E-mail:** eholmlund@paulsmiths.edu

**Website:** [http://www.adkwatershed.org/  
invasive-species/stewardship-program](http://www.adkwatershed.org/invasive-species/stewardship-program)



<b>NEIWPCC Code:</b>	L-2015-060
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,000.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Lake Champlain ROV (Remotely Operated Vehicle) Programs

## Project Scope

LCMM would like to expand it's capacity to provide under water history and ecology programs but can only do so if a new Remotely Operated Vehicle (ROV) is purchased. With funding from LCBP to help purchase a new ROV, LCMM will match the LCBP award through other foundation and private donations.

**Project Outcome/Deliverable:** LCMM will double our capacity to provide on water ecology and history programs for children and adults.

**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Sarah Judd

**Mailing Address:** 4472 Basin Harbor Rd.  
Vergennes, Vermont 05491

**Phone:** 802-475-2022

**E-mail:** sarahj@lcmm.org

**Website:** <http://www.lcmm.org/>



<b>NEIWPCC Code:</b>	L-2015-004
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$47,656.00
<b>Total Amount:</b>	\$55,156.00

Education  
& Outreach

2014

Local Implementation  
Grant

## LCC April Stools' Day - Pick up the Parks Campaign

## Project Scope

LCC will coordinate a series of "April Stools' Day" events at parks, recreation areas and trail sites around the watershed to clean parks of dog waste. April Stools' Day will use a fun event to help raise awareness of the environmental and health effects of left behind pet waste, enlist citizens in taking care of their public parks, and reduce the nutrients and bacteria going into our waterways with spring melt.

**Project Outcome/Deliverable:** The April Stools' Day program will result in a community toolkit for co-hosting an April Stools' Day events. At least ten park clean-ups throughout the watershed. LCC will help raise awareness of the environmental and public health problems associated with dog waste, enlist citizens in cleaning up public parks and recreation areas, foster positive behavior and reduce the amount of nutrients and bacteria running off into waterways.



**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](mailto:lorif@lakechamplaincommittee.org)

**Website:** <http://www.lakechamplaincommittee.org/>



<b>NEIWPCC Code:</b>	L-2015-039
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$ 5,605.00
<b>Total Amount:</b>	\$13,105.00

Education  
& Outreach

2014

Local Implementation  
Grant

## MRBA Bugworks

## Project Scope

Bugworks is a hands-on program for students in grades 5-6 to explore the aquatic ecosystems around them. The MRBA hires an educator to teach students in the Missisquoi watershed about the natural, living world of the rivers, ponds, and streams within their community. They then learn about how to evaluate stream health. The program is tailored to the time and needs of participating teachers and typically involves both indoor and outdoor activities. At the conclusion of the program students are expected to produce a report specific to their educational level. Bugworks meets Vermont Power Standards, which are a set of state standards deemed critical for student success.

**Outcome/Deliverable:** By the end of December 2015, the MRBA will have offered the Bugworks program to the 5th and 6th grade teachers of all 14 watershed elementary schools. MRBA will have also reached after school and summer programs within the watershed along with appropriate community events. The MRBA anticipates 10 – 20 classrooms/groups will participate in the 2015 Bugworks program.

**Organization:** Missisquoi River Basin Association

**Contact Person:** Lindsey Wight

**Mailing Address:** 2839 VT Rt 105  
East Berkshire, VT 05447

**Phone:** 802-393-0076

**E-mail:** MRBA@pshift.com

**Website:** <http://mrbavt.com/>



<b>NEIWPCC Code:</b>	L-2015-035
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$5,170.00
<b>Non-federal Match:</b>	\$1,485.00
<b>Total Amount:</b>	\$6,655.00

Education  
& Outreach

2014

Local Implementation  
Grant

## North Country Stormwater Tradeshow and Conference

## Project Scope

The North Country Stormwater Tradeshow and Conference is a staple educational event that is held annually in the Lake George region. The Tradeshow brings stormwater management experts and product vendors together with the goal of educating local consultants, contractors, elected officials and municipal employees on the best and most up-to-date stormwater management techniques and projects. The Tradeshow affords the opportunity for the best professional stormwater education found on the NY side of the Lake Champlain Basin.

**Project Outcome/Deliverable:** Over 150 local engineers, landscape architects, code enforcement officers and municipal staff and elected officials will be educated on up-to-date stormwater projects, products and regulations.

**Organization:** Champlain Watershed Improvement Coalition of NY

**Contact Person:** Beth Gilles

**Mailing Address:** PO Box 765  
Lake George, NY 12845

**Phone:** 518-668-5773

**E-mail:** bgilles\_rpb@verizon.net

**Website:** <http://www.cwicny.org/>



<b>NEIWPCC Code:</b>	L-2015-040
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,500.00
<b>Non-federal Match:</b>	\$3,500.00
<b>Total Amount:</b>	\$7,000.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Saranac River Trail 2015: Talks, Treks and Tasks

## Project Scope

The Friends of the Saranac River Trail requested funds to facilitate a 4 part lecture series, run 6 themed “treks” on the SRT, conduct a community design charrette, and design and sustain a database to track volunteer and funder information and assist with marketing efforts. The lecture series will help engage and educate the community on the work of the SRT. We hope to identify more volunteers and donors through the series. The database will help our organization improve its marketing, education and outreach efforts.

**Project Outcome/Deliverable:** SRT will organize and conduct a 4-part lecture series, 6 themed treks, a community charrette and design and sustain a database that will create and maintain an event mailing list and database that we estimate will include at least 500 names of volunteers, donors and colleague organizations.

**Organization:** Friends of Saranac River Trail

**Contact Person:** Jesse Feiler

**Mailing Address:** 32 MacDonough Street, #1  
Plattsburgh, N.Y. 12901

**Phone:** 518-335-5915

**E-mail:** [jfeiler@saranacrivertail.org](mailto:jfeiler@saranacrivertail.org)

**Website:** <http://saranacrivertail.org/>



<b>NEIWPCC Code:</b>	L-2015-047
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,850.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$3,850.00

Education  
& Outreach

2014

Local Implementation  
Grant

## School Outreach Program and Plattsburgh's Military Heritage Publication

## Project Scope

The CCHA is requesting funds for a two part education and outreach project. The first project is comprised of a 4 part educational outreach program for elementary schools. The CCHA will partner with staff at the Saranac Elementary school to create a series of local history programs for 4th graders. Jan Couture, retired teacher and current Town of Saranac Historian will work with Melissa Peck, Grant Coordinator and CCHA Director, to design an interactive program covering the basics of Clinton County's Settlement, Military Heritage, Industrial Development, and Attractions. For the second part of the project, Melissa Peck will work with Dr. Richard Frost, Author and Local Historian, to research and produce a book on the history of Clinton County's military reservation.

**Project Outcome/Deliverable:** The elementary school outreach program will offer a variety of opportunities for photographic deliverables, in addition to the summarized results from prior/acquired knowledge assessments. The deliverable for Military Heritage Publication will be the printed version of the book.

**Organization:** Clinton County Historical Association

**Contact Person:** Melissa A. Peck

**Mailing Address:** 98 Ohio Avenue  
Plattsburgh, NY 12903

**Phone:** 518-561-0340

**E-mail:** Director@ClintonCountyHistorical.org

**Website:** <http://www.clintoncountyhistorical.org/>



<b>NEIWPCC Code:</b>	L-2015-061
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$7,500.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$7,500.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Skidder Bridge Free Loaner Program

## Project Scope

The proposed project will continue to provide technical assistance and personnel support to the wood products industry on the New York side of Lake Champlain and within the Lake Champlain Basin. Efforts will include educational programming in the form of hands on workshops on bridge placement and construction provided to loggers and others interested in skidder bridges use. In addition, on-going programming will continue to provide a professional forester as a subcontractor to coordinate workshop schedules, conduct workshops and coordinate a skidder bridge loaner program that incorporates wood products industry host sites at wood processors ie. International Paper, Ward Lumber etc. maintain records of bridge loans, location, timber harvested over each bridge, transportation logistics and marketing/outreach.

**Project Outcomes/Deliverables:** The skidder bridge loaner Education and Outreach program will provide training for loggers and others interested in learning how to construct timber skidder bridges for use in implementing BMP stream crossings for timber harvest. Two workshops will be held in conjunction with NYS DEC, BOCES and NYS Logger Training. In addition, the inventory of Skidder bridges owned by the Greater Adirondack RC&D Council will be loaned out to loggers or farmers/landowners needing the bridges to access timber harvesting operations. Records will be maintained on GPS coordinate locations, period of use and amount of timber harvested across each bridge. The skidder bridges and logger training in this Best Management Practice will help to protect water quality by reducing soil erosion, reduce phosphorous inputs from soil erosion, increase economic viability of forest management, encourage the use of Best Management Practices in Forestry and improve soil health.

**Organization:** Greater Adirondack RC&D

**Contact Person:** Victor J. Putman

**Mailing Address:** 394 Schroon River Road  
Warrensburg, NY 12885

**Phone:** 518-963-8996

**E-mail:** vjp543@willex.com

**Website:**



<b>NEIWPCC Code:</b>	L-2015-048
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,000.00
<b>Non-federal Match:</b>	\$13,305.00
<b>Total Amount:</b>	\$20,305.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Sparking Vermont's Dam Removal Efforts to Restore Fish Habitat

## Project Scope

VNRC is working to elevate the issue of removing dams that no longer serve a purpose in order to restore natural watershed and riverine process, reduce flood risk, increase community resiliency, and improve fish habitat and overall ecological integrity. VNRC will work with project partners to spread the word about the liabilities that dams currently pose, and the many resources available to willing small dam owners for removal. While excitement around the issues is growing, VNRC will coordinate the efforts to enable success.

**Project Outcome/Deliverable:** Together with project partners Vermont Natural Resources Council expects to generate a robust outreach and media campaign that will reach out to thousands of Vermonters.

**Organization:** Vermont Natural Resources Council

**Contact Person:** Stephanie Mueller

**Mailing Address:** 9 Bailey Avenue  
Montpelier, VT 05602

**Phone:** 802-223-2328

**E-mail:** [smueller@vnrc.org](mailto:smueller@vnrc.org)

**Website:** <http://vnrc.org/>



<b>NEIWPCC Code:</b>	L-2015-038
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 3,500.00
<b>Non-federal Match:</b>	\$17,318.00
<b>Total Amount:</b>	\$20,818.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Stormwater Education for LaPlatte Watershed Citizens and Towns

## Project Scope

This project aims to further educate citizens and municipalities in two non MS4 LaPlatte watershed towns about existing stormwater, water quality, and geomorphic compatibility issues and how citizens and towns can be optimizing the values and functions of surface waters in their towns. With guidance from a contracted technical consultant and town and county representatives, LCA will synthesize results of technical reports relating to stormwater, water quality, identify town considerations, and develop presentations for each town that will include implementation strategies to help avoid stormwater impaired status in non MS4 towns.

**Project Outcome/Deliverable:** The project outcome will result in more municipal officials being informed about stormwater issues. Final deliverables will include Power Point presentations and concise educational materials that summarize documented water quality issues and management strategies for the non MS4 towns of Hinesburg and Charlotte. This information will also be available to the public.

**Organization:** Lewis Creek Association

**Contact Person:** Martha Illick

**Mailing Address:** 442 Lewis Creek Road  
Charlotte, VT 05445

**Phone:** 802-425-2002

**E-mail:** martyillick@gmail.com

**Website:** <http://www.lewiscreek.org/>



<b>NEIWPCC Code:</b>	L-2015-052
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,000.00
<b>Non-federal Match:</b>	\$ 635.00
<b>Total Amount:</b>	\$3,635.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Sustainable Outdoor Leadership and Education (S.O.L.E.) Camp

## Project Scope

Established with the goal of educating youth to be naturalists and conservation stewards, the Sustainable Outdoor Leadership and Education (S.O.L.E.) Camp pairs adventure with nature through exploration and games. Campers learn through hands-on activities about water quality testing, wildlife tracking, tree identification, outdoor skills, invasive species identification and removal, studies in ecosystem interdependence, energy flows, food webs – and much more.

In the summer of 2014, WVPD held two inaugural one-week camp sessions. Based on the success of this pilot program, WVPD is expanding and improving the camp in 2015, and is seeking funding for supplies, staff support, and scholarship monies. This directly supports Task 3.5.1: in *Opportunities for Action*: “Implement annual local grants program that provides financial support for local organizations working to address tasks in OFA, especially for priority issues (e.g., phosphorus, toxins, and aquatic invasive species) and education and outreach.”

**Project Outcome/Deliverable:** This project will result in four weeks of a high-quality conservation day camp to 60-80 area youth with no financial barriers to access.

**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](mailto:info@wvpd.org)

**Website:** <http://www.wvpd.org/>



<b>NEIWPCC Code:</b>	L-2015-036
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,300.00
<b>Non-federal Match:</b>	\$12,705.00
<b>Total Amount:</b>	\$20,005.00

Education  
& Outreach

2014

Local Implementation  
Grant

## Watershed Education for Backyard and Small Farmers

## Project Scope

Develop and implement a series of up to 6 local educational programs for small farms, homesteaders, and backyard farmers in our region. The programs will provide 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.

## Project Outcome/Deliverable:

Final results will include:

1. Backyard farmers and small farmers in our region will have a better understanding of the importance of the AAPs and will work to prevent nutrients from entering our waterways;
2. Better understanding of the number of individuals that have homesteads or would be considered small farms in Franklin County; and
3. Increased awareness of programs that can help with nutrients and best management practices.

**Organization:** Friends of Northern Lake Champlain

**Contact Person:** Denise Smith

**Mailing Address:** PO Box 58  
Swanton, VT 05488

**Phone:** 802-355-0694

**E-mail:** denisefnlc@gmail.com

**Website:** <http://www.northernlakechamplain.org/>



<b>NEIWPCC Code:</b>	L-2015-037
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$ 4,000.00
<b>Total Amount:</b>	\$11,500.00

Education  
& Outreach

2013

Local Implementation  
Grant**Let it Rain: Soak it for Schools!****Project Scope**

The Let it Rain: Soak it for Schools! Program is a result of a growing need to both foster children's awareness about stormwater issues and to increase the number of green stormwater infrastructure installations on school campuses throughout the Lake Champlain Basin. The demonstrated success of the first years of the Let it Rain Stormwater Mitigation Program begins to address concerns of runoff, specifically in urban areas, but further adoption is needed.

**Project Outcome/Deliverable:** By developing materials for children, Winooski NRCD will reach a new audience and encourage hands-on investigations that can lead to additional demonstration sites. WNRCD staff will develop a "toolbox" for stormwater issues which will be used by schools to design and implement the stormwater mitigation projects.

**Organization:** Winooski NRCD

**Contact Person:** Sophie Sauve

**Mailing Address:** 617 Comstock, Ste 1  
Berlin, VT 05602

**Phone:** 802-828-4493

**E-mail:** [sophie@winooskinrcd.org](mailto:sophie@winooskinrcd.org)

**Website:** <http://winooskinrcd.org/>



<b>NEIWPC Code:</b>	L-2014-036
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$7,470.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$7,470.00

Organizational  
Support

2014

Local Implementation  
Grant

## AmeriCorps Member Sponsor Match

## Project Scope

The Franklin Watershed Committee (FWC) is a duly incorporated 501(c) (3) tax exempt, non-profit organization whose goal is to improve the Lake Carmi Watershed and its principle body of water, Lake Carmi. The FWC strives to achieve its mission by working closely with lake residents and farmers to limit the impact of septic, shoreline erosion and agricultural activity on the phosphorus levels in Lake Carmi. This grant would supply the match needed for an ECO AmeriCorps Member to work under the direction of the FWC coordinator and board.

**Project Outcome / Deliverable:** The ability to sponsor an ECO-AmeriCorps Member will provide the Franklin Watershed Committee with a valuable assistant who will help achieve the goals stated in EPA Federally approved TMDL for Lake Carmi such as completing shoreline erosion and septic projects pursuant to the VT-DEC Lake Wise Program, planning and conducting outreach events, assisting in initiating agricultural best management practices, implementing planting projects, and managing the group website.

**Organization:** Franklin Watershed Committee

**Contact Person:** Jessica Draper

**Mailing Address:** P.O. Box 82  
Franklin, VT 05457

**Phone:** 802.393.0775

**E-mail:** jdraper96@gmail.com

**Website:** [http://www.franklinvermont.com/watershed\\_committee.htm](http://www.franklinvermont.com/watershed_committee.htm)



<b>NEIWPCC Code:</b>	PO# 10980
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,000.00

Organizational  
Support

2014

Local Implementation  
Grant

## Boquet River Association Organizational Support for 2015

## Project Scope

The Boquet River Association will complete several mailings including: 3 newsletters to 800 members and potential members. BRASS is also implementing water testing at 16 locations in the watershed. BRASS hopes to increase “membership” and “friend” numbers by providing needed information to our supporters as well as providing important water chemistry data to aid with decision making and project prioritization.

**Project Outcome/Deliverable:** BRASS expects to increase membership, increase knowledge of the river, increase our “friends” category to have more volunteers, add to the water quality data that BRASS collects annually, and to become financially stable.

**Organization:** Boquet River Association

**Contact Person:** Anita Deming

**Mailing Address:** P.O Box 374  
Elizabethtown, NY 12932

**Phone:** 518-962-4810 ext 409

**E-mail:** [info@boquetrivier.org](mailto:info@boquetrivier.org)

**Website:** <http://boquetrivier.org/>



<b>NEIWPCC Code:</b>	PO# 12071
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$2,068.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$2,068.00

Organizational  
Support

2014

Local Implementation  
Grant**Friends of the Winooski River Organizational Support****Project Summary**

Though the design and content of the Friends current website meets the Friends of the Winooski River's needs. However, it is on a custom content management system (CMS) that is obsolete, making it difficult to maintain beyond basic content updates. FWR will relay this content to a new platform so it is easier to maintain and to add new features. In addition, FWR will organize its photo collection. FWR has several thousand photos but they are not well documented with keywords making it difficult to find and use them.

**Project Outcome/Deliverable:** The website will be transitioned to new content management system and a photo cataloging structure will be created to organize the FWR set of photos to better serve communication and outreach needs.

**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@winooskiriver.org](mailto:info@winooskiriver.org)

**Website:** <http://winooskiriver.org/>



<b>NEIWPCC Code:</b>	PO# 10950
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,000.00

Organizational  
Support

2014

Local Implementation  
Grant

## Improving Pricing at the Intervale Conservation Nursery

### Project Summary

In this project, the Intervale Center will evaluate and improve our pricing systems. This work will allow the Center to more effectively manage labor and inventory, help be more financially self-supporting and price competitive, and help the Center make good decisions as the Nursery business expands.

**Project Outcome/Deliverable:** A cost analysis and evaluation will be completed which will result in recommendations for improvements to pricing system which we can implement in 2017.

**Organization:** Intervale Center

**Contact Person:** Mandy Fischer

**Mailing Address:** 180 Intervale Road  
Burlington, VT 05401

**Phone:** 802-660-0440 x 108

**E-mail:** [travis@intervale.org](mailto:travis@intervale.org)

**Website:** <http://www.intervale.org/>



<b>NEIWPCC Code:</b>	PO# 10947
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,992.28
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$3,992.28

Organizational  
Support

2014

Local Implementation  
Grant**Lake Champlain Committee Capacity Building Grant****Project Scope**

LCC will undertake a high priority project that will strengthen LCC's organizational capacity, educational reach and financial stability. LCC will replace it's display board and educational posters with more durable updated designs that better showcase LCC's mission of a clean, accessible lake and foster citizen engagement in stewardship.

**Project Outcome/Deliverable:** The final product will be new educational displays and photo boards that effectively communicate LCC's goal of clean, accessible water and the collective stewardship necessary to achieve it

**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:** <http://www.lakechamplaincommittee.org/>



<b>NEIWPCC Code:</b>	PO# 10984
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,000.00

Organizational  
Support

2014

Local Implementation  
Grant

## Missisquoi River Basin Association Organizational Support

## Project Scope

The Missisquoi River Basin Association (MRBA) seeks funding to support current projects and the long-term effectiveness of efforts to reduce the phosphorus load flowing into Lake Champlain. The requested funds will be used for general operating expenses and a portion of MRBA's part-time coordinator's salary during calendar year 2015. Each of these items is essential to the overall function of the organization and will provide support for the wide-ranging activities aimed at water quality improvement within the Missisquoi watershed.

**Project Outcome/Deliverable:** Throughout 2016 the MRBA will undertake a variety of community based volunteer activities targeted toward improving water quality and/or raising awareness of water quality issues within the Missisquoi watershed. This grant will support:

- Organize a public forum
- Organize a river clean-up
- Offer educational tools to teachers in local elementary and high schools to raise awareness around water quality issues
- Publish two newsletters and explored additional opportunities for water quality outreach through social media.
- Hold 12 monthly planning meetings for members of the MRBA Board of Directors and the public
- Perform water sampling; 12 times at 23 sites

**Organization:** Missisquoi River Basin Association

**Contact Person:** Cynthia Scott

**Mailing Address:** 75 Fairfield Street  
Saint Albans, VT 05478

**Phone:** 802-827-3360

**E-mail:** MRBA@pshift.com

**Website:** <http://mrbavt.com/>



<b>NEIWPCC Code:</b>	PO# 10979
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,850.00
<b>Non-federal Match:</b>	\$5,000.00
<b>Total Amount:</b>	\$8,850.00

Organizational  
Support

2014

Local Implementation  
Grant**Poultney Mettowee NRCD Strategic Planning****Project Scope**

PMNRCD has been through several leadership changes in recent years and now needs to complete strategic planning for the organization. PMNRCD needs to spend time planning how to best use limited resources in order to meet the organization's mission and goals.

**Project Outcome/Deliverable:** At the end of this planning stage, the District will have a clear one-year strategic plan and a five year strategic plan that can be used to guide our project development, partnerships, and funding requests.

- 1) Meeting Notes
- 2) Written outline of our findings
- 3) Completed 5-Year Plan
- 4) Annual Plan
- 5) Newsletter

**Organization:** Poultney Mettowee NRCD**Contact Person:** Hilary Solomon**Mailing Address:** PO Box 209  
Poultney, VT 05764**Phone:** 802-287-8339**E-mail:** pmnrncd@gmail.com**Website:** <http://www.pmnrcd.org/>

<b>NEIWPCC Code:</b>	PO# 10992
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,930.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$3,930.00

Organizational  
Support

2014

Local Implementation  
Grant

## Strategic Watershed Plan

## Project Scope

Lamoille County Conservation District's (LCCD's) Strategic Watershed Plan will provide a three-year strategic plan for LCCD to align Lamoille County's natural resource concerns with Lamoille Watershed and Vermont's state water quality concerns. The goal of the project is to build a foundation of deliverables for LCCD to complete, based on relevant and up to date technical and informational resources.

