

Contract C303601 Schedule 1: Scope of Work

1. Introduction

Title: Eagle Lake Eurasian Water Milfoil Eradication Project

Objective of Project: To eradicate milfoil from Eagle Lake using an integrated approach. These approaches will primarily use the methods of hand harvesting, and matting and secondarily provide a test bed for localized spot control of large dense patches with the herbicide Renovate, if appropriate permits can be secured. Conduct follow-up monitoring, with touch-up hand harvesting/matting as necessary, of treatment site(s) to track and ensure the success of the eradication methods used.

Project Duration: November 2007 through December 2010

Project Leader

Town of Crown Point
Dale French, Town Supervisor
17 Monitor Bay Road Suite 3
Crown Point, NY 12928

With Assistance of:

Eagle Lake Property Owners Inc.
Rolf Tiedemann, Vice President
358 Electric Ave.
Rochester, NY 14613

2. Project Narrative/Description Of Work Plan:

Eagle Lake is located in the southern portion of Essex County on NYS Route 74, east of the Northway (I87) and West of the Village of Ticonderoga. It has waters situated in two Towns, Ticonderoga (Ti) and Crown Point (CP). Its surface area is approximately 420 acres and is divided by route 74 into a larger, 340-acre eastern and an 80-acre western section. Eagle Lake has a mean depth of 19 feet and a maximum depth of 42 feet. The majority of shoreline around the lake remains in a natural state with a very limited amount of grass lawns or other landscaping. A NYS DEC owned public use boat launch provides access on the western end and a NYS DEC day use beach with unimproved camping/ picnic area is on the northeastern shore. Eurasian Water milfoil was first identified in Eagle Lake in the late seventies with official documentation and distribution being completed in 1987 by the Darrin Fresh Water Institute. Various attempts at control of its spread over the years had been explored but for reasons of lack of funding or adequate outside support little more than localized hand harvesting was completed. Eagle Lake now supports more than 12 acres of milfoil distributed around the shoreline with several large, 1 acre plus, mid lake dense monoculture beds.

The Towns of CP and Ti with assistance of the Eagle Lake Property Owners, Inc. (ELPOI) will undertake a project starting in 2008 to control shoreline and shoal patch instances of milfoil growth on Eagle Lake. Professional divers, educated in aquatic plant identification, will swim these areas and utilize hand harvesting to eradicate isolated

plants and matting to smother small to mid sized patches of milfoil. While divers remove the plants by digging up the root ball volunteer lake residents will collect plant fragments that float to the surface. A local lake resident has agreed to accept, in a secure area, removed milfoil for composting. In areas where matting is used to smother the plants, touch up hand harvesting will take place as necessary. Once the milfoil is smothered these mats will be relocated to other areas. The towns with assistance of the ELPOI will seek cooperation from the DEC, APA and other interested parties for securing the appropriate permits for the utilization of the herbicide Renovate to provide eradication of the largest dense beds. Allied Biological has been contracted to provide professional services related to securing permits and completing necessary herbicide use plant surveys. Pending permit approval a licensed applicator will be retained to treat several of largest dense milfoil beds. GPS waypoints and underwater video for work locations will be gathered for both the hand removal, matting and herbicide treatment sites. This information will be used as a guide to allow for post treatment follow-up surveys and possible additional hand harvesting assuring that invasive plants do not return.

This is a 3-year project. The spring of 2008 will be used for planning of the entire project with emphasis on hand harvesting, matting and the completion and submission of herbicide permit documents. Summer of 2008 will be spent; with divers working their way around the lakes shoreline harvesting milfoil, completing necessary pre herbicide treatment plant survey and continuing the permitting process. Spring of 2009 will, pending permit approval, be the time for planning an early summer 2009 herbicide treatment of select sites. Monitoring of these sites along with continued hand harvesting and matting would take place in the summer of 2009. The final summer will be spent completing follow-up surveys of work sites, completing hand harvesting and matting as necessary, completing follow-up plant surveys as necessary and gathering final data for drafting and submission of final report. As part of this project the members of the ELPOI will continue to provide out-reach education to transient and riparian lake users as to how to prevent and control the spread of this and other invasives.

