

Part A
Annual Priority Grant Application Summary

Project Name: Continuation of the multi-year Eurasian Watermilfoil (*Myriophyllum spicatum*) control project on Lake Colby.

Applicant: Lake Colby Association (see www.lakecolby.org and www.lcbp.org/watersheds/lcolby.htm). Fed ID 75-3074896; DLN: 102016009; APA Permit 2002-71

Project category: Annual Priority Grant

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Eligibility: 2005 LCBP grant, Project Code L-2005-014, NEIWPC Job Code: 0981-003-001 was completed in accord with the contract. The LCA is a registered IRS 501(c) and New York 102(a)5 tax exempt organization. Our cooperative partnerships with the Town of Harriestown and the D.E.C. will continue during the 2006 season.

Grant request: \$7,000

Organization purpose: The Lake Colby Association (LCA) is a volunteer not-for-profit organization dedicated to water quality and quality of life issues on Lake Colby.

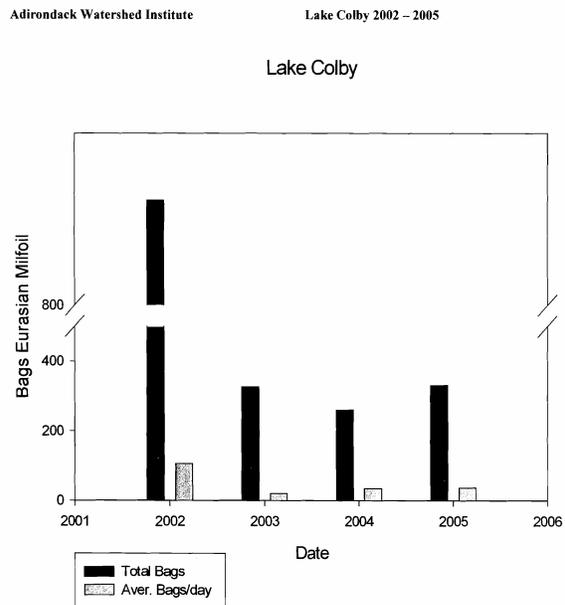
Project Summary: Since the project's inception in 2002, the LCA and its partners have made major progress in reducing the impact of Eurasian Watermilfoil on Lake Colby, a key demonstration project for the Adirondacks and beyond. Our project techniques have been adopted (and improved upon) by other lakes, including Upper Saranac Lake. At the end of the project's activities in 2005 most, but not all, of the multi-stemmed watermilfoil had been eliminated from the Lake. Our goal for 2006 is to eliminate all remaining multi-stemmed plants and many more single-stemmed clusters, allowing us to seek a steady maintenance state by 2007.

The 2006 plan involves re-setting the benthic barriers and a complete hand harvesting of remaining multi-stemmed plants and clusters (mostly in North Bay). Our hope is that by August 2006 we will have enough data to construct a final program to enter maintenance status at minimal continuing expenditure levels.

Deliverable: Although the discovery of two new major beds set us back in 2005, we nonetheless made significant progress and demonstrated several new control strategies. In the very near future we expect to be able to definitively demonstrate that mechanical control measures can work to control Eurasian Watermilfoil on lakes of less than 300 acres, at reasonable cost.

Application Questions (Part B)

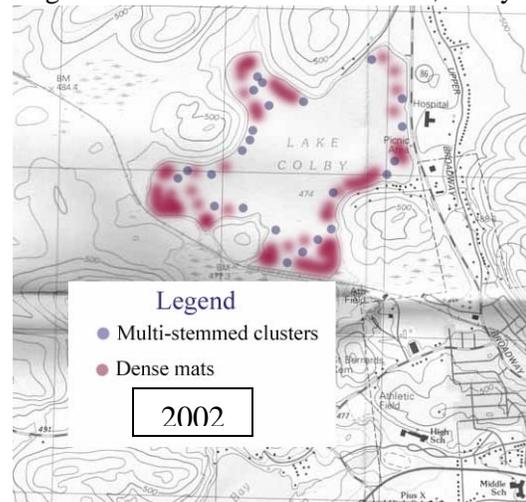
- Need.** We had hoped that 2005 would start the final stage of a multi-year project begun in 2002. We began the project with member funds in 2002 because our expert advisors (Adirondack Ecologists and the Adirondack Watershed Institute) and the 2001 CSLAP survey told us that if the milfoil spread was not stopped immediately conventional control means would no longer be an option. This dire forecast proved optimistic – the Lake had been nearly taken over by Eurasian Milfoil when our 2002 harvesting program began. Despite this, aggressive efforts in 2002 removed over ten tons of milfoil and killed an additional 4,000 square feet through the use of barriers. At the end of 2003 we had reduced the milfoil by an additional five tons. In 2004 we removed three and a half additional tons, mostly from a virulent re-growth in an area picked clean in 2003, a pattern we have seen repetitively. In 2005 we discovered two additional beds that consumed much of our effort and yielded four additional tons. We are now confident (thanks to a full survey) that there are no remaining major beds, although there are many clusters of single and multi-stemmed plants yet to remove and a second picking of the beds, removed this year will be required in 2006. We are clearly gaining, and think our goal of eliminating all of the remaining multi-stemmed (older) plants and many of the single-stemmed clusters in 2006 is reasonable. We expect to be able to bring the milfoil under control in 2007 with a final year of intensive harvesting and matting. Thereafter we should be able to maintain a steady-state of minimal weed levels with non-heroic efforts.