**Project Outcome/Deliverable:** The tangible products will include a list of pertinent water quality publications and action items, a well-rounded and well-attended Local Working Group Meeting, a series of Supervisory Board Strategic Plan Meeting Minutes, and a Final Strategic Watershed Plan.

**Organization:** Lamoille County NRCD

**Contact Person:** Kim Komer

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

**Phone:** 802-888-9218 ext.113

**E-mail:** kimberly.komer@vt.nacdnet.net

**Website:** www.lcnrcd.com



<b>NEIWPCC Code:</b>	PO# 10951
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,000.00

Organizational  
Support

2014

Local Implementation  
Grant

## Streamlining and Freshening Communications to Build FMR Organizational Sustainability

### Project Scope

In 2012, with organizational sustainability as a main objective, FMR drafted a Fundraising Plan to address an annual gap between income and expenses and identify opportunities for closing it. Now, FMR will develop a Communications Plan that ensures thoughtful and strategic communications reflecting the organization's mission. Friends of Mad River propose pairing this planning with a suite of design work to streamline and freshen the communications forming the backbone of our relationship with members.

**Project Outcome/Deliverable:** FMR will develop a communications plan, streamline communications designs (including updated paper newsletter template, three to five member e-mail templates, and one organizational brochure), and incorporate these designs into 2015 fall communications and onward.

**Organization:** Friends of Mad River

**Contact Person:** Corrie Miller

**Mailing Address:** PO Box 255  
Waitsfield, VT 05763

**Phone:** 802-496-9127

**E-mail:** friends@madriver.com

**Website:**



<b>NEIWPCC Code:</b>	PO# 10976
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,893.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$3,893.00

Organizational  
Support

2014

Local Implementation  
Grant**What in the World is the Winooski Conservation District? Increasing visibility and accessibility of the Winooski Natural Resources Conservation District.****Project Scope**

This project aims to increase the Winooski Natural Resources Conservation District's visibility throughout the Lake Champlain Basin and beyond. As the State's largest and most populated Conservation District, landowners and the general public will benefit from understanding the District's role beyond the highly visible Annual Tree Sale. Many landowners could gain from the many relevant and available services WNRCD provides. The project will also round-out information compiled as part of a matching grant from the Natural Resources Conservation Commission (NRCC) which entails compiling a thorough natural resources inventory for our District.

**Project Outcome/Deliverable:** This project will provide a summary of that work in timeless outreach materials.

**Organization:** Winooski NRCD**Contact Person:** Corrina Parnapy**Mailing Address:** 617 Comstock, Suite 1  
Berlin, VT 05602**Phone:** (802) 828-4493 x110**E-mail:** [corrina@winooskinrcc.org](mailto:corrina@winooskinrcc.org)**Website:** <http://winooskinrcc.org/>

<b>NEIWPCC Code:</b>	PO# 10974
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$3,700.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$3,700.00

## Pollution Prevention

Pollution  
Prevention

2014

Local Implementation  
Grant

## Berthiaume Conservation Project in Fairfax, Vermont

## Project Scope

The Vermont Land Trust (VLT) is working to secure permanent, deeded conservation restrictions on the 329-acre Berthiaume property, a certified organic dairy farm lying just east of the St. Albans City Reservoir in Fairfax, Vermont. The property, comprised of 123 acres, will be conserved with a conservation easement donated by Walter and Diane Berthiaume. The requested LCBP funds will cover a portion of the project costs associated with the administration of this donation.

**Organization:** Vermont Land Trust

**Contact Person:** Britt Haselton

**Mailing Address:** PO Box 850  
Richmond, VT 05477

**Phone:** 802-861-6410

**E-mail:** britt@vlt.org

**Website:** www.vlt.org

## Project Outcome/Deliverable:

- 123 acres protected from future subdivision, including 111 acres of forest and 12 acres of old pasture;
- 22 acres of wetlands and naturally vegetated buffer protected by Surface Water Protection Zones;
- 50' SWPZ buffer placed along 1,000' of the headwaters of Beaver Meadow Brook, a tributary of the Lamoille River.



<b>NEIWPCC Code:</b>	L-2015-008
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$ 7,000.00
<b>Non-federal Match:</b>	\$63,650.00
<b>Total Amount:</b>	\$70,650.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Boquet River Stream Restoration Project

## Project Scope

The Boquet River Stream Restoration Project will restore and enhance habitat on 300' of stream in Essex, NY. The property has an eroding bank 12' tall and 300' in length that is losing at least 2' or more each year representing 250 cubic yards of soil that could be lost into Lake Champlain each year.

**Project Outcome/Deliverable:** The project will stabilize the bank with erosion blankets, woody material and riparian plantings. The woody materials and riparian plantings will also create and enhance habitat.

**Organization:** Essex County SWCD

**Contact Person:** David Reckahn

**Mailing Address:** Box 407  
Westport NY 12993

**Phone:** 518-962-8225

**E-mail:** dreckahn@westelcom.com

**Website:** <http://www.essexcountyswcd.org/>



<b>NEIWPCC Code:</b>	L-2015-022
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$20,000.00
<b>Non-federal Match:</b>	\$ 6,500.00
<b>Total Amount:</b>	\$26,500.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Champlain Valley Equipment Storm and Roof Water Management

## Project Scope

Champlain Valley Equipment located in St. Albans Town has a large area of impervious surface. Downstream from the site there is a tremendous amount erosion. This site was identified in the 2014 St. Albans Town Stormwater Master Plan Report. The project will be to design and install a gutter system to capture roof run-off and overland flow from a gravel parking area. The water will be re-directed to a cistern which will be installed for the purpose of using the water to wash equipment. Champlain Valley Equipment will maintain the system. This project is important because it addresses a current stormwater need on a private site that is impacting a very impaired watershed and is a highly visible project for the region.

**Project Outcome/Deliverable:** Reduction of the nonpoint source phosphorus load by capturing and re-using some of their roof water and preventing water from moving sediment off the gravel lot adjacent to their building.

**Organization:** Friends of Northern Lake Champlain

**Contact Person:** Denise Smith

**Mailing Address:** PO Box 58  
Swanton, VT 05488

**Phone:** 802-355-0494

**E-mail:** denisefnlc@gmail.com

**Website:** <http://www.northernlakechamplain.org/>



<b>NEIWPCC Code:</b>	L-2015-003
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$19,000.00
<b>Non-federal Match:</b>	\$ 4,050.00
<b>Total Amount:</b>	\$23,050.00

Pollution  
Prevention

2014

Local Implementation  
Grant**Evaluating Stormwater Pond Performance and Opportunities for Improvement:  
Using floating restorers to improve stormwater pond efficiency in S Burlington****Project Scope**

This project focuses on monitoring the existing efficacy of a stormwater retention pond located at Quarry Ridge Townhome Development followed by the installation of a floating restorer (a floating wetland system) designed to remove pollutants. There are two phases to the project: (1) one year of monitoring water quality inputs and outputs of the pond to establish its baseline performance related to treating stormwater runoff and (2) one year of monitoring following the design and implementation of a floating restorer that targets the pond's observed water quality issues. The floating restorer will be carefully designed to include plants that target pollutants derived from stormwater runoff over impervious surfaces, which may include but are not limited to, nitrogen, phosphorus, metals, temperature and bacteria.

**Project Outcome/Deliverable:** The overall goal of the project is to evaluate the potential water quality benefits from the use of floating restorers in Vermont's stormwater ponds.

**Organization:** City of South Burlington

**Contact Person:** Tom DiPietro

**Mailing Address:** 104 Landfill Road  
South Burlington, VT

**Phone:** 802-658-7961

**E-mail:** [tdipietro@sburl.com](mailto:tdipietro@sburl.com)

**Website:** <http://www.sburl.com/>



<b>NEIWPCC Code:</b>	L-2015-021
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$20,000.00
<b>Non-federal Match:</b>	\$18,000.00
<b>Total Amount:</b>	\$38,000.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Improving Aquatic Organism Passage on Crossett Brook at Hayes Road

## Project Scope

Crossett Brook and its tributaries flow eastward from Crossett Hill in Duxbury, VT and then turn north, continuing into the Winooski River. The lower waters support wild rainbow and brown trout communities, while the upper reaches contain only native brook trout. On Hayes Road in Duxbury, brook trout habitat connectivity has been disrupted by an undersized failing culvert that has become perched, creating a height barrier for fish passage.

**Project Outcome/Deliverable:** The objective of this project is to improve habitat within Crossett Brook and its tributaries by providing a connected, stable habitat network for native brook trout. Reconnecting these waters will support lower water temperatures needed by brook trout to thrive and promote flood resiliency within the system.

**Organization:** Winooski NRCD

**Contact Person:** Corrina Parnapy

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

**Phone:** 802-828-4493 x110

**E-mail:** [corrina@winooskinrcd.org](mailto:corrina@winooskinrcd.org)

**Website:** <http://winooskinrcd.org/>



<b>NEIWPCC Code:</b>	L-2015-012
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$20,000.00
<b>Non-federal Match:</b>	\$40,500.00
<b>Total Amount:</b>	\$60,500.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Lake View Estates Stormwater Mitigation Project

## Project Scope

This project will create several small stormwater retrofit projects within a 332-acre watershed. The projects have been identified in a 2014 Warren County Soil and Water Watershed study. They will serve as demonstration projects for the rest of the watershed where they can be duplicated by the Town and homeowners.

**Project Outcome/Deliverable:** The outcome or deliverables of the Lake View Estates Stormwater Mitigation project is to install several small stormwater retrofits that will treat stormwater utilizing different methods including vegetated swales, bioretention areas, streambank buffers and dry wells.

**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](mailto:rrath@lakegeorgeassociation.org)

**Website:** <http://lakegeorgeassociation.org/>



<b>NEIWPC Code:</b>	L-2015-013
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$13,430.00
<b>Non-federal Match:</b>	\$ 5,030.00
<b>Total Amount:</b>	\$18,460.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Lamplight Acres Green Streets

## Project Scope

Lamplight Acres is a residential development in Williston, Vermont constructed in the 1960's. It was built without a storm sewer system to capture and direct stormwater flow away from the roads. During large storm events and particularly in the spring thaw, significant ponding is evident throughout the neighborhood leading to seasonally unsafe road conditions. The Town of Williston is proposing to complete a portion of the Lamplight Acres Green Streets Study, drainage area A-1, by installing low impact development (LID) stormwater practices in the form of infiltration trenches and/or rain gardens.

**Project Outcome/Deliverable:** Implementation of 216 linear feet of a combination infiltration trench/rain garden system which is anticipated to achieve high removal efficiencies for suspended sediments, metals and phosphorus. These systems will be designed to capture and treat the water quality volume (WQV) from 3.21 in compliance with the VSMM and additional storage to capture spring thaw runoff.

**Organization:** Town of Williston Public Works

**Contact Person:** James Sherrard Jr.

**Mailing Address:** 7878 Williston Rd.  
Williston, VT 05495

**Phone:** 802-878-1239

**E-mail:** jsherrard@willistonvt.org

**Website:** <http://www.town.williston.vt.us/>



<b>NEIWPCC Code:</b>	L-2015-006
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$20,000.00
<b>Non-federal Match:</b>	\$33,026.29
<b>Total Amount:</b>	\$53,026.29

Pollution  
Prevention

2014

Local Implementation  
Grant

## Nesti Swale Phosphorus Pollution Mitigation Project

## Project Scope

The Town of Shelburne with assistance from the Vermont Department of Environmental Conservation (VTDEC) is proposing to build a gravel wetland stormwater treatment system to treat runoff from a 120 acre subwatershed of Shelburne Bay. The watershed includes about 44 impervious acres. A highly effective stormwater gravel wetland is proposed for a location on the border of Shelburne and South Burlington along a small unnamed tributary stream (aka Nesti Swale). The gravel wetland would hold approximately 2.4 acre feet of water. For the rainfall design storm of .9 inches of runoff in 24 hours the gravel wetland as designed would reduce the peak flow from the watershed by more than 90%. Pollutant loading from the upstream watershed to the gravel wetland was estimated to contribute about 40,000 lbs. of sediment and 25 lbs. of phosphorus per year. It is estimated that another 150 lbs. of phosphorus is released per year due to runoff caused erosion of the stream channel and the eroding and widening shore headland cut which will be significantly reduced as a result of this project.

**Project Outcome/Deliverable:** An eroded gully caused by the Nesti Swale down cutting into erodible Groton gravelly fine sandy loam will be stabilized. The project will use a combination of stone and plantings. The design will maintain passage for fish thru the entire channel across the property as well as create new habitat. The following tasks will be completed:

- Complete final stream reconstruction design or construction method and acquire all necessary local, state and federal permits.
- Removal of invasive species in project area using students from the Vermont Commons School, VYCC or volunteers.
- Reconstruction of a 100 meter section of stream channel

**Organization:** Town of Shelburne

**Contact Person:** Chris Robinson

**Mailing Address:** 53 Turtle Lane  
Shelburne, VT 05482

**Phone:** 802-985-3700

**E-mail:** [crobinson@shelburnevt.org](mailto:crobinson@shelburnevt.org)

**Website:** <http://shelburnevt.org/>



NEIWPCC Code:	L-2015-010
Date Complete:	OPEN
Grant Amount:	\$20,000.00
Non-federal Match:	\$44,345.00
Total Amount:	\$64,345.00

Pollution  
Prevention

2010

Local Implementation  
Grant

## Reducing Stormwater Runoff from Residential Properties

## Project Scope

This project will introduce a water quality auditing and certification protocol for residential properties in the town Shelburne, Vermont. LCI will implement a community-wide education initiative and work with participating property owners to reduce the negative impacts of individual residential properties on Lake Champlain's water quality by promoting the use of watershed best practices, including phosphorous reduction, stormwater mitigation, erosion mitigation, and elimination of animal waste, pesticides, and other toxins.

**Project Outcome/Deliverable:** The program will promote the adoption of watershed friendly property practices through the implementation of scientifically accepted management tools and performance criteria approved by the International Water Quality Council (IWQC).

**Organization:** Lake Champlain International

**Contact Person:** James Ehlers

**Mailing Address:** 531 Main Street  
Colchester, VT 05446

**Phone:** 802-434-3969

**E-mail:** james@mychamplain.net

**Website:** <http://www.mychamplain.net/>



Rain garden installed in Shelburne, VT as part of BLUE certification.



<b>NEIWPCC Code:</b>	L-2011-023
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$23,400.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$23,400.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Riparian Restoration and Stewardship

## Project Scope

This project will develop and implement riparian restoration projects on priority parcels (4 acres) as identified by applicable restoration plans. It has become apparent that site maintenance, particularly vegetation (native or invasive) management, in the years shortly after the planting can greatly improve survival and growth rates. Under this project, the Friends will also develop and execute maintenance plans for seven acres. In all aspects of this project the Friends will work with a range of partners including town conservation commissions, other town representatives, schools, the Conservation District and the US Fish and Wildlife Service (US FWS).

**Project Outcome/Deliverable:** Site assessments will be completed and site maintenance implemented on 4 acres in Marshfield, Cabot, Plainfield and Northfield. The Friends of the Winooski River will also develop planting plans and install a buffer.

**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@winooskiriver.org](mailto:info@winooskiriver.org)

**Website:** <http://winooskiriver.org/>



<b>NEIWPC Code:</b>	L-2015-014
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$19,585.00
<b>Non-federal Match:</b>	\$ 6,600.00
<b>Total Amount:</b>	\$26,185.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## St. Albans Town Hall Rain Garden

## Project Scope

The Town of St. Albans will design and install a rain garden on the Town Hall front lawn. The rain garden will treat and infiltrate stormwater runoff from approximately ½ acre of impervious surface. The rain garden will provide treatment to the first inch of rainfall in any given storm event. The Town will also install an placard to educate the public about rain gardens and stormwater impacts.

**Project Outcome/Deliverable:** This project will demonstrate how to reduce nutrient and other pollutants flowing to the lake by treating Town Hall stormwater on site. The rain garden will treat one half acre of impervious surface for the first inch of rainfall. The project will have the capacity to treat approximately 1,500 cubic feet of water.

**Organization:** Town of St Albans

**Contact Person:** Nathaniel Neider

**Mailing Address:** PO Box 37  
St Albans Bay, VT 05478

**Phone:** 802-524-7589 x108

**E-mail:** satplanner@comcast.net

**Website:** <http://www.stalbanstown.com/>



<b>NEIWPCC Code:</b>	L-2015-015
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$16,840.00
<b>Non-federal Match:</b>	\$ 3,647.00
<b>Total Amount:</b>	\$20,487.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Stormwater Reduction in the East Creek Watershed

## Project Scope

With this funding the RNRCD will hire a consultant to conduct a feasibility analysis and present design alternatives for two projects that have been identified in the East Creek and Tenney Brook Stormwater Master Plan. These locations are identified as existing stormwater problem sites in need of potential retrofit. This Stormwater Master Plan was completed by Watershed Consulting Associates in July 2014.

**Project Outcome/Deliverable:** This project will produce many outcomes including improving drainage conditions through erosion repair and modifications, providing water quality treatment of runoff, and reducing stormwater volume and peak flow rates to the stream through modifications to runoff patterns and, where feasible and appropriate, creating detention for groundwater recharge and sedimentation reduction.

**Organization:** Rutland NRCD

**Contact Person:** Nanci McGuire

**Mailing** 170 South Main St., Ste. 4

**Address:** Rutland, VT 05701

**Phone:** 802-775-8034 ext. 117

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

**Website:** <http://www.vacd.org/rcd/>



<b>NEIWPC Code:</b>	L-2015-011
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$19,650.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$19,650.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Stormwater Solutions in Lamoille County

## Project Scope

Lamoille County Conservation District (LCCD) Stormwater Solutions in Lamoille County will raise public awareness about stormwater management practices to reduce stormwater runoff and future flooding impacts by installing three to five Green Stormwater Infrastructure (GSI) projects throughout the County.

**Project Outcome/Deliverable:** The goal of this project is to increase community involvement in the implementation of a suite of watershed restoration practices while improving water quality and reducing stormwater runoff in urban areas.

**Organization:** Lamoille County NRCD

**Contact Person:** Kim Komer

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

**Phone:** 802-888-9218 ext.113

**E-mail:** kimberly.komer@vt.nacdnet.net

**Website:** <http://www.lcnrcd.com/>



<b>NEIWPCC Code:</b>	L-2015-002
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$20,000.00
<b>Non-federal Match:</b>	\$10,000.00
<b>Total Amount:</b>	\$30,000.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Ticonderoga Green Stormwater Bumpout Program

## Project Scope

The Portage is a densely populated neighborhood, riddled with stormwater issues that have now become a major problem in the public sewer system, La Chute River, Lake Champlain, and in the Town of Ticonderoga. The town plans to build a vegetated stormwater bioretention/infiltration street bumpout to intercept stormwater on The Portage, a town road. Runoff from the adjacent lawns, road, and sidewalk will flow directly into the stormwater bumpout. The bumpout will infiltrate and treat stormwater to reduce nonpoint source phosphorus pollution. As an added bonus for the community, the bumpouts improve aesthetic quality of the roadway, reduce runoff by replacing asphalt with a pervious surface, and provide a traffic calming effect by visually narrowing the street.

**Project Outcome/Deliverable:** A vegetated stormwater street bumpout will be constructed on The Portage, a residential street in Ticonderoga. The bumpout will be located along a paved section of road between the edge of the existing travel lane and the existing curb, and will collect, treat, infiltrate, and attenuate the stormwater that flows into it.

**Organization:** Town of Ticonderoga

**Contact Person:** Anna Reynolds

**Mailing Address:** PO Box 471  
Ticonderoga, NY 12883

**Phone:** 518-873-3895

**E-mail:** areynolds@co.essex.ny.us

**Website:** <https://www.co.essex.ny.us/wp/>



<b>NEIWPC Code:</b>	L-2015-009
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$19,986.00
<b>Non-federal Match:</b>	\$20,847.00
<b>Total Amount:</b>	\$40,827.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Tower Road Culvert Removal, Mettawee River, Dorset, Vermont

## Project Scope

The Tower Road culvert drains approximately 4.11 miles of headwater stream located in the Green Mountain National Forest (GMNF) and has been classified as an aquatic organism passage (AOP) barrier, which is geomorphically incompatible, and identified as a high priority for removal. Given a healthy native brook trout population upstream of the culvert, the purpose of this implementation project is to reconnect existing fragmented native brook trout populations with their natural/historic habitat networks and functions along the river. In addition, flood resiliency should also increase, thereby reducing impacts to the native brook trout populations. The project addresses a 'Top Ten Action' as listed in the Vermont Agency of Natural Resources South Lake Champlain Tactical Basin Plan (VTANR 2014).

## Project Outcome/Deliverable:

This project will produce the following results:

- 1) provide AOP and reconnect approximately 4.11 miles of upstream habitat with potentially 16 miles of downstream habitat, thus expanding an existing healthy native brook trout fishery;
- 2) improve the geomorphic conditions of the crossing in order to reduce sediment and phosphorus inputs to the river network and ultimately, Lake Champlain;
- 3) improve the crossing's capacity to convey increased flows during flood events, thus increasing flood resiliency.

**Organization:** Trout Unlimited

**Contact Person:** Colin Lawson

**Mailing Address:** 54 Portsmouth Street  
Concord, NH 03301

**Phone:** 603-228-2200

**E-mail:** [clawson@tu.org](mailto:clawson@tu.org)

**Website:** <http://www.tu.org>



<b>NEIWPCC Code:</b>	L-2015-007
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$19,620.00
<b>Non-federal Match:</b>	\$79,000.00
<b>Total Amount:</b>	\$98,620.00

## Pollution Prevention

# 2013

## Local Implementation Grant

### Warren County Erosion and Sediment Reduction Program

#### Project Scope

The WCESRP will harvest and plant 1,500 trees and shrubs at 2-3 sites,

**Project Outcome/Deliverable:** This project will re-store 6 acres of forested buffer in the Lake Champlain Basin.

**Organization:** Warren County SWCD

**Contact Person:** Jim Lieberum

**Mailing Address:** 394 Schroom River Road  
Warrensburg, NY 12885

**Phone:** 518-623-3119

**E-mail:** jim99@nycap.rr.com

**Website:** <http://warrenswcd.org>



Hydroseeding at West Brook in Lake George Village.



<b>NEIWPC Code:</b>	L-2014-008
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	\$ 9,370.00
<b>Total Amount:</b>	\$24,370.00

Pollution  
Prevention

2014

Local Implementation  
Grant

## Warren County Habitat Improvement Program

## Project Scope

The Warren County Habitat Improvement Program will be used to enhance both riparian and aquatic wildlife habitat within the Halfway Brook and Lake George Watersheds. This grant will be used to repair and mitigate damages caused by stormwater and road maintenance practices to ponds and streams within the watershed. Habitat improvements to Halfway Brook and its tributaries, several Lake George tributaries including Northwest Bay Brook, East Brook and West Brook and watershed ponds in Hague, Bolton, Lake George, and Queensbury will be accomplished through native bank plantings, amphibian habitat structures, fish habitat and passage augmentation (brush bundles and step-pools), and migratory bird structures.

