

**Proposal Submitted for Subcontracts Program to Deliver Scope of Work
for the**

**FL-PRISM Finger Lakes Partnership for Regional Invasive Species Management
(FL-PRISM)**

A. Cover Sheet

Project Title

*Recruiting & Training Volunteers for Invasives I.D. Mapping: Responding to the
Double Threat of Hydrilla and Hemlock Woolly Adelgid on Cayuga Lake*

Project Leader

Hilary Lambert, Steward/Executive Director Cayuga Lake Watershed Network
POB 348 Aurora NY 13026
(859) 421-369 steward@cayugalake.org
www.cayugalake.org

Collaborator

Bill Foster, Director, Cayuga Lake Floating Classroom
669 West King Rd. Danby NY 14850
(607) 216-2238 floatingclassroom@gmail.com
www.floatingclassroom.net

Amount requested: \$6000.00

B. Proposal Description

1. Project summary: Introduction, focus and goals, nature of collaboration, and significance to the mission of the FL-PRISM, background information about Hydrilla and Hemlock Woolly Adelgid

Introduction

The Cayuga Lake Watershed Network (“Network”) and the Cayuga Lake Floating Classroom (“Floating Classroom”) are joining forces to get out in front of two invasives, Hydrilla (*Hydrilla verticillata*) and Hemlock Woolly Adelgid (*Adelges tsugae*; ‘HWA’) whose combined medium- to long-term impacts could bring about lasting negative changes to water quality, habitat and ecosystems – of both Cayuga Lake and the creeks that feed it.

Volunteers – trained non-experts – are essential for success in managing and mitigating invasives in this emerging era of rapid climate change, at the same time that public agency budgets are being slashed for personnel, monitoring, data collection and mapping.

This project combines the ongoing creek and lakeshore-focused work of the Network with the Floating Classroom’s lake cruises offering hands-on invasives identification and monitoring to the public. Having recruited volunteers around the lake during the summer months to look for hydrilla, we can build on their willingness to help during the winter months in documenting HWA occurrence. HWA work is a natural match for Hydrilla/aquatic plant work because the survey work occurs at different times of year, keeping volunteers involved year-round.

Focus and Goals

The project will **focus on** recruiting, training and retaining volunteers to identify these species, monitor for them along creeks, shoreline and on the lake, promptly report findings, and submit mappable data via the Finger Lakes Institute’s citizen science portal.

The project’s **short-term goal** is to build on the high-energy start during summer 2014 to recruit local residents who are willing and able to help identify and locate invasives and report them. An estimated 60-70 new sets of eyes along the lake have been recruited via Floating Classroom hydrilla i.d. training cruises and Network outreach and followup using email messages and mailed Hydrilla I.D. Kits, recruiting hydrilla hunters lakewide.

The **medium-term goal** is to recruit, from this new pool, volunteers to monitor for the Hemlock Woolly Adelgid during the 2014-5 winter months. Reports by residents of the spread of HWA around Cayuga Lake just in the past six months suggests that a widespread mapping and treatment project is needed if creeks are to be protected. This process is under way at the south end of Cayuga Lake, thanks to cooperative work between Cornell, Town of Ithaca, the Network and community volunteers. This collaboration needs to be extended into Seneca and Cayuga counties around the lake.

The **longer-term goals** beyond the end of this grant period are:

- Develop a long-term group of dedicated volunteers and foster a culture of volunteerism for lake and watershed protection in the face of climate change.
- Develop a set of tools and strategies for invasives control that can be used at other locations and for new threats as they emerge.
- Prevent, mitigate and reduce impacts of invasives to our creeks and lake.

Nature of collaboration between the Network and Floating Classroom

The Network and Floating Classroom are joining forces to combat Hydrilla on the lake, and Hemlock Woolly Adelgid on the forested shoreline and watershed creeks. Last winter, volunteers in Tompkins County were trained to find HWA and map it using hand-held GPS receivers. The spring and summer focus has been on fostering Hydrilla Hunters, local residents and lakeside property owners and visitors who are trained to identify and report hydrilla. Trainings have been provided in Tompkins County at the south end of the lake since 2010. Clean boating practices are also promoted. However, in spring 2014 an agency staffer from the north end of the lake reported little hydrilla awareness or concern there.