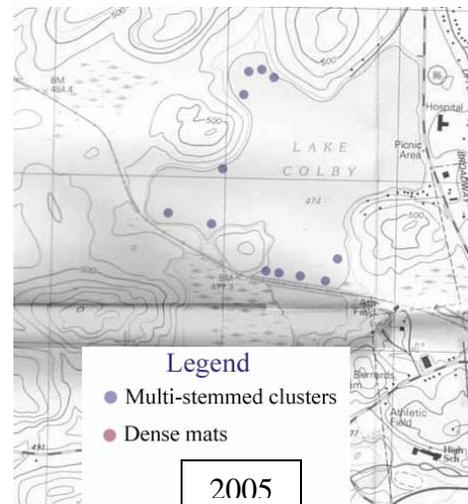
- Benthic barriers have played a significant role in attacking the dense beds. With the assistance volunteers and loaned resources (e.g., Department of Environmental Conservation boats and personnel) in support of LCA volunteers, the benthic mats were installed and moved three times in 2002, three times in 2003 twice in 2004, and once in 2005, killing roughly 1200 square feet of dense beds in each application. The entire lake has now been hand-harvested at least once (see www.lakecolby.org for detailed maps, activities, and photos of the project in process). Finishing this project is critical to the future of the Lake.
- How our project addresses this need.** Aquatic nuisance control is a priority of the *Opportunities for Action* listed by the LCBP and is also a priority in the Village of Saranac Lake's Waterfront Revitalization master plan, to which the LCA was a contributor. At Lake Colby, and for the LCA it is more than a priority; it is a struggle for the life or death of the Lake. If we can stop and reverse the spread of the milfoil we can save the Lake. Our actions since 2002 have restored much of the Lake to the point that we know we are in an end-game, we just do not yet know how long the final matches will take. In 2006, again with the help of volunteers, we will (i) place benthic barriers to

suppress re-growth in freshly picked areas, and (ii) continue the Paul Smith Watershed Institute hand harvesting program with the help of LCA, DEC, and other local volunteers.

3. **Reasons for project.** Lake Colby is a very special body of water: it is home to the State Environmental Education Camp, Harrietstown Latour park, and Village of Saranac Lake beach facilities (as well as the Adirondack Medical Center), and provides easy access for quiet enjoyment by the general public. It is also special because it is ideally sized for immediate control by conventional means and has no inlets to re-infect it, i.e., it is a battle we can win. However, Lake Colby is far from unique in its problem with milfoil. Many lakes in the Adirondacks (43 have been identified, and Eurasian water milfoil is in fact in 48 out of 50 states) are facing milfoil infestations. We believe that the right long-term solution is coordination of research and control efforts across and between the states and the federal government most likely resulting in natural biological control mechanisms. The LCA has been actively pursuing such a solution with the USDA, Army Corps of Engineers, and others (most recently Paul Smith's Watershed Institute who are conducting scientific studies of plant germination) and will continue to press for coordinated research and action. Other lakes in the LCBP program have requested (and some have received) funding for control of milfoil, and we monitor these closely (e.g., the Lincoln Pond project). However, as noted above, for Lake Colby time is of the essence. In our first LCBP grant request we said "We have no choice other than immediate action, even if it simply gives us the opportunity to continue the battle next year, hopefully with much improved odds and a much lower cost." That was accurate, even prescient, because we are no longer reacting. We are winning and doing more and more based on what we have learned (e.g., that milfoil seeds are vital the season after they are dropped, even if matted during the prior year, but do not survive through many seasons, so (i) matting seeded plants is a mistake, and (ii) two complete pickings or mattings can almost fully reclaim an area). Knowing that we are close, we want help to finish the job.



4. **Why we are doing the project.** We are a much-watched pioneer in the effort to control Eurasian Watermilfoil without the use of chemicals or non-native pathogens. A majority of our shoreowners still use the lake for drinking water. The model for our project has been posted on our web site (www.lakecolby.org) and has served as a model for other, even much larger projects (e.g., the \$1.5 million Upper Saranac Lake project), which have used our experiences to size and staff their own efforts. Unfortunately, unlike some lakes with greater resources, Lake Colby has only 1,200 feet of private shoreline and seven private shoreowners on a lake with over 17,000 feet of total shoreline (most of which is forever wild). The presence of so many public-use facilities on the lake has raised the priority for



this project, thus inducing a high level participation from the Town, NYSDEC, and volunteers.