**Project Outcome/Deliverable:** This project will install stream habitat structures, osprey nesting poles, and stream bank plantings.

**Organization:** Warren County SWCD

**Contact Person:** Robert Bombard

**Mailing Address:** 394 Schroon River Road  
Warrensburg, NY12885

**Phone:** 518-623-3119

**E-mail:** rbombard123@nycap.rr.com

**Website:** <http://warrenswcd.org/>



<b>NEIWPCC Code:</b>	L-2015-005
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$12,178.00
<b>Non-federal Match:</b>	\$ 2,200.00
<b>Total Amount:</b>	\$14,378.00

Pollution  
Prevention

2013

Local Implementation  
Grant

## Watershed Stewards Rain Garden

## Project Scope

St Albans City School will design and implement a bioretention rain garden treatment area on our school campus to mitigate stormwater runoff and reduce erosion. The runoff originates at a parking lot that is heavily utilized by school buses. St. Albans City School is located within the Lake Champlain Basin. SACS is concerned with the effects of runoff on the health of the bay and the lake. As a K-8 school the project will involve student help in every phase of the process, including meeting with environmental engineers, assessing the site, designing the bioretention area, choosing the specific plants (which will be native to northwestern Vermont), planting and maintaining the garden, and communicating about the project with various stakeholders, community members, and working with the local media. Students will also help assess the site and quantity and quality of stormwater runoff before and after the implementation of the bioretention rain garden in order to quantify effects of the treatment.

**Project Outcome/Deliverable:** This project will design and implement a bio-retention rain garden and will provide an assessment of the treatment on the quantity and quality of stormwater run-off.

**Organization:** St Albans City School - SACS

**Contact Person:** Joan Cavallo

**Mailing Address:** 29 Bellows St  
St Albans, VT 05478

**Phone:** 802-527-0565

**E-mail:** cavalloj@fcsuvt.org

**Website:** sacs.fcsuvt.org/



<b>NEIWPCC Code:</b>	L-2014-011
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$13,800.00
<b>Non-federal Match:</b>	\$ 800.00
<b>Total Amount:</b>	\$14,600.00

SECTION THREE:

# GRANTS CONCLUDED

## Aquatic Invasive Species

# Aquatic Invasive Species

# 2013

# Local Implementation Grant

## AIS River Steward for the Central Champlain Region of NY

### Project Summary

In 2015, with funding from LCBP, the AsRA hired, trained and deployed an AIS River Steward on the Ausable river in NY state's central Champlain region, delivering the Clean, Drain, DRY message to river users, the general public visitors bureaus and local fly shops. Tip sheets and other educational materials were distributed broadly. Seven wader wash stations were maintained at popular sites along the river. The river steward maintained and reported new terrestrial invasive species infestations and removed them when feasible.

**Organization:** Ausable River Association

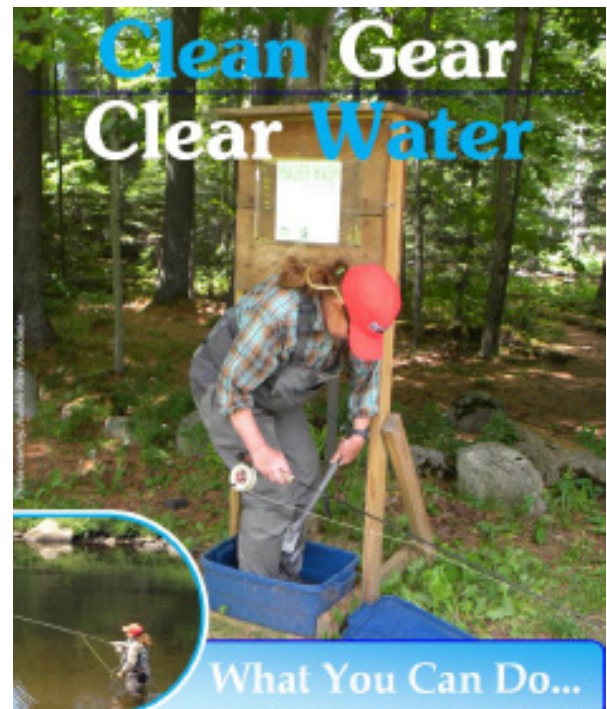
**Contact Person:** Kelley Tucker

**Mailing Address:** PO Box 8  
Wilmington, NY 12997

**Phone:** 518-637-6859

**E-mail:** [info@ausableriver.org](mailto:info@ausableriver.org)

**Website:** [www.ausableriver.org](http://www.ausableriver.org)



<b>NEIWPC Code:</b>	L-2014-021
<b>Date Complete:</b>	1/12/2015
<b>Grant Amount:</b>	\$14,957.00
<b>Non-federal Match:</b>	\$ 6,140.70
<b>Total Amount:</b>	\$19,376.00

# Aquatic Invasive Species

# 2013

# Local Implementation Grant

## AIS Spread Prevention and Early Detection through Watershed Stewardship

### Project Summary

In 2014, the AWISP posted and professionally supervised a boat launch steward at the Second Pond State Boat Launch Sites (Saranac River waterway). Theteward position produced four days of boat ramp stewardship and one day of outreach. The LCBP grant-funded stewards interacted with all visitors during their shifts and inspected boats both entering and leaving the waterways, removing plant and animal fragments. Second Pond is the gateway to the Saranac Lake Islands NYSDEC public campground and is thereby very popular with both day users and multi-night visitors from across the Northeast.

Between Memorial Day weekend (May 24th) and Labor Day (September 1st), the stewards inspected 2,604 boats for aquatic invasive species and educated 4,701 visitors about AIS ecology and spread prevention measures. The stewards intercepted and removed 106 plant and animal fragments from 89 of 2,604 total watercraft, indicating that 3.4% of boats inspected harboured some type of organism. Since multiple watercraft at times arrive in groups, a final total of 5% of all groups encountered carried organisms on one of their watercraft. Stewards discovered and removed 13 aquatic invasive species, including 10 instances of Eurasian watermilfoil (*Myriophyllum spicatum*) and 3 occurrences of variable-leaf milfoil (*Myriophyllum heterophyllum*). Boaters reported visiting 148 unique waterbodies across the United States and Canada within the previous two weeks. 67% of visitors surveyed reported taking consciously adopted measures to prevent the spread of aquatic invasive species.

**Organization:** Lower Saranac Lake Shore Owner's Association

**Contact Person:** Jack Drury

**Mailing Address:** 624 Lake Street  
Saranac Lake, NY 12983

**Phone:** 518-891-5915

**E-mail:** jack@realworldlearning.info

**Website:** n/a



Steward Jorge Velazquez at Second Pond State Boat Launch.



<b>NEIWPC Code:</b>	L-2014-047
<b>Date Complete:</b>	5/15/2015
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$15,000.00

# Aquatic Invasive Species

# 2013

## Local Implementation Grant

### AIS Spread Prevention and Early Detection through Watershed Stewardship

#### Project Summary

In 2014, the LPSOA hired the Adirondack Watershed Institute Stewardship Program (AWISP) to post and professionally supervise a boat launch steward at the Lake Placid State Boat Launch. The steward position produced four days of boat ramp stewardship and one day of education outreach time. The stewards interacted with all visitors during their shifts and inspected boats both entering and leaving the waterways, removing plant and animal fragments. Lake Placid's AAA rated waters and scenic value make the lake a popular destination for anglers and recreational boaters.

Between Memorial Day weekend (May 24th) and Labor Day (September 1st), the stewards inspected 2,533 boats for aquatic invasive species and educated 4,899 visitors about AIS ecology and spread prevention measures. The stewards intercepted and removed 68 plant and animal fragments from 53 boats via 2,006 inspections, indicating that 3% of inspections detected some type of organism. Stewards discovered and removed one aquatic invasive species, including one instance of Eurasian watermilfoil (*Myriophyllum spicatum*). Boaters reported visiting 98 unique waterbodies across the United States and Canada within the previous two weeks. About 57% of visitors surveyed reported taking consciously adopted measures to prevent the spread of aquatic invasive species.

**Organization:** Shore Owner's Association of Lake Placid

**Contact Person:** Nicole Broderick

**Mailing Address:** PO Box 1235  
Lake Placid, NY 12946

**Phone:** 518-523-1446

**E-mail:** lpsoa@northwoodschoool.com

**Website:** www.lpsoa.org



<b>NEIWPCC Code:</b>	L-2014-037
<b>Date Complete:</b>	5/27/2015
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$15,000.00

# Aquatic Invasive Species

# 2013

## Local Implementation Grant

### AIS Spread Prevention and Early Detection through Watershed Stewardship

#### Project Summary

In 2014, the AWISP posted and professionally supervised a boat launch steward at Lake Flower and Second Pond State Boat Launch Sites (Saranac River waterway). The steward position funded by the LCBP grant produced four days of boat ramp stewardship and one day of outreach. The days of boat ramp coverage were divided between the two locations, optimizing weekend coverage. The stewards interacted with all visitors during their shifts and inspected boats both entering and leaving the waterways, removing plant and animal fragments. Each of these waterways is well known and attracts visitors from across the Northeast.

Between Memorial Day weekend (May 24th) and Labor Day (September 1st), stewards inspected 2,676 boats for aquatic invasive species and educated 6,985 visitors about AIS ecology and spread prevention measures. The stewards intercepted and removed 313 plant and animal fragments from 230 watercraft, indicating that 8.6% of boats inspected harboured some type of organism. Stewards discovered and removed 27 aquatic invasive species, including 15 instances of Eurasian watermilfoil (*Myriophyllum spicatum*) and 12 occurrences of variable-leaf milfoil (*Myriophyllum heterophyllum*). Boaters reported visiting 180 unique waterbodies across the United States and Canada within the previous two weeks. About 65% of visitors surveyed reported taking consciously adopted measures to prevent the spread of aquatic invasive species.

**Organization:** Watershed Stewardship Program

**Contact Person:** Eric Holmlund

**Mailing Address:** c/o Paul Smith's College  
PO Box 265  
Paul Smiths, NY 12970

**Phone:** 518-327-6341

**E-mail:** eholmlund@paulsmiths.edu

**Website:** www.adkwatershed.org



<b>NEIWPC Code:</b>	L-2014-026
<b>Date Complete:</b>	2/13/2015
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$15,000.00

# Aquatic Invasive Species

# 2013

# Local Implementation Grant

## Aquatic Invasive Wash Station and Boater Survey Project

### Project Summary

This project had two main aspects:

- The creation and installation of a standardized Aquatic Invasive Wash Station for paddlers
- The implementation of a user survey which:
  - (1) Evaluated the effectiveness of current efforts to encourage boaters to use the Clean Drain Dry technique to prevent the spread of aquatic invasives, and
  - (2) Educated boaters about the importance of aquatic invasive spread prevention

This was a pilot project for the NFCT, and at the time it involved the only AI Wash Station of its kind specifically for paddlers. This is the ideal location for NFCT's first installation for two main reasons:

- (1)- Louie's Landing is a very active paddler site, typically the main access which paddlers use to enter the Bird's Foot Delta at the Missisquoi Wildlife Refuge
- (2)- NFCT Through Paddlers can easily stop at this location before continuing their paddle up the Missisquoi River

NFCT's primary partner for this project was the Missisquoi National Wildlife Refuge. The Refuge granted NFCT permission to install the AI Wash Station at Louie's Landing. NFCT worked directly with the Refuge staff to enhance our user survey to include feedback that would help with Refuge management.

**Organization:** Northern Forest Canoe Trail

**Contact Person:** Walter Opuszynski

**Mailing Address:** PO Box 565  
Waitsfield, VT 05673

**Phone:** 802-496-2285

**E-mail:** walter@northernforestcanoetrail.org

**Website:** www.northernforestcanoetrail.org



NFCT Interns and Waterway Work Trip participants pose near the constructed AI Wash Station at Louie's Landing on July 6th, 2014.



<b>NEIWPC Code:</b>	L-2014-033
<b>Date Complete:</b>	5/7/2015
<b>Grant Amount:</b>	\$5,965.00
<b>Non-federal Match:</b>	\$1,897.50
<b>Total Amount:</b>	\$7,786.50

# Aquatic Invasive Species

# 2013

# Local Implementation Grant

## Boat Access Greeter Program

### Project Summary

The LDFI program operated from June 23rd through Labor Day. Inspections were conducted on 943 vessels resulting in five Eurasian watermilfoil fragments and one native pondweed fragment found at the Maagoon launch. Inspections are an important part of the program, but education, both verbal and written is equally important.

Throughout the summer boats were recorded from 33 different waterbodies throughout the United States. The states included VT, NY, MA, NH, ME, NC, MN and the Atlantic Ocean. This program is extremely important to the Association, and the board is reviewing ways it can be strengthened.

The greeters estimated that over 90% of the people they spoke with knew about invasive species in the surrounding lakes and took proper preventative measures. This was a significant increase as compared to when the Association first entered the program in 2011.

**Organization:** Lake Dunmore/Fern Lake Association

**Contact Person:** Allen Wilson

**Mailing Address:** PO Box 14  
Salisbury, VT 05769

**Phone:** 802-483-2269

**E-mail:** awilsonski@yahoo.com

**Website:** www.ldfla.com



<b>NEIWPC Code:</b>	L-2014-030
<b>Date Complete:</b>	12/15/2014
<b>Grant Amount:</b>	\$12,040.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$12,040.00

Aquatic  
Invasive  
Species

2013

# Local Implementation Grant

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

### Project Summary

The Rainbow Lake Water Association hired a PSC WSP Steward for five days to work at NYSDEC Buck Pond Campground located on the Rainbow Lake waterway. The RLA provided one day of volunteer stewardship per week as match.

AIS spread prevention messages were delivered to 1,218 people in 607 boats. Aquatic organisms were found on 117 boats, including pondweed and grass, none of which are invasive. Boats came from waterbodies last visited that are known to carry AIS.

Rainbow Lake remains uninfested.

**Organization:** Rainbow Lake Association

**Contact Person:** Peter Geertz

**Mailing Address:** 125 David Drive  
Poughkeepsie, NY 12601

**Phone:** 845-635-1215

**E-mail:** pgeertz@earthlink.net

**Website:** www.rainbowlakeassn.org



<b>NEIWPC Code:</b>	L-2014-022
<b>Date Complete:</b>	3/25/2015
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	\$ 3,873.00
<b>Total Amount:</b>	\$18,873.00

# Aquatic Invasive Species

# 2013

## Local Implementation Grant

### *Lois McClure* 2014 Tour—AIS Spread Prevention Education

#### Project Summary

Over the course of four months, June-September 2014, the Lake Champlain Maritime Museum's replica canal schooner *Lois McClure* began her 11th annual outreach program with the goal of educating the public about aquatic invasive species and communicating a spread prevention message. To prepare the crew for this important and specialized aspect of environmental information delivery, LCMM began this year's outreach program with an orientation seminar provided by Lake Champlain Basin Program's Invasive Species Prevention Specialist Meg Modley. This was an illustrated and highly informative review of the most current status of the known threats to Lake Champlain and best strategies to prevent their spread to new bodies of water.

The over 10,000 visitors to the schooner were given materials on aquatic invasive species, including an invasive species flyer provided by the Lake Champlain Basin Program and information inside LCMM's "Welcome Aboard" history booklet. The schooner's crew also engaged visitors in discussions on aquatic invasive species abatement and clean boats.

LCMM created, with input from Meg Modley and Dr. Ellen Marsden, a new and specialized Invasive Species banner forming part of an outdoor exhibit leading to the schooner that was visible to the public. The cleaning of the schooner was also utilized as an educational platform. The crew of the *Lois McClure* implemented "best practices" minimizing the schooner as a vector for the migration of invasive species. While performing the inspections in Troy and Whitehall, New York, the crew spoke with neighboring boats about best practices, and performed inspections on their boats when asked.

**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Erick Tichonuck

**Mailing Address:** 4472 Basin Harbor Road., Vergennes, VT 05491

**Phone:** 802-475-2022

**E-mail:** erickt@lcmm.org

**Website:** www.lcmm.org



<b>NEIWPC Code:</b>	L-2014-028
<b>Date Complete:</b>	10/30/2014
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$15,000.00

# Aquatic Invasive Species

# 2013

# Local Implementation Grant

## The Watershed Stewardship Program on the Upper Saranac Lake to Prevent the Spread of Aquatic Invasive Species

### Project Summary

The 2014 field season ran from Memorial Day weekend (May 24th) to Labor Day (September 1st), with additional weekend coverage extending to early September. LCBP-funded stewards were stationed at Back Bay on USL and Fish Creek Campground inspected 1,119 watercraft for invasive species, while educating 2,744 visitors about the ecology of AIS, spread prevention techniques and the potential ramifications for the inadvertent transport of organisms. Stewards observed and removed 82 organisms from 58 boats, indicating that 13.6% of all watercraft inspected harboured at least one organism.

Stewards detected and removed 8 instances of confirmed AIS, including Eurasian watermilfoil (3) and variable-leaf milfoil (5). Overall, 75% of visitors reported taking one or more measures to prevent the spread of AIS prior to arriving at the boat launch.

Visitors cited a total of 68 different waterbodies as previously visited, indicating that lakes in the Adirondack region are facing AIS propagule pressure from a highly diverse array of inputs (spread vectors).

**Organization:** Upper Saranac Lake Association

**Contact Person:** Jonathan Landsberg

**Mailing Address:** PO Box 872  
Saranac Lake, NY 12983

**Phone:** 518-891-6883

**E-mail:** jon.landsberg@gmail.com

**Website:** www.uppersaranac.com



Lake Steward Sue O'Reilly inspects a boat at the Back Bay Boat Launch on USL



<b>NEIWPCC Code:</b>	L-2014-023
<b>Date Complete:</b>	3/4/2015
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$15,000.00

# Champlain Valley National Heritage Partnership

# 2013

# Local Commemoration Grant

## A Fire Never Extinguished: How the Civil War Continues to Shape Civic and Cultural Life in America

### Project Summary

The Civil War casts a long shadow in the United States. As Robert Penn Warren put it in his classic 1961 book, *The Legacy of the Civil War*, “many clear and objective facts about America are best understood in reference to the Civil War.” The November 14-15, 2014 (out of the reporting period of this report) conference, “*A Fire Never Extinguished: How the Civil War Continues to Shape Civic and Cultural Life in America*,” held at the University of Vermont campus explored the influence that the War had and continues to have on literature, visual art, race, memory, and politics. The conference, taking place five months before the end of the sesquicentennial of the Civil War, identified lessons vital to American democracy that still can be learned from the war and its aftermath. The conference was filmed and documentary videos of the conference summary and highlights of keynote speakers were developed and distributed via web and DVDs by CVNHP, VHC, NPS and other conference partners. The CVNHP approved a final report for this contract during this reporting period.

The CVNHP provided \$18,222 to support an American Civil War Conference sponsored by the Vermont Civil War 150th Anniversary Commission and the Vermont Humanities Council (VHC). The CVNHP received \$15,000 in special NPS project funding. After administration costs, \$13,333—along with \$4,889 from the FY2014 CVNHP budget—of these funds were allocated to the conference and the subsequent documentary.

**Organization:** Vermont Humanities Council

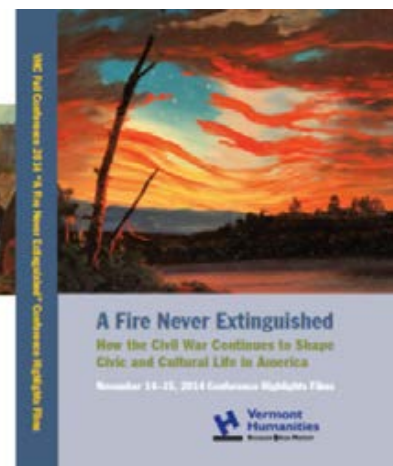
**Contact Person:** Amy Cunningham

**Mailing Address:** 11 Loomis Street  
Montpelier, VT 05602

**Phone:** 802 262 1356

**E-mail:** [acunningham@vermonthumanities.org](mailto:acunningham@vermonthumanities.org)

**Website:** <http://www.vermonthumanities.org/programs/public-programs/annual-fall-conference/fallconf14films/>



The back and front cover of the DVD case featuring the proceedings of the Vermont Civil War Sesquicentennial Commission and the Vermont Humanities Council held in November 2014.



<b>NEIWPCC Code:</b>	LS-2014-067
<b>Date Complete:</b>	7/17/2015
<b>Grant Amount:</b>	\$18,222.00
<b>Non-federal Match:</b>	\$11,661.00
<b>Total Amount:</b>	\$29,883.00

Champlain Valley  
National Heritage  
Partnership

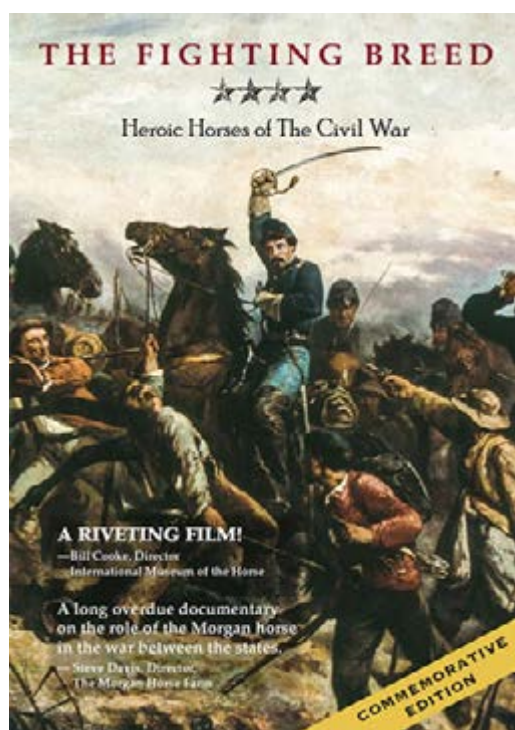
2013

# Local Commemoration Grant

## “A Horse for a New Century”

### Project Summary

The Bronx Historical Society received a CVNHP 2014 Commemoration Grant to develop a 23-minute documentary film, “The Fighting Breed” on the exploits of the First Vermont Cavalry and its use of the Morgan Horse during the Civil War. The documentary which included interviews with historians Joseph Collea, Steven Sodegren and Howard Coffin, highlighted the Vermont cavalry’s role in the battles at Gettysburg and Cedar Creek.