Note: Total success of this project is dependent on the ability to utilize all of the tools available to control milfoil including herbicides. If an herbicide use permit is not granted the project will go forward utilizing hand harvesting and matting but the extent of eradication will be minimized.

3. Schedule Of Work:

Note: all references to the use of an herbicide are pending the successful completion of obtaining a permit for its use. If permits cannot be obtained additional time will be put into mechanical harvesting, but the overall success of the project will be compromised

Work Element	Dates	Description
1. Plan for: general project, hand harvest/ matting, permit submission	Winter 2008	Meet with ELPOI Board Members to formalize planning for all phases of work necessary for a summer 2008 start. Coordinate plans with both Towns. Plan manpower and materials needs for hand harvesting and matting.
2. Develop and implement process to: track expenses, income and progress reporting	Winter 2008 to 2010	Work with ELPOI Board and CP to set-up methods and process for tracking, expenses and disbursements, volunteer labor, cash and in-kind donations, Set up a process to complete necessary progress reports. Designate person(s) to handle the implementation of this task.
3. Prepare permit documents and present / review at pre-submission review meeting	Winter/ summer 2008	Contract with Allied Biological to have the necessary DEC and APA permit application documents completed. Set-up a pre-submission permit review meeting with interested members in the DEC, APA etc.
4. Coordinate/plan needs for hiring dives	Winter/ spring 2008	Make formal contract arrangements with company that will hire divers and project coordinator. Make commitment consistent with available funds.
5. Gather materials and assemble mats, procure diver support equipment	Winter/ spring 2008	Purchase/arrange for donation of mat material, purchase mat weight material, assemble mat material and weighs. Complete construction of work/dive platform, work with diver company to determine and purchase special dive support equipment.
6. Funds	Winter /spring 2008-2010	Work with members of the ELPOI to coordinate the collection of their cash and volunteer labor pledges to this project. Work with NYS Senate and DEC staff to coordinate disbursements for current Senate Initiative Grants. Seek additional funding where and when available
7. Coordinate volunteer involvement.	Spring / summer2008 -2010	Schedule and train volunteers to assemble mats, to work with divers as surface laborers, and to complete hand harvesting/ matting in front of their own properties, provide out-reach education to lake users about the project
8. Conduct hand harvest/ matting operations	Summers 2008 - 2010	Direct contracted dive team to complete hand harvesting and mat placement/ removal/ redeployment along the shores of the lake. Surface volunteers will support the divers by collecting fragments and moving bagged biomass to designated compost site. Obtain additional vol. help as needed.
9. Plant survey /continue herbicide permit application process	Summer/ fall 2008	Hire Allied Biological to complete pre herbicide application plant survey as necessary (possibly at a Tier III level), continue to work with DEC, APA and others to secure permits necessary for herbicide application
10. Education	2008 -2010	Provide timely information and updates to riparian lake property owners and visiting lake users by newsletters and signage about current and future phase of the project. Gather feedback from interested parties (above) about the project.