In response, during the summer of 2014, the Network and Floating Classroom teamed up to recruit hydrilla hunters and provide Hydrilla I.D. cruises to communities along the lake shoreline in Seneca and Cayuga counties. Volunteers in Lansing on the southeast shore, and along the western shoreline in Ithaca and Ulysses, augmented this outreach. Expanding this program around the lake may prevent this pest from engulfing the lakeshore and shallow north end, and from re-infesting the south end. If new infestations of hydrilla can be found early by Hydrilla Hunters, chemical controls can be minimized.

These new volunteers and raised public awareness provide an opportunity to educate about HWA, train volunteers to spot it on hemlock tree branches, and to establish wintertime monitoring and mapping for HWA along the shore and creeks that feed the lake. Using methods developed by the Ithaca urban forester and community partners in 2014, we will focus on volunteers will focus our volunteer base on mapping HWA populations along Seneca and Cayuga county creeks and in lakeshore woodlands during the winter months from mid-November 2014 to mid-February 2015.

Significance to the mission of the FL-PRISM

This proposed project will endeavor to “reduce the spread and impact of” two known “invasive species within the Finger Lakes PRISM region” by educating and training members of the public through “coordinated education, detection” measures, in cooperation with experts and agencies.

2. Scope of work: Floating Classroom and Network

A. The Floating Classroom seeks funding to complete the following tasks, in collaboration with the Network, and perhaps the Finger Lakes Institute.

Additional fall Hydrilla/invasives training cruises & active surveying

The Floating Classroom will return to the north end of the lake to both provide training opportunities and work with volunteers to initiate a longer-term survey project in frequently-used waters off either Aurora or Cayuga villages. The Floating Classroom staff will work with local volunteers to establish a survey route, to be completed annually, that will support the creation of an aquatic plant community map for the area, verification of the presence/absence of Hydrilla, and eventually, the presence/absence of other invasive species such as *Nitellopsis obtusa*, bloody red shrimp and the round goby. We will commit three hours of boat-time to sampling that route.

In Aurora, we would work with Wells College student volunteer groups. 12 students have already completed training and have expressed interest in spearheading an annual lake plant survey. In Cayuga, we would work with volunteers who attended our Sept. 8 training cruise from Beacon Bay Marina, as well as other individuals in the area.

Two fall training cruises: Sheldrake Winery cruise (late September/early October): This free public hydrilla and aquatic species training cruise from Sheldrake Point Winery will present

serve the west side of the lake, including the Towns of Varick, Ulysses, Ovid, and Romulus, and will be funded by Sheldrake Point Winery. Publicity support by the Network. Public cruise from Ithaca: The FC will devote one Sunday afternoon cruise to educating the public on Hydrilla, and competing survey work at Bolton (Poison Ivy) Point.

The Network will support these cruises via publicity; emailing to town and village leaders; mailed Hydrilla I.D. Kits to all cruise participants. Present Network members and supporters will be informed about these projects, along with lake residents on Seneca Lake (to the west) and Owasco Lake (to the east).

Additional data and evaluation tasks for fall 2014

Finish ID sheets and post online, and make laminated hard copies; Evaluate 2014 program and make recommendations for 2015: Training cruise format, potential improvements; Addressing other aquatic-invasive issues - Gobies, Blue-Green algae, Bloody Red shrimp, Asian clam; Plan for student groups at Wells (FORCES) and Sea Scouts (Gene Little) in 2015; Quality of data. The Floating Classroom and Network will collaborate with the Finger Lakes Institute on completion of model data-entry and viewing forms for aquatic plants on their online portal.

End-of-season volunteer thank you event: As in the past two years, the Network, Floating Classroom and Hydrilla Task Force outreach partners will provide volunteer thank-you meetings/updates at both the south and north ends of the lake during October and November. These are informational and celebratory events, free to the public.

B.The Cayuga Lake Watershed Network will work with the Floating Classroom on the final tasks of the hydrilla education season as described above, while ramping up its wintertime HWA campaign, as follows:

- Develop a Hemlock Woolly Adelgid I.D. Kit on the model of the Hydrilla I.D. Kit.
- Share information about why HWA needs to be mapped and managed widely via media releases, newsletter articles, emails to previously recruited volunteers, and town and village officials watershed-wide.
- Provide information about the coming HWA detection and mapping winter season during Hydrilla cruises and volunteer events.
- Offer two winter training events in January and early February 2015 in Seneca and Cayuga counties. To include identification and mapping using hand-held GPS units with topo maps and checklist, and approved options for management of HWA spread and impacts.
- Develop a volunteer-collected HWA database for sites along the lake in Seneca and Cayuga counties, focusing on creeks and lakeshore, for the Finger Lakes Institute's citizen science portal.