**Organization:** Bronx County Historical Society

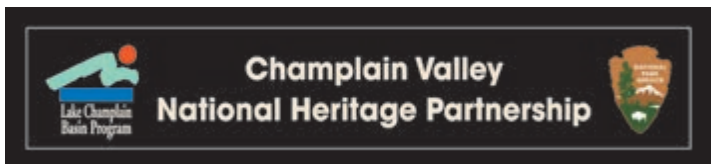
**Contact Person:** Douglas Lazarus

**Mailing Address:** 3309 Bainbridge Ave.  
The Bronx, NY 10467

**Phone:** 718-881-8900

**E-mail:** administration@bronxhistoricalsociety.org

**Website:** www.bronxhistoricalsociety.org



<b>NEIWPCC Code:</b>	L-2014-039
<b>Date Complete:</b>	3/17/2015
<b>Grant Amount:</b>	\$4,600.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,600.00

# Champlain Valley National Heritage Partnership

# 2013

# Local Commemoration Grant

## Battle of Plattsburgh Commemoration Re-enactor Encampment and Battle Re-enactment

### Project Summary

The CVNHP awarded a 2014 Commemoration Grant to the Battle of Plattsburgh Association in support of the bicentennial commemoration of the pivotal land and water battle. Approximately 250 re-enactors participated in the three re-enactments of two land skirmishes and the fierce naval battle on Cumberland Bay. The Association estimates that more than 2,500 people attended these events and visited the re-enactors encampment at the Kent-Delord House in Plattsburgh.

**Organization:** Battle of Plattsburgh Association

**Contact Person:** Kit Booth

**Mailing Address:** 21 Old Dock Road  
Plattsburgh, NY 12901

**Phone:** 518-563-4375

**E-mail:** kitbooth@charter.net

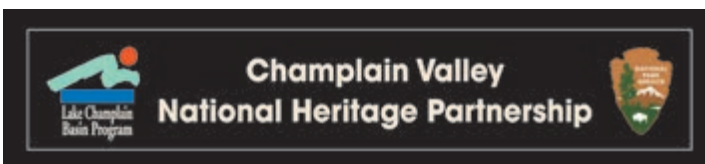
**Website:** [www.battleofplattsburgh.org](http://www.battleofplattsburgh.org)



The Battle of Plattsburgh Bay re-enacted 200 years later.



Re-enactors from the U.S. and Canada participated.



<b>NEIWPCC Code</b>	L-2014-061
<b>Date Complete:</b>	12/12/2014
<b>Grant Amount:</b>	\$ 5,000.00
<b>Non-federal Match:</b>	\$18,432.00
<b>Total Amount:</b>	\$23,432.00

Champlain Valley  
National Heritage  
Partnership

2013

# Local Commemoration Grant

## Clinton County Civil War Record, 1861-1865 (Digital Exhibit)

### Project Summary

The CCHA created a digital exhibit that highlights the impact of the Civil War on Clinton County, New York. Resources from the CCHA's collections (photographs, letters, swords, uniforms etc.) were digitized and utilized for the exhibit. The digital exhibit is available to Museum visitors and accessed on site with a touch-screen display and online for researchers worldwide. The engaging, interactive exhibit allows users to access the large number of collections the CCHA houses that would otherwise be inaccessible to the public (without arranging a private viewing).

The CCHA Civil War Committee spent roughly 1,500 hours compiling data from the county's town clerk records, the Civil War Adjutant General's List, Clinton County newspapers, Hurd's History of Clinton and Franklin Counties, and information submitted by the public to develop a comprehensive list of Civil War soldiers in Clinton County. The final version of the research was published in a two-volume, 500+ page set. The book is organized by towns and regiments, with soldier names listed in alphabetical order. The book also includes a 34-page index and burial locations in Clinton County for over 1,200 Civil War soldiers. Over 5,200 Civil War veterans who were either buried or enlisted in Clinton County were included in the final publication: "Clinton County Civil War Record: 1861-1865."

**Organization:** Clinton County Historical Association

**Contact Person:** Melissa Peck

**Mailing Address:** 98 Ohio Drive  
Plattsburgh, NY 12910

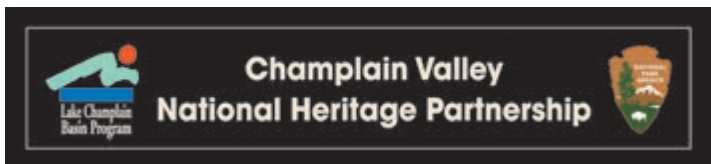
**Phone:** 518-561-0340

**E-mail:** [director@clintoncountyhistorical.org](mailto:director@clintoncountyhistorical.org)

**Website:** [www.clintoncountyhistorical.org/#!menu-civil-war/cfup](http://www.clintoncountyhistorical.org/#!menu-civil-war/cfup)



CCHA Civil War Committee Chair Geri Favreau and Town of Saranac Historian Jan Couture with copies of the 500-page "Clinton County Civil War Record: 1861-1865."



<b>NEIWPC Code:</b>	L-2014-025
<b>Date Complete:</b>	6/4/2015
<b>Grant Amount:</b>	\$5,000.00
<b>Non-federal Match:</b>	\$4,253.00
<b>Total Amount:</b>	\$9,253.00

# Champlain Valley National Heritage Partnership

# 2013

# Local Commemoration Grant

## Fourth of July Civil War and War of 1812 Commemoration

### Project Summary

Utilizing a 2014 CVNHP Commemoration Grant, the Town of Manchester, Vermont captured and told the fascinating story of The Equinox Guards, the Civil War Company from Manchester, Vermont and the surrounding story. The story features Cyrus Hard, an idealistic young farmer from Manchester, who ultimately dies in a Union Army Hospital, and the Cummings Family, who lost seven members in the Battle of Savage Station.

The Town of Manchester produced two high quality, professional presentations: an audio production and a corresponding video production. The audio presentation was aired at the annual fireworks celebration on July 4, 2014 to a large crowd (1000s of people). The video production was presented to the Manchester Selectboard at its meeting on June 30, 2015, filed with the Town Clerk, and posted online.

**Organization:** Town of Manchester

**Contact Person:** John O'Keefe

**Mailing Address:** 6039 Main Street  
Manchester Center, VT 05255

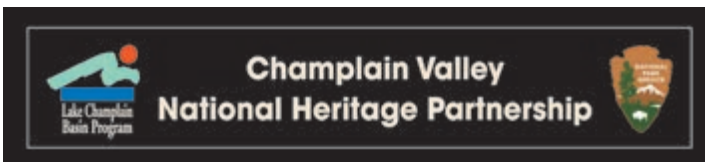
**Phone:** 802-362-1313

**E-mail:** j.okeefe@manchester-vt.gov

**Website:** manchester-vt.gov



The complete video is available online at: <https://www.youtube.com/watch?v=AB8yuf8flxw>



<b>NEIWPCC Code:</b>	L-2014-064
<b>Date Complete:</b>	7/14/2015
<b>Grant Amount:</b>	\$2,500.00
<b>Non-federal Match:</b>	\$4,967.56
<b>Total Amount:</b>	\$7,467.56

# Champlain Valley National Heritage Partnership 2013

## Local Heritage Grant

### History Comes Alive! Youth Engagement in Local History through the Arts

#### Project Summary

The Flynn Center for the Performing Arts received a 2014 Local Heritage Grant to expand its History Comes Alive! program to Addison and Grand Isle Counties as part of its Rural Arts Literacy Initiative. For more than ten years, the Flynn Center has interwoven youth engagement, the study of local history and heritage and creative, dramatic self-expression through the History Comes Alive! program. In partnership with the Shelburne Museum, the Ethan Allen Homestead, Shelburne Farms and the Rokeby Museum, the Flynn Center has offered a summer program in which youth spend a week learning about and dramatizing the lives of people from a particular era of time in Vermont. Through improvisation, students develop real and fictional costumed characters who respond to the challenges of the time, a process that augments understanding of and passion for history. The Flynn Center worked to have the students create a finished product that documents some aspect of local history that could be used in classrooms throughout the region to help teach that moment in history and perhaps light a spark for other youth to become actively engaged in the retelling of historical eras through theater or dance.

**Organization:** Flynn Center

**Contact Person:** Stacy Raphael

**Mailing Address:** 153 Main Street  
Burlington, VT 05401

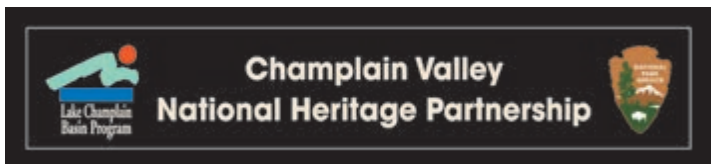
**Phone:** 802-652-4500

**E-mail:** [sraphael@flynncenter.org](mailto:sraphael@flynncenter.org)

**Website:** [www.flynncenter.org/](http://www.flynncenter.org/)



Students learned about the history of Lake Champlain through the theater.



<b>NEIWPCC Code:</b>	L-2014-066
<b>Date Complete:</b>	6/30/2015
<b>Grant Amount:</b>	\$5,000.00
<b>Non-federal Match:</b>	\$4,278.81
<b>Total Amount:</b>	\$9,278.81

# Champlain Valley National Heritage Partnership 2013

## Local Heritage Grant

### Investing in the Future by Studying the Past

#### Project Summary

The Ethan Allen Homestead Museum developed educational programming which incorporated new scholarship and educational standards. The program helped interpreters develop presentations, while engaging young adults in research. Portable demonstration kits were developed and are now available for school use.

The museum hired three college interns to develop lesson plans and demonstrations for the public. Under supervision, the interns developed activities that are compatible with Common Core. During May-October 2014, the interns spent at least three hours per week helping with general operations and new implementing programs.

Each Lesson Plan covered both history and another subject pertinent to the Champlain Valley and examined an aspect of Champlain Valley life during the 18th Century. These activities are now offered through the museum's regular educational programming.

**Organization:** Ethan Allen Homestead Museum

**Contact Person:** Daniel O'Neil

**Mailing Address:** Ethan Allen Homestead  
Burlington, VT 05408

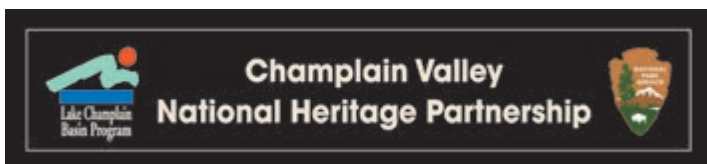
**Phone:** 802-865-4556

**E-mail:** [info@ethanallenhomestead.org](mailto:info@ethanallenhomestead.org)

**Website:** [www.ethanallenhomestead.org](http://www.ethanallenhomestead.org)



Interns developed new curricula and interpretive programs that included colonial botany, French settlement of the Champlain Valley and colonial play.



<b>NEIWPCC Code:</b>	L-2014-050
<b>Date Complete:</b>	12/15/2014
<b>Grant Amount:</b>	\$2,000.00
<b>Non-federal Match:</b>	\$2,000.00
<b>Total Amount:</b>	\$4,000.00

Champlain Valley  
National Heritage  
Partnership

2013

# Local Commemoration Grant

## John Smith Legacy Project

### Project Summary

The Friends of Northern Lake Champlain utilized a 2014 CVNHP Commemoration Grant to design, create, produce, and install three interpretive wayside exhibits at locations associated with Vermont Governor John Smith who was in office during the American Civil War. The Friends of Northern Lake Champlain also produced a rack card for the 150th anniversary commemoration of the St. Albans Raid Event, which took place in September 2014.

**Organization:** Friends of Northern Lake Champlain

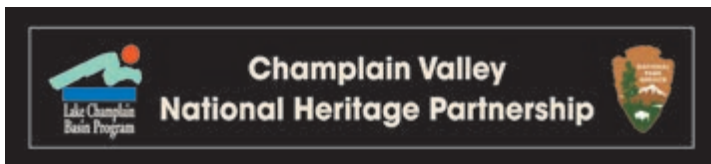
**Contact Person:** Denise Smith

**Mailing Address:** PO Box 58  
Swanton, VT 05488

**Phone:** 802-355-0694

**E-mail:** denisefnlc@gmail.com

**Website:** [www.northernlakechamplain.org](http://www.northernlakechamplain.org)



<b>NEIWPCC Code:</b>	L-2014-020
<b>Date Complete:</b>	8/31/2015
<b>Grant Amount:</b>	\$5,000.00
<b>Non-federal Match:</b>	\$2,750.00
<b>Total Amount:</b>	\$6,000.00

# Champlain Valley National Heritage Partnership

# 2013

# Local Heritage Grant

## Manchester Heritage Project

### Project Summary

Students from Burr and Burton Academy in Manchester connected with the region's history through a CVNHP Local Heritage Grant. Students interviewed and filmed residents—including a 104-year-old former Burr and Burton student, a local poet, a veteran of the German Army who fought in World War II, and various tradespeople from the greater Manchester region including the towns of Dorset, Pawlet, Rupert, Londonderry, and Peru. The interviews were edited using professional services and are available for viewing on the *Voices of Vermont* website.

**Organization:** Burr and Burton Academy

**Contact Person:** Cheryl Young

**Mailing Address:** P.O. Box 498  
Manchester, VT 05254

**Phone:** 802-867-5921

**E-mail:** cy5545@gmail.com

**Website:** <http://voicesofvermont.net/>



Students from Burr and Burton Academy interviewed local farmers, artisans, business people, and residents of Bennington County that have lived interesting lives.



<b>NEIWPCC Code:</b>	L-2014-007
<b>Date Complete:</b>	7/7/2014
<b>Grant Amount:</b>	\$ 5,000.00
<b>Non-federal Match:</b>	\$24,412.84
<b>Total Amount:</b>	\$29,412.84

Champlain Valley  
National Heritage  
Partnership

2013

## Local Heritage Grant

### Nulhegan Youth Drummers/Dancers

#### Project Summary

Through a CVNHP Local Heritage Grant, Native American students learned about their Abenaki culture. The preconceived notions of Native Abenakis were replaced with the facts that Native Abenaki are here today and living with everyone else in society. The students learned Abenaki songs handed down through the generations. One of the highlights of the grant activities was meeting for an educational day with the Swanton Missisquoi Tribal youth group: The Circle of Courage. The children learned many dances which are still performed today and sang new Native songs. The students performed for several venues: with the Circle of Courage, Shelburne Farms, the radio program Moccasin Tracks, Holland Elementary School, Carolyn's Red Balloon Enrichment Center, Derby Line Days and various other programs. The students involved designed their regalia and took great pride in the project. The purchase of a ceremonial drum was a key investment for the children as they performed sacred rites to "open" and "close" activities using the instrument.

**Organization:** Abenakis Helping Abenakis

**Contact Person:** Lucy Cannon

**Mailing Address:** 308 Union St, Suite 1  
Newport, VT 05855

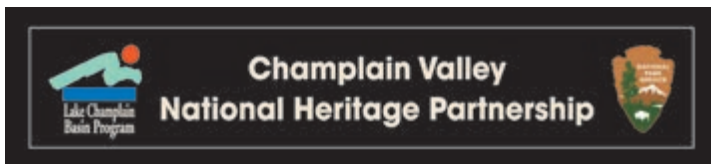
**Phone:** 802-487-9340

**E-mail:** beehive1\_2000@yahoo.com

**Website:**



The purchase of a ceremonial drum was integral to the success of the project.



<b>NEIWPCC Code:</b>	L-2014-054
<b>Date Complete:</b>	4/14/2015
<b>Grant Amount:</b>	\$2,500.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$2,500.00

# Champlain Valley National Heritage Partnership

# 2014

# Water Trail Grant

## On-Water Mapping of Otter Creek

### Project Summary

LCMM took youth groups in boats on Otter Creek to map a water trail. Participants mapped points of interest, including nesting areas, historical sites, archaeological sites, and areas affected by invasive plant and aquatic life. The On-Water Mapping of Otter Creek program provided participants a personal connection to a local waterway and its history. By encouraging recreation and exploration in low-impact, human powered vessels, we hope to instill a life-long love of our rivers and lakes and all life they support, and a greater understanding of Lake Champlain's tributaries and resources.

The participants work was used to create a non-motorized water trail guide for kids that is offered on-line on the LCMM and partner websites.

**Organization:** Lake Champlain Maritime Museum at Basin Harbor, Inc.

**Contact Person:** Sarah Judd

**Mailing Address:** 4472 Basin Harbor Rd.  
Vergennes, Vermont 05491

**Phone:** 802-475-2022

**E-mail:** sarahj@lcmm.org

**Website:** <http://www.lcmm.org/>



<b>NEIWPCC Code:</b>	L-2015-056
<b>Date Complete:</b>	
<b>Grant Amount:</b>	\$ 7,000.00
<b>Non-federal Match:</b>	\$ 3,400.00
<b>Total Amount:</b>	\$10,400.00

# Champlain Valley National Heritage Partnership

# 2014

## Local Heritage Grant

### Otter Creek Odyssey

#### Project Summary

The Lake Champlain Maritime Museum (LCMM) implemented a new educational field program designed to introduce local school children to the history, archaeology and ecology of the Champlain Basin via a day-long rowing excursion down Otter Creek. The program took place on September 16-17, 2014. During the day, participants rowed to stops along Otter Creek. The LCMM and Vermont Institute for Natural Resources interacted with students at stations along the route interpreting the ecology, biodiversity, pre-history and history of the Otter Creek watershed. Participants covered human and natural history, archaeology, technology, ecology, impacts of pollution, farm and urban runoff, and the threat posed by invasive species.

The day on the Creek was made possible by the use of LCMM's longboats; six oared rowing gigs, allowing students to gain valuable teamwork skills. Each boat was lead by a trained coxswain who taught the basics of team rowing, and provided the leadership for each teams. Rowing a gig was the perfect venue for teaching team-building while getting physical exercise outdoors.

This on-water program provided a personal connection to the waterways and history in participants' own backyard. The 127 school children that participated viewed the waterway and its inhabitants from water level, at a slower pace than we normally do in today's society, enabling them to have an in-depth personal

**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Erick Tichonuk

**Mailing Address:** 4472 Basin Harbor Road  
Vergennes, VT 05490

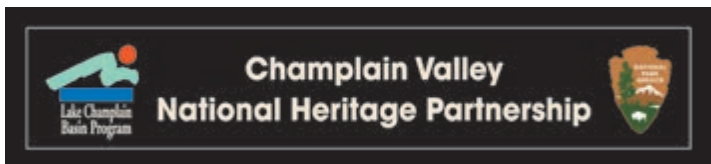
**Phone:** 802-475-2022

**E-mail:** [erickt@lcmm.org](mailto:erickt@lcmm.org)

**Website:** [www.lcmm.org](http://www.lcmm.org)



experience in the natural world. By encouraging recreation and exploration in low-impact, human-powered vessels, it was LCMM's objective to instill a life-long love and appreciation of our waterways, their ecology and historical significance. In so doing LCMM hopes to create a generation of environmental stewards.



<b>NEIWPCC Code:</b>	L-2014-041
<b>Date Complete:</b>	10/31/2014
<b>Grant Amount:</b>	\$5,000.00
<b>Non-federal Match:</b>	\$3,572.00
<b>Total Amount:</b>	\$8,572.00

# Champlain Valley National Heritage Partnership

# 2013

## Local Heritage Grant

### Pathways: Past and Present

### Project Summary

Inspired by the history and architecture of Burlington's Moran Plant, Vermont artist Catherine Siller organized school residencies with Vermont High School students at CVU and Burlington High Schools. Siller implemented in-classroom demos integrating technology, art, movement, and the history of the Moran Plan.

Built in 1953 and once known for its architecture and its technical innovation, the Burlington's Moran Municipal Power Plant now stands abandoned, an eyesore in Burlington's otherwise vibrant, waterfront community. Pathways became an appropriate title for the project based on this melding of history, power and creativity. Eleven students participated in extra-curricular workshops at the BCA Center, developing their own artwork in response to Moran and waterfront history.

Student work was translated into digital projections that were incorporated into a 3-hour movement and interactive technology-based performance with six visiting artists at the Moran Plant site on May 31, 2014. The performance was attended by an estimated 150-200 people, including parents and teachers of students and many community members interested in the future of the plant. The project was and documented on video and in photographs, and Siller compiled the curriculum that she used into a guide that was distributed to the participating schools and that could be used with other students in the future. It also provides details of the work completed in the school and in the

**Organization:** Burlington City Arts

**Contact Person:** Sara Katz

**Mailing Address:** 135 Church St.  
Burlington, VT

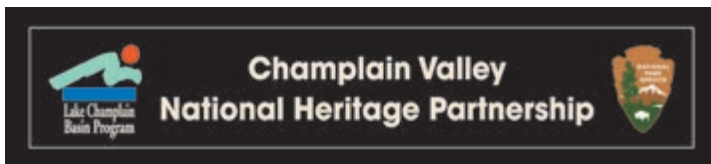
**Phone:** 802-865-5356

**E-mail:** skatz@burlingtoncityarts.org

**Website:** <http://vimeo.com/100219826>



workshops. The performance was covered by WCAX on May 29 and in a brief article in the Burlington Free Press. A 30-minute video of the performance is available online - see above.



<b>NEIWPCC Code:</b>	L-2014-040
<b>Date Complete:</b>	10/21/2014
<b>Grant Amount:</b>	\$ 4,990.00
<b>Non-federal Match:</b>	\$12,315.00
<b>Total Amount:</b>	\$17,305.00

Champlain Valley  
National Heritage  
Partnership

2013

Local Commemoration  
Grant

## Rabble in Arms: The Attack of Fort Cassin

## Project Summary

The Lake Champlain Maritime Museum (LCMM) received a 2014 CVNHP Commemoration Grant to mark the 200th anniversary of a British raid on Lake Champlain during the War of 1812. On the weekend of August 16 and 17, 2014, the LCMM recreated the events of 1814, when the British fleet sailed down Lake Champlain with the intent to destroy Lieut. Thomas Macdonough's ship building operation in Vergennes. Re-enactors from across the northeast gathered at LCMM's North Harbor to recreate and interpret these events for the visiting public. Forty re-enactors, artillery units and reproduction vessels brought the pivotal events of the War of 1812 to life as they commemorated the 200th Anniversary of this important military engagement. Museum visitors enjoyed demonstrations of maritime skills, presentations of firearms, boat maneuvers, open air cooking, blacksmithing, and lectures about Vergennes' role in the War of 1812. In addition, the LCMM's gallery featured the exhibit *1812 - Star Spangled Nation*, on loan from the American Society of Marine Artists.



**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Erick Tichonuk

**Mailing Address:** 4472 Basin Harbor Road  
Vergennes, VT 05491

**Phone:** 802-475-2022

**E-mail:** erickt@lcmm.org

**Website:** [www.lcmm.org/shipwrecks\\_history/history/history\\_war1812.htm](http://www.lcmm.org/shipwrecks_history/history/history_war1812.htm)



Dozens of re-enactors and hundreds of spectators took part in the weekend's commemoration.



Champlain Valley  
National Heritage Partnership



<b>NEIWPCC Code:</b>	L-2014-029
<b>Date Complete:</b>	10/21/2014
<b>Grant Amount:</b>	\$5,000.00
<b>Non-federal Match:</b>	\$2,750.00
<b>Total Amount:</b>	\$7,750.00

# Champlain Valley National Heritage Partnership 2013

## Local Heritage Grant

### St. Albans Raid 150th Anniversary Walking Tour App

#### Project Summary

Funded through a CVNHP Local Heritage Grant the St. Albans Historical Society & Museum worked with the Bellows Free Academy High School to develop a digital St. Albans Raid 150th Anniversary Walking Tour in 2015. This process allowed the Museum to virtually curate previously unavailable resources, provided opportunities to assess and improve their collections management procedures, and created new content and capacity for an informative and interactive walking tour. It also contributed to preservation of the story of the St. Albans Raid, a critical moment in the Civil War that impacted our community—and its historical legacy—for generations.