5. **Objectives and tasks.** The 2005 map above shows the remaining work to be done. There are two phases to the 2006 project as there were in prior years. The first is the placement of semi-porous benthic mats secured by steel bars over the densest clusters of milfoil. One dense bed was picked and matted in 2004, two more in 2005. We do not expect the elimination of these last two beds will be fully accomplished until a second picking, so we will first revisit those sites and thoroughly clean them in June, 2006. As in the past, 2006 will involve using (licensed and experienced) volunteer and professional divers to hand harvest the remaining milfoil. This work will be limited to funds available, but if fully funded we believe the heroic efforts of past years will rapidly be replaced with maintenance-level support. We consider success to be the permanent elimination of all major beds and multi-stemmed plants, with maintenance-level removal of single stemmed plants sufficient to maintain a steady but minimal plant population. Our 2006 need is for a total of roughly \$15,800 in cash plus significant in-kind contributions. The requested \$7,000 LCBP grant will fill out funding needed to provide for nine days of hand-harvesting by a team of five.
6. **Methods.** The methods are those used in 2002 through 2005 which have proven effective. We will engage the same volunteer corps from the community, the D.E.C., and the LCA members. All permits (Town, County, APA) were obtained for a multi-year project beginning in 2002 and ending in 2007, which we believe will be adequate, no permits being required for maintenance level harvesting.
7. **Staffing, etc.** On-shore re-assembly of benthic barriers if required, boat handling, and some of the placement will be done by D.E.C. and LCA volunteers. The benthic barriers will be moved by the same team. To the extent possible all non-specialist work will be done by volunteers, including LCA members. All of the hand harvesting will be sub-contracted to the Paul Smith's Watershed Institute team who now know the lake well and who have considerable expertise in milfoil control.
8. **Tangible products.** We seek to reduce milfoil in Lake Colby to levels that can be controlled by minimal annual effort and expense. We expect to be able to eliminate any bed re-growth and all multi-stemmed plants in 2006 if we receive all of the necessary funding and support we are seeking. Secondly, we are creating a trained corps of volunteers who can both monitor progress and harvest milfoil in future seasons. In the end, protection of the Lake as a public resource is the single most important reason for continuing this project.

Budget (Part C)

Project Expense 2006	Benthic Barrier and Hand Harvesting Project				
DIRECT Costs:	Hours	Rate	LCBP Grant Funding	Grantee Funds	Total
<i>Contractual Services</i>			\$ 7,000	\$ 8,485	\$ 15,485
<i>Supplies/Materials</i>	0	\$ -	\$ -	\$ 10	\$ 10
<i>Equipment</i>	0	\$ -	\$ -	\$ -	\$ -
<i>Travel & support</i>			\$ -	\$ -	\$ -
Subtotal: Direct Costs			\$ 7,000	\$ 8,495	\$ 15,495
INDIRECT Costs:	0	\$ -	\$ -	\$ 900	\$ 900
Total Project Costs			\$ 7,000	\$ 9,395	\$ 16,395
Reconciliation					
LCBP Grant Funding			\$ (7,000)		\$ (7,000)
NYSDEC Local Aid					\$ -
Town of Harrietstown Funding				\$ (3,000)	\$ (3,000)
Lake Colby Association funding				\$ (5,495)	\$ (5,495)
Grantee in-kind Funds				\$ (900)	\$ (900)
Balance			\$ -	\$ -	\$ -

Notes:

1. Contract Dive Coordinator & staff are under contract with Paul Smiths' Watershed Institute, the same team employed in 2002-5. We expect to have additional volunteer divers who will work under the master diver's supervision, as in past years.
2. Indirect costs include 50 hours of volunteer work at a deemed cost of \$10/hour to remove and reinstall the benthic barriers twice and 40 hours of volunteer labor to surface assist the Paul Smith's dive team, also at \$10/hour.

Letters of Support (Part D)

As this is a multi-year project that has already received LCBP support and which continues to be a community-wide effort, we have each year provided letters of support from all of our major community support and governmental organizations, including the Town of Harrietstown, the NY Department of Environmental Conservation, Village of Saranac Lake, River Corridor Commission, Historic Saranac Lake, Paul Smith's College, Adirondack Medical Center, and the Department of Environmental Conservation.

We enclose new endorsement letters from our partners (the Town of Harrietstown and the NY Department of Environmental Conservation) and from the limit of three of these many supporters: the Adirondack Medical Center, Paul Smith's, and the Village of Saranac Lake. Each of these organizations can be contacted for references on the status of the project and the need for its continuation.