11. Provide notification as required for herbicide use	Fall 2008	Continue work with permitting agencies for providing need for and timing of events. Determine appropriate message, responsible party(s) to deliver, and delivery methods to get message out on herbicide use.
12. Review	Fall 2008 –2010	Review the past few months' process, make notes of successes and failures, and apply to future work. Provide feedback to interested parties.
13. Plan 2009 work schedule	Winter 2009	Similar to 1, 4 & 5 above, but specific to new areas and revisits of previously worked areas.
14. Hire company for 2009	Winter/ spring 2009	See 4 above; evaluate relationship with firm from past year and contract for 2009 effort.
15. Coordinate plans for herbicide application	Spring 2009	Hire applicator, obtain herbicide, obtain containment curtains if needed, prepare/distribute any necessary lake use restriction notifications
16. Implement 2009 hand harvest/ matting and herbicide control methods	Summer 2009	See 8 above, also coordinate possible placement/removal of curtains and herbicide application(s), complete immunoassay monitoring, and complete additional yet to be determined herbicide treatment steps
17. Review	Fall 2009- 2010	See 12 above
18. Plan, coordinate and implement 2010 hand harvest/ matting/ and possible additional herbicide eradication	Winter, spring, summer 2010	See appropriate numbers above
19. Complete necessary/ required follow up surveys	Summer, fall 2010	Complete GPS and underwater camera survey to map areas successfully worked and to map areas not addressed in project. Complete any required follow-up plant surveys. Complete follow-up surveys with ELPOI members to assess their perception of the projects success.
20. Gather necessary data and draft final report	Fall, winter 2010	Review results of project to eradicate milfoil in Eagle Lake. Prepare, edit and submit final report to interested parties
21. Develop future plans.	Summer 2010– spring 2011	Work with ELPOI members and other interested parties on the ongoing issues related to invasive species control and eradication and maintenance after removal.

Contract C303601 Schedule 2: Project Budget

1. Personal Service Expenditures (PS)				
Expenditure Class	Total Item Cost	Applicant Funds		State Funds
		Volunteer Labor Value in-kind donation value	Applicant Cash	Eradication Grant Funds
A. Professional/ Consultant/ Legal/ Services and paid staff support				
	\$ -			
	\$ -			
B. Professional/ Consultant/ Legal/ Services Fringe				
	\$ -			
	\$ -			
C. Volunteer Services				
Lake resident volunteer labor, town(s) personal services for administration and processing	\$ 5,923.00	\$ 5,923.00		
	\$ -			
D. Total Personal Services (PS) (sum 1A+1B+1C)	\$ 5,923.00	\$ 5,923.00	\$ -	\$ -

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2. Non-Personal Service Expenditures (NPS)				
Expenditure Class	Total Item Cost	Applicant Funds		State Funds
		Volunteer Labor Value or in-kind donation value	Applicant Cash	Eradication Grant Funds
A. Supplies and Materials				
Mill wire donated by ELPOI for benthic mat**	\$ 2,500.00	\$ 2,500.00		
Mill wire donated by International Paper for benthic mat	\$ 2,000.00	\$ 2,000.00		
Benthic mat material, fuel, consumables related to hand harvest and matting, such as dive gloves and boots, compressor repair	\$ 7,070.00		\$ 1,570.00	\$ 5,500.00
Office supplies, telephone, education/ notification materials	\$ 1,825.00		\$ 1,825.00	
B. Equipment				
Hooka air compressor, Collection bags, hand harvest tools, buoy signs, work platform*	\$ 6,721.00	\$ 6,191.00	\$ 530.00	
Milfoil mapping and survey equipment: GPS, Under water video camera system**	\$ 409.00	\$ 409.00		
Diver equipment	\$ 500.00		\$ 500.00	
C. Travel Related Expenses				
Fuel and tolls related to travel for completion of milfoil removal of project	\$ 700.00		\$ 700.00	
D. Contractual Service				
Contract services for milfoil eradication by hand pulling, mating and herbicide treatment. Costs include but not limited to: services for divers, surface support help, project management, legal council, and administrative and survey reporting, completion of permit applications, assay testing, pre/post surveys, herbicide application and required follow-up surveys and reports, and community notification	\$ 73,552.00		\$ 27,052.00	\$ 46,500.00
Contractual services for water testing, CSLAP testing, liability insurance, GPS report, final project report, lake plant survey	\$ 8,800.00		\$ 5,800.00	\$ 3,000.00
E. Total Non Personal Services (NPS)	\$ 104,077.00	\$ 11,100.00	\$ 37,977.00	\$ 55,000.00
F. Total Personal Services (Line 1D)	\$ 5,923.00	\$ 5,923.00	\$ -	\$ -
Total Cost (2E+2F) for Hand Harvesting, Matting and herbicide treatment	\$ 110,000.00	\$ 17,023.00	\$ 37,977.00	\$ 55,000.00

* Crown Point donated physical asset

** ELPOI donated physical asset