**Organization:** St Albans Historical Society and Museum

**Contact Person:** Alex Lehning

**Mailing Address:** PO Box 722  
St Albans, VT 05478

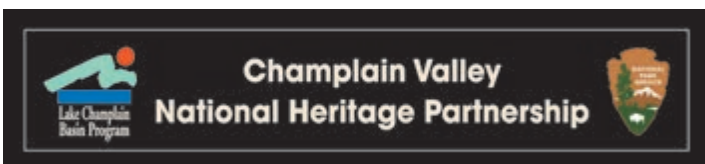
**Phone:** 802-527-7933

**E-mail:** [director@stamuseum.org](mailto:director@stamuseum.org)

**Website:** [www.stamuseum.org](http://www.stamuseum.org)



Press to start the tour



<b>NEIWPCC Code:</b>	L-2014-055
<b>Date Complete:</b>	7/14/2015
<b>Grant Amount:</b>	\$2,500.00
<b>Non-federal Match:</b>	\$3,233.00
<b>Total Amount:</b>	\$5,733.00

# Champlain Valley National Heritage Partnership

# 2014

## Key Partner Grant

### Summary Report on the Lake Champlain Quadricentennial Commemoration

#### Project Scope

The 400th anniversary of the French explorer Samuel de Champlain's 1609 expedition to the region was the stimulus for the research, interpretation and celebration of the Champlain Valley's rich history, diverse cultures, and beautiful natural resources. The LCBP/CVNHP provided planning, coordination, and funding assistance for the Quadricentennial in Vermont and New York. The planning process for the anniversary, which began in 2003, fostered a wide array of projects, programs and events throughout the Champlain Valley and in Quebec. In 2012, a researcher/writer interviewed dozens of key participants in the planning and implementation of these elements.

The 100+ page document developed through these interviews was the foundation for an official report on the Quadricentennial. This report, which includes the time period roughly from 2003-2010, is intended to reach principally two audiences:

1. Future historians and researchers who wish to understand the perspective early 21st-century Quebecers, New Yorkers and Vermonters had leading up to and during the Quadricentennial
2. Current-day enthusiasts and professionals who want to gain further perspective on the relevance and effectiveness of the commemoration in which they took part.

The LCMM edited and designed the Summary Report which will be available upon request.

**Organization:** Lake Champlain Maritime Museum

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**Phone:** 802-475-2022

**E-mail:** saraht@lcmm.org

**Website:** <http://www.lcmm.org/>



<b>NEIWPC Code:</b>	L-2015-051
<b>Date Complete:</b>	9/1/2015
<b>Grant Amount:</b>	\$11,933.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$11,933.00

# Champlain Valley National Heritage Partnership

# 2013

## Local Heritage Grant

### The History of the Plattsburgh Barracks (Digital Exhibit)

#### Project Summary

The Clinton County Historical Association (CCHA) received a CVNHP Local Heritage Grant for a two-part project in March 2014. The project was based at the Clinton County Historical Association (CCHA) and Museum located in Plattsburgh, NY. A partnership among CCHA staff, a student intern and docents created a digital exhibit highlighting the military history of the Plattsburgh Barracks, also known as the "Old Base" or the "Oval." A group of 15 Junior Docents were responsible for completing an historic building research project for each of the 15 buildings highlighted in The History of the Plattsburgh Barracks Digital Exhibit. Their research was used to complete an historic buildings section in the exhibit and was used in the Plattsburgh Barracks Walking Tour, being the second half of the two-part project.

**Organization:** Clinton County Historical Association

**Contact Person:** Melissa Peck

**Mailing Address:** 98 Ohio Ave  
Plattsburgh, NY 12910

**Phone:** 518-561-0340

**E-mail:** [director@clintoncountymuseum.org](mailto:director@clintoncountymuseum.org)

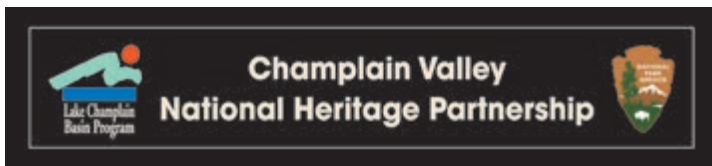
**Website:** [www.clintoncountymuseum.org/#!menu-history-of-plattsburgh-barracks/ca49](http://www.clintoncountymuseum.org/#!menu-history-of-plattsburgh-barracks/ca49)



screen shot of the exhibit



The project included a hand-held map and a digital exhibit at the CCHA Museum and online.



<b>NEIWPCC Code:</b>	L-2014-024
<b>Date Complete:</b>	5/15/2015
<b>Grant Amount:</b>	\$2,500.00
<b>Non-federal Match:</b>	\$5,303.00
<b>Total Amount:</b>	\$7,803.00

# Champlain Valley National Heritage Partnership

# 2013

## Local Heritage Grant

### Trapping Boats of Lake Champlain: A Comparative Study and Survey of Cultural Artifacts in Addison County, VT and Essex County, NY

#### Project Summary

The Henry Sheldon Museum of Middlebury, Vermont received a 2014 CVNHP Local Heritage Grant to document and build traditional Lake Champlain trapping boats. Until the 1980's, trapping was an important economic activity throughout the Champlain Valley. Boats were integral to this activity and research to date has shown that many, if not most, of these boats were built by the trappers themselves. The result was the development of a boat type specific to trapping and the local waters, designed, refined and built by amateur craftsmen. This project engages students in documenting two types of these boats—in Vermont and New York—through first-person interviews, research, and the replication of historic trapping boats, all in an effort to expose the students to the interplay of environment, economics, and craft that characterize the culture of Lake Champlain.

**Organization:** The Henry Sheldon Museum

**Contact Person:** Douglas Brooks

**Mailing Address:** 1 Park St  
Middlebury, VT 05753

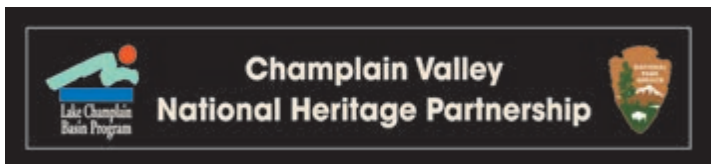
**Phone:** 802-877-3289

**E-mail:** douglasbrooksboatbuilding@gmail.com

**Website:** www.henrysheldonmuseum.org



Two traditional trapping boats— from Vermont and New York—were researched and recreated for the project by students at the Hannaford Career Center in Middlebury.



<b>NEIWPCC Code:</b>	L-2014-071
<b>Date Complete:</b>	3/11/2015
<b>Grant Amount:</b>	\$ 4,900.00
<b>Non-federal Match:</b>	\$ 6,200.00
<b>Total Amount:</b>	\$11,100.00

# Champlain Valley National Heritage Partnership

# 2014

# Key Partner Grant

## Underwater Historic Preserve Expansion Archaeological Survey

### Project Summary

All underwater historic sites in Lake Champlain belong in public trust to the people of the respective states in whose water they lie. The State of Vermont has established the Vermont Underwater Historic Preserve to provide public access for divers to some of the Lake's historic shipwrecks. The system is designed to protect these irreplaceable historic resources both from anchor damage and artifact collecting while allowing reasonable access to appropriate sites. Currently the Vermont preserve system contains eight wrecks spread along the length of Lake Champlain with the most recent vessel added to the system in 2003. Recent developments in the local dive community have made it apparent that there is a desire for additional sites for interested divers to explore and examine.

The Underwater Historic Preserve Expansion Archaeological Survey is an effort to identify, document and prepare a new site for addition to the preserve system. This project has selected the site of the *US La Vallee* for evaluation on the basis of diver safety and archaeological sensitivity to determine if it will be recommended for inclusion in the Underwater Historic Preserve System (UHP). The assessment of *US La Vallee* involved direct diver measurement, videography, and artifact survey as well as gaining a thorough understanding of site specific dive safety concerns.

**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Christopher Sabick

**Mailing Address:** 4472 Basin Harbor Rd.  
Vergennes, Vermont 05491

**Phone:** 802-475-2022

**E-mail:** chriss@lcmm.org

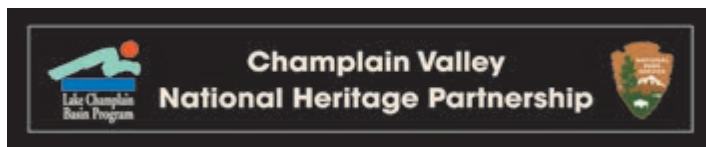
**Website:** <http://www.lcmm.org/>



Infrastructure for this assessment was established on August 20, 2015, in the form of a temporary mooring system and travel line. A total of 13 dives were carried out on the site during which care analysis of dive safety

considerations were made. Additionally, archaeological divers identified and secured the small artifact collection that was found on the wreck site.

The CVNHP-funded project report provided preliminary findings and a recommendation about the site's suitability for inclusion in the Underwater Historic Preserve System.



<b>NEIWPCC Code:</b>	L-2015-028
<b>Date Complete:</b>	9/1/2015
<b>Grant Amount:</b>	\$10,000.00
<b>Non-federal Match:</b>	\$ 2,000.00
<b>Total Amount:</b>	\$12,000.00

Champlain Valley  
National Heritage  
Partnership

2014

# Local Water Trail Grant

## Up the Creek — On-Water Mapping of Otter Creek

### Project Summary

By participating in this program, the participants enjoyed a two-day recreational experience that provided windows into local history and the early summer activity of wildlife. They expressed pride in the accomplishment of rowing the distance they had come and were eager to help pull the boats and trailer them to storage. All students stated that they had expanded their understanding of the river as a corridor to the Lake. Other conversations reinforced themes of sustainability, the advancement of technology and the diverse applications of mapping expertise.

In addition, this project served as a valuable opportunity for new staff to learn the Otter Creek route, build relationships, design a new educational program that connects youth with the natural environment and local history, and work in the longboats built at the Museum.

The map made by this group is viewable by the public on our website and could be added to by other individuals, families or groups who visit Otter Creek. The project served as a pilot for new on-water navigation programs that are in development. LCMM anticipates the project's impact reaching into the future by applying the project to other Lake Champlain tributaries.

**Organization:** Lake Champlain Maritime Museum

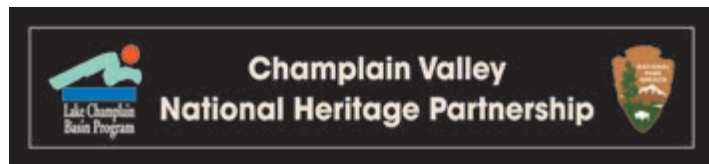
**Contact Person:** Erick Tichonuk

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

**Phone:** 802-475-2022

**E-mail:** [erickt@lcmm.org](mailto:erickt@lcmm.org)

**Website:** <http://www.lcmm.org/education/resource/otter-creek-map.html>



<b>NEIWPCC Code:</b>	L-2015-056
<b>Date Complete:</b>	10/30/2014
<b>Grant Amount:</b>	\$ 7,000.00
<b>Non-federal Match:</b>	\$ 3,400.00
<b>Total Amount:</b>	\$10,400.00

# Champlain Valley National Heritage Partnership

# 2013

# Local Commemoration Grant

## War of 1812 - The Champlain Valley and the Conflict that Redefined North America

### Project Summary

The Whallonsburg Civic Association sponsored a War of 1812 history weekend (September 19-20, 2014) by hosting a Pulitzer-winning lecturer, Alan Taylor. His lecture was followed the next day with a roundtable discussion and walking tour with local historians of the area. Approximately 75 people attended the two events. The event was a wonderful collaboration among local historians, community organizations, and institutions of higher education.

**Organization:** Whallonsburg Civic Association

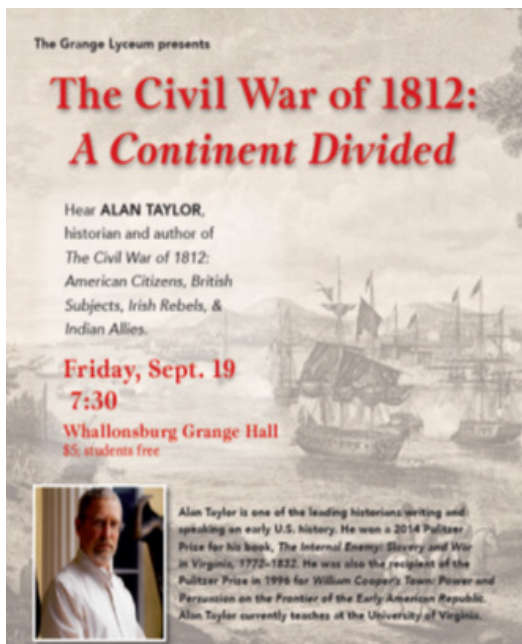
**Contact Person:** Andrew Buchanan

**Mailing Address:** P.O. Box 274  
Essex, NY 12936

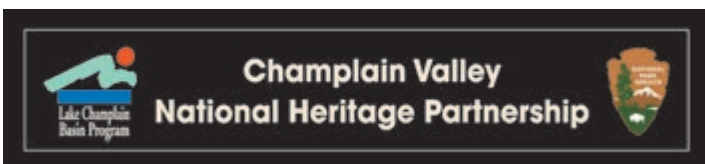
**Phone:** 518-570-2381

**E-mail:** andybuch@hughes.net

**Website:**



Two-time Pulitzer Prize winner, Alan Taylor, lectured at the Wallonsburg, New York Grange Hall in September 2014.



<b>NEIWPCC Code</b>	L-2014-053
<b>Date Complete:</b>	1/16/2015
<b>Grant Amount:</b>	\$1,975.00
<b>Non-federal Match:</b>	\$ 700.00
<b>Total Amount:</b>	\$2,675.00

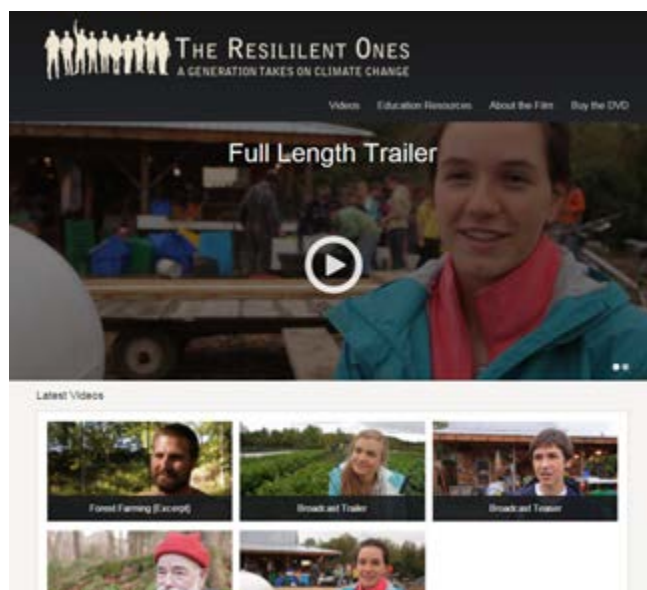
Education  
& Outreach

2014

Local Implementation  
Grant**Adapt NY: Understanding the Effects of Climate Change in the Adirondacks****Project Summary**

Mountain Lake PBS created and distributed a one-hour public television documentary about the impacts of climate change in the Lake Champlain region of New York. PBS also created an educational website and arranged public screenings of the program. The project met the LCBP goals of enhancing educator and student learning about watershed issues and building awareness and understanding among residents and visitors about Lake Champlain Basin resources and behaviors that contribute to pollution.

The program aired on Mountain Lake PBS to the entire Lake Champlain watershed and as far away as Montreal and Quebec. The station also organized screenings at the Adirondack Research Consortium annual meeting which attracted approximately 100 participants. There was an accompanying Q&A session with the filmmakers, students and experts featured in the film, including Curt Stager from Paul Smith's College.

**Organization:** Mountain Lake PBS**Contact Person:** Daniel Swinton**Mailing Address:** One Sesame Street  
Plattsburgh, NY 12901**Phone:** 518-563-9770 ext. 126**E-mail:** dswinton@mlpbs.org**Website:** <http://climatechange.mountainlake.org/>Lake Champlain  
Basin Program

<b>NEIWPCC Code:</b>	L-2014-057
<b>Date Complete:</b>	10/16/2014
<b>Grant Amount:</b>	\$6,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$6,000.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Addison County River Watch Collaborative Town Outreach Program

## Project Summary

The goal of LCBP funding was to help ACRWC create forums at the town level where citizens felt comfortable voicing their own observations and concerns and where the number of participants was small enough to allow for detailed discussions of methods, data, and water management policies. It was decided that town conservation commissions – non-regulatory bodies charged with protecting natural resources – would be the logical partners in co-hosting such discussions called “Water Quality Chats”.

The Lewis Creek Association completed the following tasks as part of the project:

- Created an attractive display (from donated materials and craftsmanship) to act as a backdrop to general ACRWC information.
- Utilized new outreach venues to reach constituencies that might otherwise not attend the “Water Quality Chats.” Groups included: the Champlain Valley Farmer Coalition and Addison County Rotary.
- Created a “buzz” in the general public through a 16-page insert featuring Addison County Rivers and River Watch in the Addison County Independent Newspaper, and through LCA presence at the Middlebury Co-op’s Earth Day, ACORN’s Sustainability Expo, and, the Champlain Valley United Universalist Society in Middlebury.
- Convened four Water Quality Chats with seven conservation commissions (total attendance was 57 people) to discuss water quality issues.

**Organization:** Lewis Creek Association

**Contact Person:** Matt Witten

**Mailing Address:** 442 Lewis Creek Rd.  
Charlotte, VT 05445

**Phone:** 802-434-3236

**E-mail:** mwitten@gmavt.net

**Website:** www.lewiscreek.org



<b>NEIWPCC Code:</b>	L-2014-014
<b>Date Complete:</b>	4/3/2015
<b>Grant Amount:</b>	\$2,693.00
<b>Non-federal Match:</b>	\$1,458.00
<b>Total Amount:</b>	\$4,151.00

Education  
& Outreach

2012

Local Implementation  
Grant

## Bilingual Boating Publication

## Project Summary

The Lake Champlain Committee updated and expanded its bi-lingual boating publication for distribution to Lake Champlain boaters. The publication presents “best management practices” for boaters in an accessible format covering topics ranging from low pollution marine engines and fueling guidance to greywater disposal and invasive species spread prevention. The publication will be distributed through a wide variety of user networks including New York, Québec, and Vermont marinas and boating businesses, along with New York and Vermont environmental and enforcement agencies. The bi-lingual boaters’ manual will inform citizens on current environmental and safety rules and regulations, provide guidance on environmentally sound boat maintenance practices, update boaters on current lake issues, and foster stewardship.

The goal of the project was to develop an educational publication available to boaters in both English and French that provides current information about environmentally sound boating habits.

LCC researched rules and regulations, applicable boating standards, and other educational programs. LCC also contacted experts in the region to get their input on the content, ensure readability, and check accuracy. The French translation was contracted with a professional translator who is also a boater. The work was conducted from 2013 through July 31, 2015.

**Organization:** Lake Champlain Committee

**Contact Person:** Lori Fisher

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

**Phone:** 802-658-1414

**E-mail:** [lorif@lakechamplaincommittee.org](mailto:lorif@lakechamplaincommittee.org)

**Website:** [www.lakechamplaincommittee.org](http://www.lakechamplaincommittee.org)



<b>NEIWPC Code:</b>	L-2013-006
<b>Date Complete:</b>	7/29/2015
<b>Grant Amount:</b>	\$ 7,500.00
<b>Non-federal Match:</b>	\$ 9,389.00
<b>Total Amount:</b>	\$16,889.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Bugworks 2014

## Project Summary

Bugworks 2014 was a success despite some early challenges. Students collected, identified and classified macroinvertebrates from local streams. The students were then able to align their collection as indicators of good or poor water quality. Bugworks sessions were made available to each elementary school within the Missisquoi Watershed. Thirteen sessions reached 7 schools and community programs which involved 232 students.

MRBA's received positive feedback about Kurt Valenta, the naturalist hired to complete the programs. Kurt's teaching methods have brought new life and excitement into the program. MRBA continues to offer this important program to engage some of the youngest members of the watershed – who, in turn, bring this information home and start to make connections with their own responsibilities "downstream."

**Organization:** Missisquoi River Basin Association

**Contact Person:** Lyndsey Wright

**Mailing Address:** 9534 Route 36, Unit 5  
East Fairfield, VT 05448

**Phone:** 802-827-3360

**E-mail:** mrba@pshift.com

**Website:** [troutrivernetwork.org/mrba/index.html](http://troutrivernetwork.org/mrba/index.html)



<b>NEIWPCC Code:</b>	L-2014-017
<b>Date Complete:</b>	2/4/2015
<b>Grant Amount:</b>	\$4,745.00
<b>Non-federal Match:</b>	\$1,290.00
<b>Total Amount:</b>	\$6,035.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Educational Outreach for Seniors in Vermont and New York

## Project Summary

Lake Champlain Maritime Museum's mission is to preserve and share the history and heritage of Lake Champlain and its region. LCMM accomplishes this mission on and off our campus through interactive exhibits, programs, lecture series, on-water education, and school programs.

LCMM receives many requests from Vermont senior groups, libraries, book clubs, and historical societies for lectures and presentations on lake ecology, historically significant events, Lake Champlain's shipwrecks, and the people who helped shape life in the Champlain Basin. Many of these requests come from senior citizen assisted living facilities whose residents have mobility and transportation issues that prevent them from visiting the LCMM campus, and from senior groups that have limited or no funding available for educational programs. Through this project, LCMM provided an outreach series of 11 educational lectures to assisted living facilities, providers, clubs and organizations at no cost. The lectures took place between March and August 2014. LCMM historians and archaeologists traveled to eleven facilities/sites over the grant period to make presentations, providing accessible programming to elderly residents.

**Organization:** Lake Champlain Maritime Museum

**Contact Person:** Sarah Judd

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

**Phone:** 802-475-2022

**E-mail:** sarahj@lcmm.org

**Website:** <http://www.lcmm.org/>



<b>NEIWPCC Code:</b>	L-2014-045
<b>Date Complete:</b>	10/16/2014
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,000.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Floating Classrooms

## Project Summary

The Floating Classrooms program had its most successful year to date. Nearly 900 students participated in hands-on science learning on Lake Champlain. It was the first lake experience for many of the participating students. As a result, a partnership between Burlington School District and the Community Sailing Center has formed to deepen the relationship to the lake for students. This success fosters a generation of students that understand stewardship and have a sense of ownership towards Lake Champlain. Teachers and administrators from partner schools have enjoyed the program and commented publicly on its impact on students in the classroom. Our program is a 3 hour 'field trip' which includes on-shore lessons and a sailing experience that includes discussions of human impact on Lake environments and stewardship efforts. Fifteen schools participated including every elementary school in Burlington School District between May and October.