3. Reporting:

The Network/Floating Classroom will provide an initial report to FL PRISM 30 days after commencing the project, with a final report due February 28th, 2015. Additionally, we will be reporting on this project via the Network's newsletter; Website; listserv announcements, posts to both the Network and Floating Classroom Facebook pages; and press reports to area media, along with announcements of cruises and HWA training and monitoring sessions.

4. Timeline:

All work will be completed by November 7, 2014 for the Floating Classroom Hydrilla elements. All work will be completed by February 15, 2015 for the Network HWA elements.

Month/Year	Floating Classroom	Cayuga Lake Watershed Network
September /14	One cruise, work with Aurora and Cayuga.	Assist and support FC Hydrilla cruises. Develop HWA I.D. Kit.
October /14	Two cruises, work with west shore communities and Ithaca area. Submit first report to FL-PRISM with CLWN.	Assist and support FC Hydrilla cruises. Develop and promote HWA impact and management info. Submit first report to FL-PRISM.
November /14	Data assessment, other post season tasks. Help with volunteer events in Nov. (s. end of lake) and early December (n. end of lake).	Provide info to public, towns and villages re two upcoming HWA winter events, begin attendance list. Promote, manage Hydrilla vols events.
December /14	Assessment, develop program for 2015.	Early Dec. date for n. end Hydrilla vols events. Recruit for HWA events.
January /15	Help promote HWA events with volunteers and local contacts.	Hold two north end HWA training and mapping events (weather dependent!). Publicity.
February /15	Submit final report to FL-PRISM with CLWN.	Second n end training event; submit final report to FL-PRISM.

5. Project location: Cayuga Lake watershed, with information shared with adjoining lakes and across the region.

6. Personnel and Partners/Collaborators

Project Director:

Dr. Hilary Lambert, Steward/Executive Director Cayuga Lake Watershed Network
 POB 348 Aurora NY 13026
 (859) 421-369 steward@cayugalake.org

The CLWN’s Steward/Executive Director, Dr. Hilary Lambert, will co-lead this project with Bill Foster. She has many years of experience as an environmental campaign organizer and community and college educator, with the CLWN, Kentucky Waterways Alliance, and other organizations and teaching institutions. Her Ph.D. is in geography/water resource use.

Collaborator:

Bill Foster, Director, Cayuga Lake Floating Classroom. Mr. Foster will act as project manager for the Floating Classroom. He holds a BS in Environmental Engineering (Cornell University, 1987), and brings to the project over 25 years of experience in water resource engineering, project management and environmental education. Mr. Foster has youth education and outreach experience in both urban and rural settings, including Philadelphia, New York City and the Catskills region. Mr. Foster has also worked with the Cayuga Lake Watershed Network and held the position of Education Program Curator with the Cayuga Nature Center between 2006 and 2008.

7. Budget and Justification

We are requesting \$6000.00 for this project, with \$3000.00 allocated to the Floating Classroom and \$3000.00 to the Cayuga Lake Watershed Network, as follows:

Floating Classroom personnel, materials, travel:

Labor costs: \$2000.00. 60 hours at \$25/hr plus \$5/hour fringe benefits. Sophia D'Addorio, staff, with support from Bill Foster.

Expendable Supplies: \$250.00. Poster materials, specimen containers, laminations for Plant ID sheets.

Travel: \$200.00 for 360 miles, at \$0.56 per mile.

Indirect costs: \$100.00 (5%).

Toward the cost of one free public training cruise: \$450.00

\$3000.00 subtotal

Cayuga Lake Watershed Network personnel, materials, travel:

Labor costs: \$2600.00. 0.042 FTE plus 30% fringe benefits, for Hilary Lambert. Fringe includes state and federal taxes; health insurance.

Indirect costs: \$100.00 (5%).

Expendable supplies: \$150.00 refreshments, room fees for two north-end HWA winter meetings.

Travel: \$150.00 for 270 miles at \$0.56 per mile.

\$3000.00 subtotal

=====

\$6000.00 Total requested