Floating Classrooms is important in our lake-based community because it connects all students to the lake through education and recreation. Many students do not have the family means to experience the lake firsthand. While education is our goal, our focus is creating access for all people of our community. This is important to ensure every community member, old and young, understands Lake Champlain's relevance in our lives and the need to protect its shores and waters.

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**Website:** www.communitysailingcenter.org



<b>NEIWPCC Code:</b>	L-2014-044
<b>Date Complete:</b>	12/23/2014
<b>Grant Amount:</b>	\$ 6,000.00
<b>Non-federal Match:</b>	\$15,579.00
<b>Total Amount:</b>	\$21,579.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Lake Champlain Headwaters Environmental Issues Educator

## Project Summary

In 2014, the Adirondack Watershed Institute Stewardship Program directed staff time for a variety of employees to public education and outreach functions, including formal workshops and informal outreach at farmer's markets, special events, and lake association meetings. Stewards were extraordinarily active conducting education and outreach during Memorial Day to Labor Day steward program season. Stewards also maintained an expanded social media presence through an electronic outreach campaign.

This project utilized trained boat launch stewards to conduct public outreach where larger audiences tend to gather in the Adirondacks.

**Organization:** Watershed Stewardship Program

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PO Box 265  
Paul Smiths, NY 12970

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**Website:** www.adkwatershed.org



<b>NEIWPC Code:</b>	L-2014-046
<b>Date Complete:</b>	7/29/2015
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$4,000.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Lake Champlain Native Plant Restoration Nursery Education Program

## Project Summary

This project provided an opportunity to raise awareness about the Plant Restoration Nursery, the benefits of planting native plant species, and the need to reduce the spread of non native species. The outcomes of this project included an update to the Nature Conservancy brochure, two open house and plant sale events, outreach to 9 area towns, and at four municipal events. Additionally, 60-70 GMC students gained first hand skills in seed collection, propagation, transplanting, developing educational programs, collaboration, and marketing.

PMNRCD worked with local homeowner's, primarily along lake front property, to increase the shoreline buffer width and incorporate native plants into the landscaping. This consultation, coinciding with the Shoreland Protection Act, helped owners better understand the new law.

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<b>NEIWPCC Code:</b>	L-2014-015
<b>Date Complete:</b>	4/2/2015
<b>Grant Amount:</b>	\$5,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$5,000.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Lake George Floating Classroom 2014

## Project Summary

In 2014, 2,415 participants experienced the Floating Classroom program. The majority of participants were students; however the program also included 605 adult participants.

The Floating Classroom held its first seasonal program for students in May 2014. The spring season (May-June) included 15 different school districts, with 10 returning schools and 5 schools new to the program. A total of 47 Floating Classroom programs were conducted in the Spring with a total of 1,115 participants.

Summer Floating Classroom programs were mostly comprised of public programs, where anybody interested could sign up and take part. A total of 28 Floating Classroom programs were conducted during the Summer with a total of 642 participants.

The 2014 Floating Classroom program season finished with a fall season (September-October) full of activity. There were 11 returning schools and 3 new schools that took part. A total of 32 Floating Classroom programs were conducted in the Fall with a total of 658 participants.



Students learned about landscape and water pollution issues and conducted several water quality tests during each program.



<b>NEIWPCC Code:</b>	L-2014-031
<b>Date Complete:</b>	12/23/2014
<b>Grant Amount:</b>	\$7,500.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$7,500.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Municipal De-Icing Best Management Practices Outreach Program

## Project Summary

The Municipal De-Icing Best Management Practices Outreach Program is a continuation of work begun in 2013 by the Lake Champlain – Lake George Regional Planning Board (LCLGRPB) aimed at educating local and county municipalities on improved winter road maintenance Best Management Practices. Funding was used to educate decision makers on the importance of improved winter road maintenance and discuss their roles in helping their DPWs utilize the new technologies.

The *Efficiency in Winter Road Maintenance* workshop was held on May 6, 2015 in Lake George, NY, with 46 attendees from 17 municipalities as well as NYS DOT. Open dialogue was created between supervisors and highway superintendents on how to move forward with improved winter road maintenance. Staff at the LCLGRPB, as well as the partner Lake George Association, have begun compiling information for several municipal public works crews including available and needed equipment, inventorying the municipalities winter road maintenance procedures or lack thereof, and initiating draft policies and strategic 5-year plans for moving forward with improved practices.

**Organization:** Lake Champlain - Lake George RPB

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Paul Brown, PE speaking at the Efficiency in Winter Road Maintenance Workshop of May 6, 2015 in Lake George.  
Photo credit LCLGRPB



<b>NEIWPCC Code:</b>	L-2014-012
<b>Date Complete:</b>	9/8/2015
<b>Grant Amount:</b>	\$6,000.00
<b>Non-federal Match:</b>	\$2,400.00
<b>Total Amount:</b>	\$8,400.00

**Residential and Private Road and Driveway Runoff Reduction****Project Summary**

Surface runoff from developed land is significant source of pollutants to the Winooski River and Lake Champlain. Most stormwater management efforts and almost all regulatory requirements have been focused on densely developed urban and suburban areas. However, land conversion from agriculture or forest to residential is progressing rapidly in many rural communities. The problem of rural stormwater has begun to receive more focus. Road infrastructure is an area of particular concern.

This project focused on reducing erosion and runoff from private property, particularly private roads and driveways. The target area was the watersheds of the North and Kingsbury Branches (all of Calais and Worcester; and significant portions of Woodbury, East Montpelier and Middlesex). The Town of Calais, through its Lakes and Stream Committee (CLSC) partnered with neighboring communities and the Friends of the Winooski River (the Friends) to educate landowners about the road runoff issue and provide landowners with information as to how to correct problems.

The objective of the project was to educate residents of the North and Kingsbury Branches as to how they can reduce runoff and erosion from their properties, particularly for private roads and driveways.

The project used a variety of outreach mechanisms to reach its audience including print media (specific the Calais Lakes and Streams Committee newsletter); two workshops and online outreach via the Friends of the Winooski River webpage, newsletter and a Facebook page as well as Front Porch Forum.

**Organization:** Town of Calais c/o Friends of the Winooski River

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info@winooskiriver.org

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<b>NEIWPCC Code:</b>	L-2014-058
<b>Date Complete:</b>	6/9/2015
<b>Grant Amount:</b>	\$6,200.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$6,200.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Soil Savers

## Project Summary

The Soil Savers program reached out to landowners, farmers, government officials and students to educate and assist them on making better decisions for the land, whether it is for a large agricultural project or a small household composting project. The SWCD held community trainings with experts in many different aspects of soil health, school programs, a community event with conservation organizations in Halfway Brook in the Champlain Watershed, assisted municipalities and a soil program at a public library. The District reached out to local schools, newspapers and social media to inform the community of Soil Saver events.

Soil Saver programs are established for elementary students up through landowners and farmers. With equipment that includes soil test kits, soil probes, augers and sifters, the District plans to continue with school programs and assisting landowners on soil health and spot testing. High school programming went very well due to hands-on activities and real world applications. The District had each student bring in a soil sample from home and use soil test kits for analysis. The students analyzed their results and determined nutrient amendments needed. Using plant nutrient charts, they determined what type of vegetables could be grown. Students then used soil probes and compared soil test results.

The community trainings covered a wide variety of soil health topics including farms with barnyards and pastures, cover crops, no till, composting, soil structure with physical and chemical properties, erosion, nutrient runoff and invasive species.

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Lake George High School students test soil properties.



<b>NEIWPCC Code:</b>	L-2014-042
<b>Date Complete:</b>	4/2/2015
<b>Grant Amount:</b>	\$ 5,600.00
<b>Non-federal Match:</b>	\$ 5,432.00
<b>Total Amount:</b>	\$11,032.00

Education  
& Outreach

2013

Local Implementation  
Grant

## St Albans City School Watershed Health Demonstration Garden

## Project Summary

Students at St. Albans City School, located within the critically impaired St. Albans Bay watershed, helped design and implement a bio-retention rain garden to mitigate runoff and pollution, and reduce erosion from a heavily used parking lot. The project involved students in every phase of the process, including meeting with environmental engineers, assessing the site, designing the bio-retention garden, choosing the specific plants, planting and maintaining the garden, and communicating about the project with community members and the local media. Students presented their work at the 2015 International Society for Technology in Education Conference and Expo in Philadelphia, wrote articles for the local paper, and presented to the SACS School Board. Students assessed the site and compared stormwater runoff before and after the implementation of the bio-retention garden to quantify effects of the treatment.

Students subsequently created a two minute video about their project and won a World Water Day award through the Champlain Basin Education Initiative in March 2015.

Link to video:

<https://www.youtube.com/watch?v=5XuxCkzu3M-M&rel=0&>

**Organization:** St Albans City School

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<b>NEIWPCC Code:</b>	L-2014-016
<b>Date Complete:</b>	9/8/2015
<b>Grant Amount:</b>	\$6,670.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$6,670.00

Education  
& Outreach

2013

Local Implementation  
Grant

## Watershed Wise: Watershed Alliance Teacher Training

## Project Summary

*Watershed Wise: Watershed Alliance Teacher Training* is a professional development experience for Lake Champlain Basin educators that want to use UVM Watershed Alliance curriculum to teach river and watershed health and promote environmental literacy. *Watershed Wise* teacher trainings were held in three locations: Rutland, Burlington and Shelburne, Vermont.

Project objectives were:

- 1) develop a training model that could be repeated in three different locations and continued at least twice a year for new and veteran Watershed Alliance teachers;
- 2) design tiered assessments and overhaul the educator reference handbook for teachers;
- 3) develop and teach three trainings and design a training evaluation document;
- 4) design and implement a tiered learning system to allow new teachers to initiate and veteran teachers to advance their learning.

All of the listed objectives were accomplished. The Watershed Alliance incorporated the tiered learning system and train-the-trainer model into the Watershed Alliance strategic plan for Lake Champlain Sea Grant.

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Through in-stream activities educators teach students about chemical, physical, and biological parameters of river systems.



<b>NEIWPCC Code:</b>	L-2014-034
<b>Date Complete:</b>	7/29/2015
<b>Grant Amount:</b>	\$6,000.00
<b>Non-federal Match:</b>	\$1,210.00
<b>Total Amount:</b>	\$7,210.00

## Education & Outreach

Organizational  
Support

2014

Local Implementation  
Grant

## AmeriCorps Member Sponsor Match

## Project Scope

The Friends of Northern Lake Champlain works within Franklin County to reduce nonpoint source pollution from entering Lake Champlain and its tributaries. Through community outreach, FNLC fosters relationships with private landowners, agricultural producers, and municipal governments. FNLC works to identify opportunities to reduce nutrient inputs from agricultural runoff, failing septic systems, shoreline erosion, and stormwater runoff. This grant supplied the match needed for an AmeriCorps member to work under the direction of the Executive Director and Board on projects supporting the FNLC mission of clean water.

Deliverables included a spreadsheet with stormwater projects organized by funding source, a Lake Wise Plan, an event list, a list of Landowners in attendance, and associated outreach materials.

**Organization:** Friends of Northern Lake Champlain

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**NEIWPCC Code:** PO# 10981

**Date Complete:** 9/30/15

**Grant Amount:** \$4,000.00

**Non-federal Match:**

**Total Amount:** \$4,000.00

# Organizational Support 2014

## Local Implementation Grant

### Expanding AsRA Capacity to Provide Technical Assistance for Effective Stream and Infrastructure Restoration to Ausable Communities

#### Project Scope

Two stream training opportunities in 2015 extended AsRA's capacity to serve as an active resource to municipalities, government agencies, and the community for restoration efforts in the watershed. The first, a one-week Level II training by David Rosgen PhD., of Wildland Hydrology, is a follow up to coursework completed in 2014 under a LCBP grant. Knowledge and skills learned ensured AsRA's capacity to provide replicable stream measurement data to restoration partners and initial technical assessments to land-owners and local communities considering restoration alternatives. The second course, stream crossing training offered by the US Forest Service in June, provided critical in-depth knowledge of applied approaches specific to replacing and retrofitting culverts at road-stream crossings – a major focus for AsRA's work in the next several years.

AsRA's executive director completed Level II "River Assessment and Monitoring" taught by Dave Rosgen of Wildland Hydrology in March 2015 and completed US Forest Service course "Designing for Aquatic Organism Passage at Road-Stream Crossings" in May 2015. Two TNC staffers attended this training.

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Lake Champlain  
Basin Program

<b>NEIWPCC Code:</b>	PO# 10944
<b>Date Complete:</b>	6/24/15
<b>Grant Amount:</b>	\$4,000.00
<b>Non-federal Match:</b>	\$5,280.10
<b>Total Amount:</b>	\$9,280.10

Pollution  
Prevention

2013

Local Implementation  
Grant

## Bio Filter and Retention in Sheldon Spring

## Project Summary

The Friends of Northern Lake Champlain created a stormwater master plan for the Town of Sheldon and Sheldon Springs. As FNLC were exploring this area, staff observed significant stormwater issues around Sheldon Springs, near a 100+ year old industrial paper mill that sits on top of the Missisquoi River. The report created for this section of the town encourages a more in depth study of this area to address several potential opportunities to treat the stormwater.

This site is located in Sheldon Springs, Vermont on the Missisquoi River.

The Friends of Northern Lake Champlain saw an opportunity to work with the company and the town to implement a small project to begin to capture and treat the water flowing off the hill side.

The objectives of this project were to capture and treat stormwater from a portion of the road and a gravel lot. The 2 tiered bio retention project treats about ½ an acre of water. The design was developed by Stone Environmental and includes a tiered bio retention gravel lined catchment basin, stone lined check dams, and a grassed lined catchment basin.

FNLC started this project in the spring of 2014 and completed in the fall. Working closely with the company, FNLC was able to implement a design that met all of the significant stormwater issue on the site.

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The bio-retention site in Sheldon Springs treats 1/2 an acre.



<b>NEIWPC Code:</b>	L-2014-049
<b>Date Complete:</b>	4/21/2015
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	\$ 1,000.00
<b>Total Amount:</b>	\$16,000.00

Pollution  
Prevention

2013

Local Implementation  
Grant

## Increasing Cover Cropping in the St Albans Bay Watershed

## Project Summary

This project was located in the St. Albans Bay sub-watershed of Lake Champlain. The goal of this project was to modify agricultural producer behavior to encourage crop practices designed to improve soil health and reduce the potential negative effects of currently accepted agriculture practices. The main outcomes of this project included 1) improving the knowledge of farm operators in the St. Albans Bay watershed about the benefits of cover cropping in enhancing crop productivity and environmental health and 2) reducing the amount of phosphorus (P) and soil loss from agricultural fields surrounding St. Albans Bay. This project implemented demonstration projects on approximately 30 acres of land which drains directly into the Bay.

This project developed and implemented cover crop demonstrations on farms in St. Albans Bay to further the adoption of this critical practice. The educational portion of the project focused on teaching farmers how to modify cropping practices to improve cover crop establishment that would result in reduced soil erosion and maximum nutrient retention. The primary modification was focused on farmers implementing short season corn which matures at an earlier date resulting in a more timely harvest. After the cash crop was harvested, cover crops were sown to maximize nutrient scavenging and minimize soil erosion. Corn yields were recorded and soil health tests used to determine benefits of these practices.

**Organization:** University of Vermont Extension**Contact Person:** Heather Darby**Mailing Address:** 278 South Main Street  
St Albans, VT 05478**Phone:** 802-524-6501**E-mail:** heather.darby@uvm.edu**Website:** www.uvm.edu/extensionLake Champlain  
Basin Program

<b>NEIWPCC Code:</b>	L-2014-051
<b>Date Complete:</b>	6/29/2015
<b>Grant Amount:</b>	\$14,993.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$14,993.00

Pollution  
Prevention

2013

Local Implementation  
Grant

## Intervale Conservation Nursery: Planting Trees to Improve WQ

## Project Summary

Working with the Town of Williston, the Intervale Center planted 1,500 stems, reforesting six acres along the Allen Brook in Williston. Beginning in March, the Center worked with land owners and the Town of Williston to identify two sites for spring planting and gained permission to plant native trees and shrubs in a protected 150 buffer zone along the Allen Brook. In April 15,306 trees were harvested at the Nursery, including 750 that we replanted at two sites on three acres in May 2014.

After the spring planting was completed, the Town of Williston organized a volunteer day with students and teachers from the Williston Central School to install brush mats and tree tubes at the two acre planting site. The Town of Williston used tree tubes to protect young growth from beaver activity. The presence of tubes created a visual awareness of tree plantings in town. The Town of Williston has pledged to remove brush mats and tree tubes when they are no longer needed. The Town of Williston paid for the Intervale Conservation Nursery crew to conduct mechanical brush management for one day at the two acre spring planting site. This management activity was critical for some areas of this site that were overgrown with bindweed.

The Intervale Center harvested 2,696 stems and planted 750 of them in Williston, on the Allen Brook, adjacent to a new residential and commercial development.

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<b>NEIWPC Code:</b>	L-2014-004
<b>Date Complete:</b>	12/22/2014
<b>Grant Amount:</b>	\$14,966.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$14,966.00

# Pollution Prevention 2013

## Local Implementation Grant

### Lake George Municipal De-Icing Best Management Practices Project

#### Project Summary

Studies around the New York Lake Champlain Basin have shown that winter road maintenance activities are having an adverse effect on water quality through increasing the amount of chloride and sodium within receiving waterbodies. To address this, the LCLGRPB held a Municipal De-Icing Best Management Practices Forum in Lake George, utilizing Lake Champlain Basin Program education and outreach funding, to educate state, county and local highway crews on improved winter road maintenance techniques and activities. One of the outcomes of the Forum was that the DPWs around Lake George are lacking in new technology to aid in maintenance activities.

The LCLGRPB purchased pavement temperature sensors for the towns of Lake George, Queensbury and Dresden DPWs to utilize in their winter road maintenance operations. These sensors help the plow truck operators better gauge the temperature of the road, which is generally higher than the temperature of the air, to better assess the amount of materials needed on the roads. The sensors have been utilized throughout the winter of 2014 – 2015. The municipalities are happy with the performance of the sensors and have used them as a platform to improve other winter road maintenance equipment, including switching to automated spreader systems.

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Town of Queensbury plow truck with pavement temperature sensor. Photo credit LCLGRPB.



<b>NEIWPCC Code:</b>	L-2014-003
<b>Date Complete:</b>	2/12/2015
<b>Grant Amount:</b>	\$7,782.00
<b>Non-federal Match:</b>	\$ 200.00
<b>Total Amount:</b>	\$7,982.00

Pollution  
Prevention

2013

Local Implementation  
Grant

## Lamoille Watershed Road Erosion Assessment

## Project Summary

In 2014 the Lamoille County Planning Commission, with assistance from Watershed Consulting Associates, conducted an analysis to map, inventory, and prioritize erosion on Class 3 and 4 roads, and prepare repair designs for high priority road erosion sites within the Lamoille watershed Towns of Johnson, Eden, Belvidere and Waterville. The purpose of the project was to 1) better understand the scope of the erosion problems along Class 3 and 4 roads, 2) to provide an inventory of erosion sites, 3) prioritize the erosion sites for impact to water quality by sedimentation, 4) provide a simple site map and erosion treatment techniques for the highest priority erosion sites, and 5) share the results and discuss the erosion treatment techniques with the Towns.

Staff documented 176 erosion sites across the four towns. Of these, 73 were scored as high-priority, 74 as medium priority and 29 as low priority. Remediation designs were prepared for 22 high-priority sites, and sites needing further engineering were identified. LCPC staff met with each Town to discuss the assessment results and how the information can be used to better plan for and fund future upgrades to the road network.

The identification and prioritization of road erosion sites along with the repair designs will help the Towns budget for and implement the necessary repairs. This will reduce sedimentation to water resources, while also reducing the need for repeated maintenance by road crews. The GIS inventory of the erosion sites should be updated periodically to reflect repairs made to the drainage system. Once the initial high-priority sites have been addressed, additional mapped sites could be targeted for repair based on the priority scoring. Sites identified for a full engineering design should also be reviewed by the Towns and prioritized for inclusion in capital budgets.

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<b>NEIWPC Code:</b>	L-2014-035
<b>Date Complete:</b>	4/2/2015
<b>Grant Amount:</b>	\$12,200.00
<b>Non-federal Match:</b>	\$ 4,451.00
<b>Total Amount:</b>	\$16,651.00

# Pollution Prevention 2013

## Local Implementation Grant

### Mossy Point Boat Launch Stormwater Mitigation Project

#### Project Summary

The Mossy Point Boat Launch Stormwater Mitigation Project is located at the Mossy Point Boat Launch in Ticonderoga, NY at the northern end of Lake George. It was started in the spring of 2014 with a survey of the site by the Warren County Soil and Water Conservation District (WCSWCD) and completed on November 21st when the stormwater turnouts were paved. The objective of the project was to capture and treat stormwater runoff that was entering Lake George without being treated. Working with WCSWC, the Town of Ticonderoga Highway Department and the New York State DEC, the LGA successfully completed the project. LGA is now treating a majority of the stormwater runoff coming off of the 3.5 acre parking lot.

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<b>NEIWPCC Code:</b>	L-2014-010
<b>Date Complete:</b>	6/2/2015
<b>Grant Amount:</b>	\$15,000.00
<b>Non-federal Match:</b>	\$ 5,720.00
<b>Total Amount:</b>	\$20,720.00

Pollution  
Prevention

2013

Local Implementation  
Grant

## Stormwater Mitigation at Palmer Court

## Project Summary

The Palmer Court neighborhood in Williston was built in the 1960s and therefore predates mandated stormwater controls. The cul-de-sac at the end of Palmer Court receives runoff from approximately  $\frac{3}{4}$  acre, over half of which is impervious surface. The Williston Townwide Watershed Improvement Plan identified the installation of a bioretention area in the cul-de-sac as a high priority project. According to a modeling based on the National Urban Runoff Program, a bioretention area would capture 200 pounds of sediment and one pound of phosphorus per year. This project designed and constructed a bioretention facility.

The design and engineering work was done during the summer of 2014. The field work included a site survey and soil testing. This information was used to create the engineering plans. The consultant, Stone Environmental, Inc. worked closely with the Town of Williston to ensure their approval of the project. The Town is responsible for maintaining the installation.

The project was completed as expected with little to no problems.

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<b>NEIWPC Code:</b>	L-2014-048
<b>Date Complete:</b>	7/8/2015
<b>Grant Amount:</b>	\$14,725.00
<b>Non-federal Match:</b>	\$ 2,225.00
<b>Total Amount:</b>	\$16,950.00

# Pollution Prevention 2010

## Local Implementation Grant

### Water Conservation to Reduce P Inputs to Waste Water Treatment Facilities

#### Project Summary

The goal of the project was to help people make the connection between water conservation and water quality and to foster behavior changes. LCC researched and reviewed water conservation programs around the country to tailor an approach for our region. LCC focused the campaign on helping people understand that the amount of water they use has ecological and economic implications and that by conserving water they can protect water quality, reduce energy demand and save money.

#### Actions, Results and Timeframe

LCC became an EPA WaterSense partner for the Lake Champlain region, promoted World Water Days and the national "Fix a Leak Week", worked with area Chambers of Commerce and partnered with area salons to promote water conservation. LCC produced and distributed water conservation tips, enlisted businesses and the Chamber of Commerce in promoting water conservation information via their distribution networks, produced water conservation information for media use, adapted our lake protection pledge to include water conservation tips, developed a water conservation section for LCC's website, mailed and emailed water conservation tips to Lake Champlain watershed residents, incorporated water conservation themes into presentations to civic groups, and conducted media interviews and programs on water conservation. LCC also developed water conservation PSAs which aired in 2014 throughout the Lake Champlain watershed. Thanks to the funding from the Lake Champlain Basin Program LCC was able to develop a strong water conservation initiative which is now one of LCC's ongoing programs.

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By becoming an EPA WaterSense partner LCC gained access to tips, tools and advice for developing an effective water conservation campaign.



<b>NEIWPCC Code:</b>	LS-2011-033
<b>Date Complete:</b>	12/8/2014
<b>Grant Amount:</b>	\$24,025.00
<b>Non-federal Match:</b>	\$ 7,462.00
<b>Total Amount:</b>	\$31,487.00

Pollution  
Prevention

2010

Local Implementation  
Grant

## Willsboro Constructed Wetland Demonstration Project

## Project Summary

The constructed wetland pilot project in the Town of Willsboro was completed in the summer of 2010. Prior to wetland planting, initial constructed wetland effluent samples indicated phosphorus reduction of 95% from the secondary plants treated effluent (from 3.2 mg/L to 0.16 mg/L). BOD 5-day was reduced to 69% from 7.8 MG/L to less than 24 mg/L and TSS reduced 86% from 7.8 mg/L to 1.1 mg/L.

After amendment and reconstruction a second set of samples were taken and total phosphorus was reduced from 1.9 to .2 for an 89% reduction. BOD 5-day was reduced from 5 to less than 2.2 for a 56% reduction, TSS 3.4 to less than 1 for a 71% reduction. Flow volume was increased from first design but no flow meter to determine how much effluent was being treated for phosphorus removal.

The objective was to document effectiveness of the system so constructed wetland cells could be expanded to treat hamlet's entire treated effluent. Challenges encountered included late sampling, little to no flow in cells, the Town shut down the system and engineering design flaws. Limited samples and cell repair was conducted.

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Elizabethtown, NY 12932

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<b>NEIWPCC Code:</b>	L-2011-031
<b>Date Complete:</b>	7/15/2015
<b>Grant Amount:</b>	\$23,928.00
<b>Non-federal Match:</b>	\$ 6,435.00
<b>Total Amount:</b>	\$23,928.00

Shoreline  
Habitat

2012

Local Implementation  
Grant

## Buffer Lake George

## Project Summary

The FUND for Lake George initiated the Buffer Lake George Program to mitigate excessive nutrient loading by infiltrating runoff and absorbing nutrients before they flow unfiltered into the lake. In cooperation with local Water Quality Awareness Committees, the Program identified and buffered 20 shoreline properties around the lake. Each site was evaluated by the Lake George Waterkeeper staff to determine if the location would effectively control soil erosion, mitigate storm-water runoff, and provide habitat for wildlife. The Waterkeeper Steering Committee developed protocols to assure the quality of the projects and ensure property owner commitment, and worked with local nursery and landscaping professionals to develop plans for each property to implement plantings.

**Organization:** The FUND for Lake George

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Lake George, NY 12845

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Before



After



<b>NEIWPCC Code:</b>	L-2012-022
<b>Date Complete:</b>	1/7/2015
<b>Grant Amount:</b>	\$10,000.00
<b>Non-federal Match:</b>	\$16,748.00
<b>Total Amount:</b>	\$26,748.00

Shoreline  
Habitat

2012

Local Implementation  
Grant

## Bulwagga Bay Campground Shoreline Stabilization Project

## Project Summary

The town of Moriah, NY, used shoreline habitat grant funds to construct a 75-foot-long berm at the Bulwagga Bay Beach Campground. This berm stabilizes an area where extensive erosion has resulted in the significant loss of shoreline vegetation, extensive damage to campground infrastructure, and hazardous conditions for residents and visitors. In addition to protecting the town's investment in public recreation facilities, the project benefits the near-shore aquatic environment with the introduction of native shoreline vegetation and improved water quality by reducing sedimentation. The established vegetation provides habitat for wildlife, and the shade generated from the trees when they mature will benefit fish and other water organisms.

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Shoreline protection



<b>NEIWPCC Code:</b>	L-2013-013
<b>Date Complete:</b>	2/13/2015
<b>Grant Amount:</b>	\$ 9,888.00
<b>Non-federal Match:</b>	\$ 4,141.00
<b>Total Amount:</b>	\$14,029.00

SECTION FOUR:

# TECHNICAL PROJECTS

2011

# Technical Projects

## Addressing Critical Source Areas in the Missisquoi Bay Watershed by Implementing Conservation Field Practices

### Project Summary

Through collaboration with partners, this project offers a 100% cost share incentive to farmers for installing conservation field practices on tracts of land that contain critical source areas for phosphorus. The bulk of the funds (75-90%) for this project are made available by NRCS Vermont's America's Great Outdoor (AGO) initiative as part of their Environmental Quality Improvement Program (EQIP). The remaining funds (10-25%) will be matched by the Vermont Agency of Agriculture, Food and Markets (VAAFM) and the Lake Champlain Basin Program (LCBP). Farms were ranked for priority according to total phosphorus load per acre/year from the CSAs identified on their land.

Field staff from several organizations have collaborated to perform initial outreach to farmers identified as high priority through the ranking process. These organizations include: the USDA-NRCS of Vermont; VAAFM; the University of Vermont extension service; the Vermont Association of Conservation Districts (VACD); in addition to several private contractors. The initial goal was to educate the farmers about the program being offered, encourage them to apply, and verify the CSAs identified by the computer model. Through the CSA verification process, information was gathered that will allow us to assess the overall accuracy of the CSA computer model. Over 20 farms are expected to participate in BMP implementation projects with these cost share funds by the close of the contract period.

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<b>NEIWPCC Code:</b>	L-2012-034
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$170,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$170,000.00

2011

# Technical Projects

## Agricultural Practice Monitoring and Evaluation

### Project Summary

Recent modeling efforts undertaken by EPA have estimated that almost 40% of the annual phosphorus load delivered to Lake Champlain is attributable to agriculture and that the vast majority of the agricultural load is attributable to hay and cropland (USEPA 2013). 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 many of these practices in reducing P and sediment losses from agricultural land is not well documented. Only a limited number of studies exist from sites with similar climate and landscape settings to Vermont.

This study addresses an urgent need to evaluate and document the effectiveness of conservation practices in the Lake Champlain Basin. This project was designed to meet the stated purpose of USDA-NRCS Conservation Practice Standard 799 – Monitoring and Evaluation, which is to sample and measure water quality parameters to evaluate conservation system and practice performance. Although the 799 Standard has since been discontinued by NRCS, this monitoring program continues subject to its guidelines. More information about NRCS Conservation Practice Standards can be found at: [www.nrcs.usda.gov/technical/Standards/nhcp.html](http://www.nrcs.usda.gov/technical/Standards/nhcp.html). The principal hypothesis being tested is that application of these conservation practices will significantly reduce runoff losses of nutrients and sediment from agricultural fields in corn and hay production. The final report deliverable under this contract served as an interim project report, as these studies are still under way under a separate

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contract with LCBP (see next project, Stone Environmental, page 140) and will continue for several more years. Initial results indicate that WASCoBs do not reduce significant amounts of nutrients or sediment from cropland runoff. The calibration period for the other 6 sites ended in 2013; 2014 was a dry year and did not provide enough runoff events to generate strong inferences regarding the efficacy of those BMPs. The extra field season in 2015 (beyond the scope of this study) should have provided more data.



<b>NEIWPCC Code:</b>	L-2012-005
<b>Date Complete:</b>	CLOSED
<b>Grant Amount:</b>	\$316,887.00
<b>Non-federal Match:</b>	\$ 52,986.00
<b>Total Amount:</b>	\$369,873.00

2013

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

## Project Summary

Vermont farmers have shown strong and lasting interest in implementing agricultural conservation practices such as conservation tillage, manure and nutrient management, and cover crops. Although producers often attribute significant agronomic and water quality benefits to these management practices, reductions in nutrient and sediment losses from agricultural land due to practice implementation are not well documented. Few studies have been completed at sites with similar climate and landscape settings to those in Vermont. In addition, many of the reported studies were conducted at the plot-scale and with simulated rainfall; such results may not apply directly to the field or watershed scales.

USDA-NRCS, the Vermont Agency of Agriculture (VTA-AFM), the Vermont Department of Environmental Conservation (VTDEC), and the Lake Champlain Basin Program (LCBP) are currently cooperating to evaluate the effects of several agricultural conservation practices on runoff water quality. These organizations initiated a program in 2012 to monitor field runoff at fourteen stations located on six farms in the Vermont portion of the Lake Champlain Basin. Monitoring facilities and procedures were designed in accordance with the USDA-NRCS Interim Conservation Practice Standard 799 – Monitoring and Evaluation. The monitoring facilities and procedures are described in a Quality Assurance Project Plan (Stone Environmental, 2013), approved by the New England Interstate Water Pollution Control Commission.

Stone Environmental is under contract with the Vermont Agency of Agriculture to complete the fieldwork, data management and analyses, and reporting for

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this study. The agricultural practices being evaluated include:

- Soil aeration on hayland (VT NRCS Practice Standard 633) prior to manure application;
- Reduced tillage (VT NRCS Practice Standard 329) with manure injection and cover cropping on corn land;
- Cover cropping (VT NRCS Practice Standard 340) on corn land; and
- A water and sediment control basin (WASCoB) (VT NRCS Practice Standard 638) treating runoff from corn land.
- A grassed waterway (VT NRCS Practice Standard 412) treating runoff from agricultural fields.



**NEIWPCC Code:** L-2014-062  
**Date Complete:** OPEN  
**Grant Amount:** \$311,031.00  
**Non-federal Match:**  
**Total Amount:** \$311,031.00

2013

# Technical Projects

## Assessing the Economic Value of Clean Water in the Champlain Basin

### Project Summary

The regional economy, quality of life and tourism rely on clean water in Lake Champlain and its surrounding basin. This project explored water quality and property valuation, tourism expenditures and regional economic activity at various scales.

At the parcel scale, both single family residential and seasonal home purchasers associated higher (lower) water quality with increased (decreased) selling price. A one meter increase in water clarity is equated with a nearly 3% average increase in single family home value, and a 37% average increase for seasonal homes. Proximity to the Lake also contributes significantly to property valuation. Single family and seasonal residences within 100 m of Lake Champlain are expected to sell for nearly 30% and 49% more than similar residences that are located outside this area. Scenario analysis of changes in total phosphorous in the Lake from both climate change and meeting legal load targets found that increases from climate change is estimated to result in a \$4,900 and \$53,000 average price decrease, while reduced loading from TMDL implementation would result in a \$5,700 and \$61,000 average price increase for single family dwellings and seasonal residences, respectively.

At the scale of lake-side towns, water clarity during the peak summer months of July and August indicate a significant impact on lodging expenditures, an indicator of tourism spending more broadly. A linear regression model estimated a \$2,303 increase per average lodging unit per meter of water clarity increase. Extrapolating to the five-town scale concludes that a one-meter improvement in water clarity is expected to lead to a 10% increase (\$110,544) in room expenditures for the month of August alone.

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At the regional scale an input-output model was constructed for a six-county lakeshore economy in Vermont and New York. County-level employment, income, industry and household characteristics were used to assess the economic flows among sectors. A four-county Vermont model found that every dollar of tourism expenditures generates an additional \$0.57 in labor income and \$0.62 in other value added (taxes, property income, profits). Every new job creates an additional 0.4 jobs in supporting and induced activities. The \$300 million estimated annual tourist expenditures in Vermont's four main lakeside counties generate an additional \$72.75 million in spending and nearly 1,070 jobs. Extrapolating from the town-scale model, a one-meter decrease in water clarity during the months of July and August would lead to the loss of 195 full-time equivalent jobs, a \$12.6 million reduction in tourism expenditures and a total economic reduction of nearly \$16.8 million.



<b>NEIWPC Code:</b>	L-2014-031
<b>Date Complete:</b>	CLOSED
<b>Grant Amount:</b>	\$72,891.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$72,891.00

2011

# Technical Projects

## Blue-green Algae Monitoring

### Project Summary

For the 2013 monitoring season the Lake Champlain Committee recruited, trained and oversaw volunteers to act as blue-green algae monitors around the lake. Additionally LCC trained recreational personnel, town health officers, water treatment staff, and citizens interested in learning more about the issue. LCC developed training materials to assist lay people in identifying and assessing the risk of blue-green algae blooms, held training sessions in the region, and collected reports throughout the summer. LCC received a total of 675 reports. Of these, 557 came from 54 locations that reported more than six times, 93 were 'supplemental' reports, and 25 came in after the end of the regular monitoring season. The vast majority of reports from our regular monitoring locations (94.1%) indicated no algae blooms present. Of the remaining reports 4.0% indicated low level blooms and 1.9% indicated extensive blooms.

For monitoring season of 2014 received routine observations from 87 sites were received generating 939 reports. An additional 226 supplemental reports were also received representing extra reports from regular sites, extra sites that did not report regularly, or reports from outside the thirteen-week monitoring season. The vast majority of both regular reports (95.5%) indicated no algae blooms present. Of the remaining reports 2.6% indicated low level blooms and 1.9% indicated extensive blooms. Blooms were most extensive in St. Albans and Missisquoi Bays.

For the 2015 monitoring season LCC offered 23 training sessions and trained over 300 potential volunteers. Volunteer monitors have submitted an average of 100 observations of water conditions per week since mid-June of 2015.

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Volunteer monitors' reports were used to update citizens, guide public health decisions about when to close beaches and were used to populate the VDH's status maps of blue-green algae conditions on the lake. Over 80% of the information on the data tracker map was provided by LCC and our volunteers. This information was communicated to the general public and LCC members. Each week, results were entered into a database maintained by the Vermont Department of Health (VDH) and observations appeared on a publicly available web-based map. LCC updated their web-site and Facebook page and sent a summary email to an extensive list serve. LCC worked collaboratively with the VDH and VTDEC to develop and distribute a one-page informational flyer about health concerns posed by blue-green algae. LCC held local community meetings when blooms occurred and conducted outreach efforts with local media outlets.



<b>NEIWPCC Code:</b>	L-2012-036
<b>Date Complete:</b>	8/29/2015
<b>Grant Amount:</b>	\$76,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$76,000.00

2011

# Technical Projects

## Burlington Waterfront Access North and Moran Redevelopment Projects Storm Water Management Improvements – High Performance Constructed Gravel Wetlands

### Project Summary

Although the Moran Redevelopment and Waterfront Access North projects are largely independent, they share common stormwater facilities and they are treated as one project in the following narrative. Stormwater design for the site focused on improving the water quality of discharges to the lake. Currently, no stormwater treatment practices exist throughout the majority of the project area. Site constraints are significant within the project area. Gravel wetlands were selected as the primary means of treatment for stormwater runoff from the site. These wetlands fit within the site constraints, and provide high levels of treatment. These gravel wetlands meet the intent of Burlington's CEDO and Public Works Departments to incorporate high performance stormwater treatment into City projects.

The stormwater treatment system designed for the project will emphasize runoff collection and treatment from road and parking areas for maximum benefit. Treatment will be provided by practices with high levels of demonstrated effectiveness and be set up to be accessible to the public.

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<b>NEIWPCC Code:</b>	L-2012-004
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$200,000.00
<b>Non-federal Match:</b>	\$200,000.00
<b>Total Amount:</b>	\$400,000.00

# Technical Projects

## 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.

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**Phone:**

**E-mail:**

**Website:**



**NEIWPCC Code:** 0100-306-014  
**Date Complete:** OPEN  
**Grant Amount:** \$200,000.00  
**Non-federal Match:**  
**Total Amount:** \$200,000.00

2012

# Technical Projects

## City of Plattsburgh Stormwater Conveyance System & Green Infrastructure Planning

### Project Summary

With increasing intense rainfall events, the ability of stormwater infrastructure in urban areas of the Basin to handle large volumes of water is frequently compromised. In an effort to fully understand how stormwater moves through the City of Plattsburgh's stormwater system and to identify potential problem areas, the City undertook an extensive mapping project that included identification and data collection for all stormwater trunklines. This information was then fed into a stormwater model developed by the US EPA that helped City staff identify parts of the city that are more vulnerable to flooding under increasingly intense rain storms. This allowed staff to rank and prioritize locations for installation of "green infrastructure" practices that allow rain water to be stored close to where it falls, then slowly filter into the ground, reducing flooding potential. LCBP funding also provided for a rain garden and swale system that will reduce runoff from the parking lot at the US Oval on the east side of Plattsburgh.

Available as LCBP Technical Report # 79.

**Organization:** City of Plattsburgh

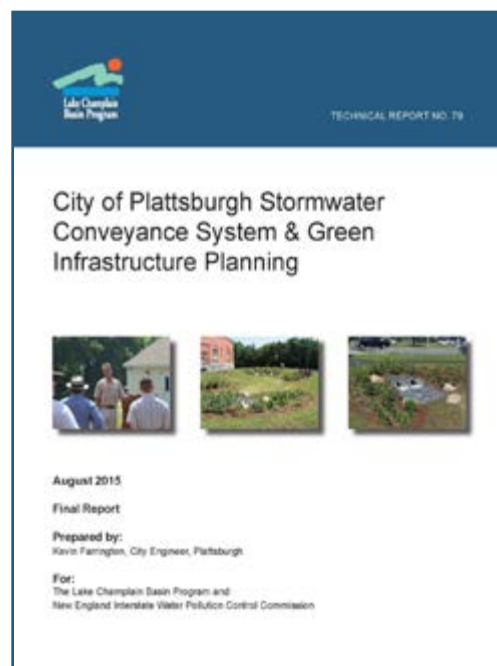
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<b>NEIWPCC Code:</b>	LS-2013-025
<b>Date Complete:</b>	08/11/15
<b>Grant Amount:</b>	\$200,000.00
<b>Non-federal Match:</b>	\$17,000.00
<b>Total Amount:</b>	\$200,000.00

2013

# Technical Projects

## Clinton County Multi-Farm Agriculture Assistance

### Project Summary

This project worked to assist a small, 60 cow dairy with their transition to becoming an organic dairy. As part of the transition, dairy cows need to be grazing, and that requires a watering system in the pastures. The farm received an approved grazing plan that detailed the need and placement of fence and waterlines. Our goal was to assist them with establishing those requirements of their plan. The District aided them with the placement of waterlines and drinking tubs to meet their goals for becoming an organic dairy.

A second deliverable for this project involved using the no-till seeder to implement permanent grass seedings on old pasture land and where annual crops had been growing in past seasons. Perennial seeding of grass went in according to NRCS recommended rates and the grass is now up and growing. These seedings on 96 acres will help with erosion potential from bare soils normally associated with annual crops through the non-growing season. We accomplished all this from July to September. All planned actions for these assistance projects have been completed.

The third deliverable was soil health education through evening meetings and providing visual aids and an on-the-farm format for soil health education. There were 6 farms participating in soil tests, manure tests and manure spreader weighing for proper nutrient application. These farms have approximately 100 animal units producing manure. One of the farms has no animal units but uses purchased manure for crop field fertilization. At that farm, the farmer gained valuable information on the cost of manure nutrients being imported onto the farm. A reduction in the amount and type of manure was made based on this information, saving the farmer much money and keeping excess nutrients off the fields.

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<b>NEIWPCC Code:</b>	L-2014-065
<b>Date Complete:</b>	12/22/2014
<b>Grant Amount:</b>	\$14,996.64
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$14,996.64

2014

# Technical Projects

## Development of Advanced Flood Recovery and River Management Training Modules

### Project Summary

This project developed advanced stand-alone training modules to further education, to improve flood recovery and reduce future risks. This project built on the documents and training that exist in the Lake Champlain Basin. Milone & MacBroom (Roy Schiff, Principal Investigator) and Fitzgerald Environmental Associates teamed for this project and prepared modules for the following seven practices:

- i. Floodplain restoration
- ii. Channel realignment
- iii. Natural bed and bank stabilization
- iv. Bench and chute restoration
- v. Grade control
- vi. Removal of sediment and debris
- vii. Bridge / culvert replacement

Milone & MacBroom anticipates creating modules that build on existing information and conducting two trainings that tie into existing training at Vermont Agency of Natural Resources, Vermont Agency of Transportation, New York Department of Transportation, New York State Department of Environmental Conservation, and Essex County Soil and Water Conservation District. Revisions will be made to the modules based on feedback from the project team and training session attendees to finalize the modules for future use. The modules will consist of complete lesson plan packets containing all components necessary for those with adequate technical expertise to teach the modules.

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<b>NEIWPCC Code:</b>	L-2015-027
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$71,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$71,000.00

2014

# Technical Projects

## Economic Benefits of AIS Prevention Programs

### Project Summary

Aquatic invasive species have the potential to impact the ecology of Lake Champlain and the Lake-based amenities that underpin the regional economic system. The challenges of managing the threats posed by aquatic invasives are not limited to mitigating the potential for economic disruption(s), but management alternatives will almost certainly be limited in scope by fiscal considerations. This project documented fifteen aquatic invasive species, classified Lake habitat for ten of these species and examined potential economic impacts resulting from an infestation for three of these species.

This project found that a majority of the Lake is well-suited for the New Zealand Mud Snail, and that nearly a quarter of the Lake is prime habitat for Eurasian Watermilfoil and Round Goby. More than a third of the Lake was found suitable for six of the ten species, if both moderate and high habitat classes were considered. The highest values of high habitat suitability were found at the interface of Missisquoi Bay and the Northeast Arm, St. Albans Bay, Burlington and Shelburne Bays and the northern portion of the South Lake segment. Although a majority of the Lake is found to have very low habitat suitability for most of the species, the fact that AIS are very adaptable means that it remains possible for them to gain a foothold within the Lake by adapting to the existing conditions.

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<b>NEIWPCC Code:</b>	L-2015-001
<b>Date Complete:</b>	9/23/2015
<b>Grant Amount:</b>	\$29,915.00
<b>Non-federal Match:</b>	\$ 3,337.00
<b>Total Amount:</b>	\$33,252.00

2012

# Technical Project

## Evaluating the Costs and Benefits of Floodplain Protection Activities in Waterbury, Vermont and Willsboro, New York, Lake Champlain Basin, U.S.A.

### Project Summary

This project evaluated the costs and benefits of floodplain protection in Waterbury, Vermont and Willsboro, New York in the Lake Champlain Basin, U.S.A. The primary elements of the project were ecosystem service valuation, buildout/conservation analysis, hydrologic calculations of current existing peak flows and predicted future peak flows, hydraulic modeling of floodplains, building damage simulations due to flooding, and a cost-benefit accounting to determine what form of flood risk reduction makes sound economic sense.

1. The benefits of floodplain protection outweigh the costs over the long term because a complete accounting includes high-value ecosystem services.

2. Floodplain protection reduces future flood damages, improves public safety, and enhances water quality because the most at risk parcels are not developed.

Available as LCBP Technical Report # 78.

**Organization:** Milone & MacBroom

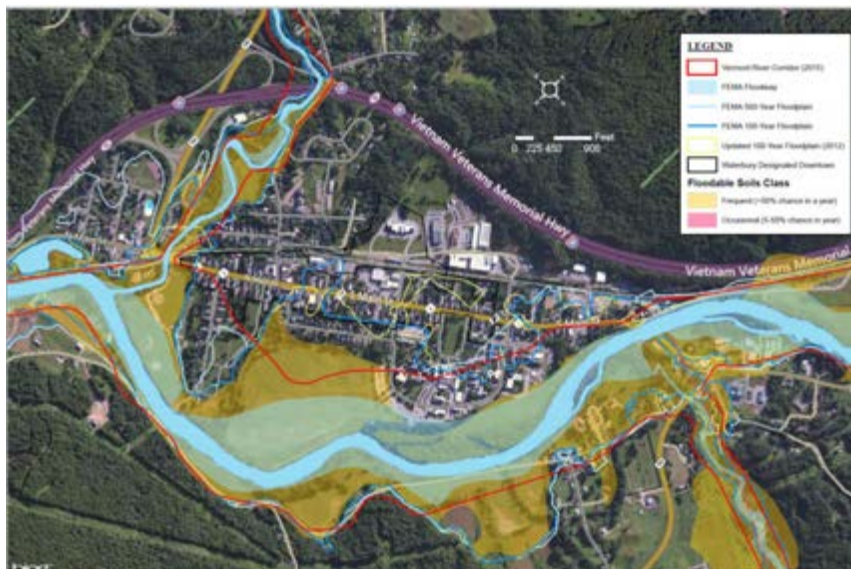
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**NEIWPCC Code:** L-2013-033  
**Date Complete:** 4/21/2015  
**Grant Amount:** \$100,000.00  
**Non-federal Match:**  
**Total Amount:** \$100,000.00

# 2013

## Technical Projects

### Influence of Controlled Drainage on Nutrient Loss from Tile-Drained Maize Fields in Northern New York: A Mass Balance Approach

#### Project Summary

Miner Institute received funding from the LCBP for purchase of equipment associated with this project to serve as non-federal match to meet NRCS edge of field program requirements.

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<b>NEIWPCC Code:</b>	L-2014-052
<b>Date Complete:</b>	4/30/2015
<b>Grant Amount:</b>	\$41,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$41,000.00

2013

# Technical Projects

## LCBP Mobile Website

### Project Summary

Taylor Design designed and developed a mobile version of the LCBP website. Using the content management system databases along with content and graphic assets from the desktop version of the website, TD provided for the first time a mobile presence for the LCBP. The site allows users of smart phones and other mobile devices to access to all the LCBP.org content, including access to information on lake conditions such as beach closures, algae blooms, and other water safety concerns.

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<b>NEIWPCC Code:</b>	L-2014-031
<b>Date Complete:</b>	
<b>Grant Amount:</b>	\$10,615.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$10,615.00

# Technical Projects

## Manzini Farm Watershed Protection & Water System Implementation

### Project Summary

Manzini Farm is a sheep and cattle operation in Chesterfield NY. The farm grazes animals with a rotational pasture management system. The goal of this project is to implement best management practices by providing an alternative water source on the farm that will facilitate livestock exclusion, thereby reducing phosphorus and sediments leaving the farm and entering the bordering tributaries to the Ausable River.

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<b>NEIWPCC Code:</b>	(none)
<b>Date Complete:</b>	CLOSED
<b>Grant Amount:</b>	\$7,500.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$7,500.00

2013

# Technical Projects

## Multi-Partner Agricultural Conservation Practice Tracking and Planning Database

### Project Summary

This project seeks to create a geospatial database that enables end users from multiple organizations to track and plan the implementation of agricultural conservation practices, also known as agricultural best management practices (BMPs), which are used to improve the water quality leaving agricultural land. The organizations involved include the Vermont Agency of Agriculture, Food and Markets (VAAFM); the Vermont Department of Environmental Conservation (VT DEC); the United States Department of Agriculture Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA); the United States Fish and Wildlife Service (USFWS); the Vermont Association of Conservation Districts (VACD); the University of Vermont Extension Service (UVM Ext.); and the Lake Champlain Basin Program (LCBP); hereafter known as the “Partners”.

This database will improve coordination, collaboration and common reporting among the Partners for BMP implementation activity on farms, allowing for the State of Vermont to more accurately assess past activity, more efficiently deliver technical assistance to farms, and more wisely set future BMP implementation goals. This is a 2 year pilot project which involves the initial database development, configuration and installation of the database, as well as end-user training.

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<b>NEIWPCC Code:</b>	L-2014-066
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$48,800.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$48,800.00

# Technical Projects

## NYS Emergency Stream Intervention

### Project Summary

The Project will use the New York State Emergency Stream Intervention training program that has recently been developed by the NYS Department of Environmental Conservation from the Delaware County SWCD program. The program will be presented to local Highway Department crews, contractors and agency staff working with them during emergency situations. The project will prepare and present a three day training program. There will be one day of classroom training with some field work to evaluate the project site. There will be a day on the construction site during project completion to see methods and techniques under construction. The final day of training will be a visit to the site to evaluate project implementation. The participants will receive certificates of completion and be placed in the NYS DEC database for later consideration in permitting and work during emergency situations and storm events.

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**NEIWPCC Code:** PO 10956  
**Date Complete:**  
**Grant Amount:** \$ 9,860.00  
**Non-federal Match:** \$11,420.00  
**Total Amount:** \$21,280.00

2013

# Technical Projects

## Riparian Restoration - Tree Guard Removal

### Project Summary

In 2014 the Intervale Center's Conservation Nursery removed 25,485 tree tubes from 14 past riparian restoration projects in Addison County and 1 in Rutland County, employing a crew of 4-5 people for 8 weeks. This translates to 2.01 tons of plastic tree tubes removed from the landscape. Through this successful project, we also developed and recorded strong baseline information about the tube removal process, such as time, cost and technique, which we can deploy and share with others who are working to remove plastics from our riparian zones.

Various types of tree guards are used in tree planting projects to protect young seedlings from the potentially deadly effects of meadow vole browse and stem girdling. The Riparian Monitoring Project, recently funded by the Basin Program, identified the need to remove tree tubes because we found that tree tubes were causing harm to otherwise vigorous young trees. In the past, tree planting projects did not include funding for follow-up maintenance and tube removal. Today, we continue to advocate that planners include removal costs to prevent the buildup of plastics in the landscape and to protect the long term health of trees.

Based on project records, 68,578 tubes were installed at the 15 projects where we worked. The Intervale crew was able to recover 25,485 of them, or 37% total recovery. On average the crew removed 42% of the tubes from any given site. The tubes that were installed and are now unaccounted for are either buried beneath the grasses, unseen by the crew or more likely washed away in flood waters. Most of these sites were within a floodplain, making the tubes on

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new young seedlings susceptible to being picked up by flood waters. As part of the crew's tube removal protocol, they conducted final walk-throughs at each site to ensure they were not missing tubes. In follow-up site assessment of the tube removal projects, Leah was able to verify the crew's thoroughness at each site.



<b>NEIWPCC Code:</b>	L-2014-002
<b>Date Complete:</b>	1/5/2015
<b>Grant Amount:</b>	\$40,800.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$40,800.00

# 2013

## Technical Projects

### Saw Mill Dam

#### Project Summary

This project consisted of outreach, design, and permitting assistance for removal of the Saw Mill Dam located on the Boquet River in Willsboro, New York. Project partners included the Lake Champlain Basin Program, U.S. Fish and Wildlife Service, the Greater Adirondack Resource Conservation and Development, Inc., Essex County Soil and Water Conservation District, and the Town of Willsboro.

The Saw Mill Dam was obsolete, structurally deteriorating, and blocking salmon migration out of Lake Champlain up the Boquet River. The dam also elevated local flood levels during high water (MMI, 2013). Photo-simulations that showed the dam removal were prepared and shared with the public during several meetings. The Town eventually voted to remove the dam. Design was completed, permits obtained and the project went out to bid for deconstruction.

The dam was successfully removed in September 2015.

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<b>NEIWPCC Code:</b>	LS-2014-059
<b>Date Complete:</b>	8/18/2015
<b>Grant Amount:</b>	\$43,900.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$43,900.00

2009

# Technical Projects

## Target Rock: Action Plans and BMP Implementation for Farms

### Project Summary

Nutrient loading from non-point source areas, particularly intensively managed agricultural lands continues to contribute significantly to phosphorus (P) and sediment entering streams and eventually Lake Champlain. Vermont's Agency of Natural Resources (ANR) and the Lake Champlain Basin Program (LCBP) identified the Rock River watershed as a contributor of one of the highest loads of phosphorus pollution per unit area in the Lake Champlain Basin.

Phase one of this project assisted farmers in identifying areas for reductions in agricultural nonpoint source nutrient pollution, specifically P, to a subwatershed of the Rock River and ultimately Lake Champlain. This subwatershed of the Rock River has been identified as a disproportionate contributor of phosphorus and sediment in the Lake Champlain Basin. The second phase of the project was to assist these farmers with implementing Best Management Practices (BMPs) that were outlined in the farm specific action plans developed in the first phase of this project.

Funding for the BMPs was available through the project however farmers were first encouraged to participate in the America's Great Outdoor (AGO) priority funding through the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentives Program (EQIP). The incentive rates for implementing BMPs were significantly higher than typical rates through EQIP. Farmers were then encouraged to implement BMPs with funds awarded for implementation through this grant and/or through other local initiatives.

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<b>NEIWPCC Code:</b>	L-2010-047
<b>Date Complete:</b>	OPEN
<b>Grant Amount:</b>	\$200,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$200,000.00

2012

# Technical Projects

## Technical Services for Aerial Cover Crop Seeding in the Lake Champlain Basin

### Project Summary

In 2013, the University of Vermont (UVM) Extension was awarded a grant to provide technical assistance to develop and implement an aerial cover crop seeding program in the Lake Champlain Basin. This project was developed in response to a continued need to implement new and innovative ways to successfully establish cover crops on corn silage fields in the Basin. The optimum fall planting date for cover crops are often not met by farmers for a variety of reasons. Aerial seeding a cover crop into a standing cash crop is a way to get a jump on the traditional winter cover crop season. The overall goals of this project were to develop an aerial seeding program for cover crops, secure farmer participation in the program, and to document successes and challenges with this new approach to cover cropping.

The University of Vermont Extension provided the logistical support between the technical service provider, financial and environmental stakeholders, and the individual farmers. Through the funds provided with this grant, and other funding sources, over 5000 acres were seeded in the Lake Champlain Basin. A total of 1500 acres were funded directly through this grant and another 3500 were funded through other sources, but the technical support and processes developed for this grant were leveraged on the other acres.

Based on the work on this project, aerial seeding is a logical option especially in the event that corn harvest will be delayed in the fall leading to late planting of cover crops. Seeding into the existing corn crop under proper conditions will likely lead to an adequate cover crop. Based on lessons garnered from this aerial seeding implementation project best practices can be

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developed to improve the likelihood of success when implanting this practice.



<b>NEIWPCC Code:</b>	L-2013-026
<b>Date Complete:</b>	10/3/2014
<b>Grant Amount:</b>	\$100,000.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$100,000.00

2013

# Technical Projects

## Washington & Essex County Aerial Cover Cropping on Corn Land

### Project Summary

The goal of this project was to establish winter cover crops on active crop lands to reduce soil and nutrient losses to tributaries to Lake Champlain. It has long been suspected that nutrients from farm fields that are left bare for the winter months may be lost through soil erosion and flooding of the land nearest the rivers. Farmers were contacted about the potential of an incentive to try an aerial application of cereal rye into standing crops. Farms that adjoined stream banks or had significant acreage with the potential of erosion were invited to participate.

The goals of this environmental incentive award meshed with the goals of the District to provide farms with a trial of using cover crops to retain soil and begin a soil health regime. Most of the farms receiving this award will continue the use of cover crops for the next 3 years with an additional incentive provided through the District's application of a Round 20 Non-Point Source award of funding. It is hoped that by encouraging these farms to try new practices or practices not economically feasible to support yet known to be of environmental benefit, other farms will follow suit and find an economic value to the practice that will sustain the use of cover cropping on farms with annual crops.

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<b>NEIWPCC Code:</b>	L-2014-060
<b>Date Complete:</b>	11/7/2014
<b>Grant Amount:</b>	\$38,172.00
<b>Non-federal Match:</b>	
<b>Total Amount:</b>	\$38,172.00



SECTION FIVE:

# EXTERNALLY MANAGED CONTRACTS

# Externally Managed Contract

## Expanding the Portable Skidder Bridge Initiative in the Lake Champlain Basin to Reduce Sedimentation from Logging Operations

### Project Summary

Sediment is the most common pollutant associated with timber harvesting. Bare ground exposed during harvesting operations can be eroded by rainwater and enter nearby streams causing sedimentation. Stream crossings used during harvesting have been a particular area of concern in eliminating discharges of sediment. Portable skidder bridges are designed and intended for use as temporary structures for crossing streams during logging. Portable skidder bridges are becoming widely viewed as a Best Management Practice for controlling nonpoint source pollution associated with timber harvesting operations. When properly installed, used, and removed, they create less stream bank and stream bed disturbance as compared to other alternatives such as culverts or poled fords. They are also economical since they are reusable, easy to install and can be transported from job to job.

The over-arching goal of this two-year project (2011-2013) was to promote and expand the use of portable skidder bridges throughout the Lake Champlain Basin (New York and Vermont) through education and outreach, technical assistance and program delivery. Two portable skidder bridge coordinators were hired; one for each state as a sub-contractor for the jurisdictional RC&D Council (Northern Vermont and Greater Adirondack) to perform services under separate sub-grant agreements. This grant project (1) extended the Vermont Portable Skidder Bridge Free Loan and Education Program; an incubator program designed to transfer technology, (2) provided technical assistance provided by the Vermont Coordinator to loggers participating in the Vermont Portable Skidder Bridge Rental Program; an element that's not provided with this program, and (3) started a Free Loan and Edu-

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cation Program serving the New York portion of the Lake Champlain Basin.

Through this grant project period thirty portable skidder bridges were made available for either free loan or rent. These bridges were staged at eleven sawmills and log yards located throughout the Lake Champlain Basin. The thirty portable skidder bridges available for free loan or rent were installed on sixty-two logging operations. Based upon data collected for the Free Loan and Education Program, projections were made for the Rental Program based upon the average number of acres accessed and timber volume harvested. From these projected values, it's estimated that the sixty-two bridge installations within the Lake Champlain Basin provided access to 2,666 acres and 15,376 cords. All various timber products produced were converted to cords for reporting purposes.



<b>NEIWPCC Code:</b>	
<b>Date Complete:</b>	6/1/2015
<b>Grant Amount:</b>	\$100,000.00
<b>Non-federal Match:</b>	\$ 33,000.00
<b>Total Amount:</b>	\$133,000.00

# Externally Managed Contract

## Lake Champlain Basin Agronomy Support and BMP Implementation

### Project Summary

Agronomy staff and implementation funding for this program has been in place since 2011 in Vermont and 2012 in New York. Over that time, agronomist assistance to farmers has increased BMP implementation on small farms to reduce export of soil and nutrients. The program is designed to address the need for direct outreach to small producers who receive less regulatory oversight, have limited on-farm labor to attend off-farm workshops and learn about water quality improvement resources and opportunities, and, because of their size of operation, have project needs that often are not as competitive for state and federal cost-share programs. The focus on the outreach effort is to inform producers about water quality resource concerns on their farms and help them access resources to address the concerns. Continued funding for this task maintains the single agronomist position in New York and contributes to 2.5 full-time agronomist positions in Vermont that are presently supported by the LCBP at locations selected by state agencies, to provide farmers with technical assistance with nutrient management planning and implementation of farm practices. This effort is intended to reduce export of soil and nutrients and improve water quality. Each agronomist is working with approximately 30 - 50 farmers each year, to increase implementation of water quality improvement practices and improve understanding and management of agricultural water quality issues.

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**NEIWPPCC Code:** N/A  
**Date Complete:**  
**Grant Amount:** LCBP \$1,175,000.00  
**Non-federal Match:**  
**Total Amount:** \$1,175,000.00

# Externally Managed Contract

## 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. Environmental indicators, monitoring stations, monitoring frequencies, and sampling procedures have been selected for this purpose. Also, statistical considerations were applied to optimize the design of the monitoring program. The project will maintain a database and serve as the basis for establishing water quality, biological community, and lake environmental health relationships. The project has been ongoing since 1990.

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**NEIWPCC Code:** 990-003-003  
**Date Complete:**  
**Grant Amount:** LTM-LCBP: \$504,151.00  
**Non-federal Match:**  
**Total Amount:** \$504,151.00

# Externally Managed Contract

## LiDAR data acquisition to support a GIS-based critical source area targeting procedure in the Otter Creek watershed

### Project Summary

This task supports the acquisition of high resolution LiDAR micro-topographic terrain surface and elevation data for agricultural areas of the Otter Creek watershed in Vermont. These data are needed to support a GIS-based analysis of critical sources of phosphorus contamination in the southern segments of the Lake Champlain Basin. The study to be supported with the LiDAR data, which is being conducted by the Vermont Agency of Agriculture, is designed to replicate some of the analyses recently developed in the northern part of the Lake Champlain Basin, the Missisquoi Bay Watershed, by the LCBP (2012).

The LCBP Missisquoi Bay watershed critical source area analysis (2012) involved a process-based watershed model (SWAT) with extensive geospatial data and computational requirements that are difficult and expensive to duplicate in other watersheds across the Lake Champlain Basin. However, that study also included an evaluation of a simpler "GIS-based" approach that considered key critical source factors such as soil characteristics, slope, proximity to water, and land use, to produce a relative index of risk at each site without running a process-based watershed model.

The results of the GIS-based approach were moderately well correlated with the results of the SWAT model, particularly on sites with agricultural land use. These findings indicated that a GIS-based approach would be a practical alternative for critical source area targeting in other watersheds. The Vermont Agency of Agriculture recently received a USDA National Conservation Innovation Grant that includes \$100,000 for a GIS-based critical source area analysis

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for the Otter Creek watershed in Vermont. The scope of that grant does not include acquisition of LiDAR data, which are needed for accurate, high-resolution topographic information to support the analysis.



Lake Champlain  
Basin Program

**NEIWPCC Code**

**Date Complete:** OPEN

**Grant Amount:** \$120,000.00

**Non-federal Match:** \$ 39,600.00

**Total Amount:** \$159,600.00

# Externally Managed Contract

## Maintaining monitoring of concentrations and wet and dry deposition of atmospheric mercury at Underhill, Vermont: 2013 – 2016

### Project Summary

Mercury transport and deposition are of particular importance to the Northeast region. This project continued the ongoing monitoring of mercury concentrations in the air and precipitation and their wet and dry deposition fluxes to the environment at Underhill Center, Vermont (Lat: 44.5283; Long: -72.8684). These long-term measurements have been and will continue to be critical to evaluate long-term deposition trends and to identify key mercury pollution sources and regions of origin. Meeting these objectives will further our understanding of the effects that atmospheric mercury deposition is having on the environment of Vermont and the Northeast, and will help develop the most effective strategies to reduce these effects.

The specific objective of this project was to collect and analyze precipitation and air samples collected at the long-time atmospheric monitoring site (VT99), located at Underhill Center, for total mercury concentration and to estimate mercury deposition. All precipitation samples and supporting data (including precipitation amounts from NWS- and network-approved rain gauges) were collected and precipitation samples have been analyzed at the NADP's mercury analytical laboratory in Bothell, Washington. Air samples were analyzed onsite using a Tekran elemental analyzer and accessories (Tekran 2537A elemental mercury analyzer equipped with both an 1130 denuder (GOM) and 1135 regenerable particulate mercury filter).

Sixty-six weekly precipitation samples were collected between October 29, 2013 and December 31, 2014 under the NADP/MDN national network, of which 58 yielded adequate sample volume of a proper quality to determine total mercury concentration and es-

timate deposition. Sixty-one weeks of mercury dry (particulate-bound, gaseous oxidized and gaseous elemental) concentration data were collected under the NADP/AMNet national network. Data for all samples collected throughout the collection period have undergone all QA/QC and data verification procedures as outlined in our approved QAPP and are now available on the NADP website at: MDN: <http://nadp.sws.uiuc.edu/sites/siteinfo.asp?id=VT99&net=MDN>; AMNet: <http://nadp.sws.uiuc.edu/amn/data.aspx>.



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**NEIWPCC Code:**

**Date Complete:** OPEN

**Grant Amount:** \$26,000.00

**Non-federal Match:** \$52,000.00

**Total Amount:** \$78,000.00

# Externally Managed Contract

## Water Chestnut Management Partnership – Lake Champlain Basin

### Project Summary

VTDEC, TNC and MNWR continued a partnership to manage and prevent further spread of water chestnut in Lake Champlain and other Basin water bodies.

The VTDEC continued a north-to-south Lake Champlain and adjoining tributaries water chestnut management element, collaborating from NYSDEC and the town of Dresden, NY for control support in the Dresden region on both sides of the lake. A second VTDEC element that manages water chestnut in other Basin water bodies in VT also continued. These efforts involved only the use of hand pulling to remove water chestnut in 2015; other funding sources were used for mechanical harvesting and other aspects of the management program.

TNC continued to manage water chestnut primarily in wetlands of the Southern Lake Champlain Valley that are inaccessible to mechanical control, with a priority of managing water chestnut on TNC lands.

MNWR staff working in partnership with The Friends of the Missisquoi National Wildlife Refuge continued to control and search for water chestnut on lands owned by the Refuge and in other areas of Missisquoi Bay. As of 2014, nine water chestnut sites were known within the Refuge or Missisquoi Bay.

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<b>NEIWPCC Code:</b>	OPEN
<b>Date Complete:</b>	
<b>Grant Amount:</b>	\$ 75,000.00
<b>Non-federal Match:</b>	\$ 33,000.00
<b>Total Amount:</b>	\$108,000.00