

August 23, 2004

Mr. Gary Williams
Webster Lake Association
PO Box 156
Webster, MA 01570 - 0156

Re: Project Completion Report for Chemical Treatment of Nuisance Watermilfoil Weed (2004)

Dear Gary:

This report summarizes this past year's invasive watermilfoil management program at Webster Lake. Following our selection for this project, we prepared and submitted a Notice of Intent permit application with the Webster Conservation Commission. Following an initial Public Hearing with one continuance, an Order of Conditions permit was issued for the project. A License to Apply Chemicals was also issued by MA DEP, Office of Watershed Management in Worcester, enabling the treatment program to proceed.

I performed a Pre-treatment Inspection of the different areas to be chemically treated and mechanically harvested, with you and other representatives from the Association, in early June. A treatment date was set for June 14th. The Association with assistance from Aquatic Control, handled the treatment notification process and posting of the lake shoreline to be chemically treated, (with printed signs), warning of the temporary water use restrictions. Treatment proceeded on June 14th using our Classic, 18 foot Airboat, equipped with a special pump, 100 gal. tank and sub-surface chemical injection system. The treatment proceeded smoothly and required ~ 3-4 hours to complete. Areas 2-9 as shown on Geosyntec's map (Fig. 2) dated 1/16/04 were treated with Reward (Diquat) herbicide at a dose of approximately 1.5 gals./acre. A small (~1-2 acre) additional area located in proximity to the far southeast shoreline and cove, was also chemically treated. In total, approximately just 35 acres out of the lake's total area of some 1270 acres were chemically treated. Conversation with Paul LaFramboise several weeks post-treatment, indicated that overall, >95% control and reduction of milfoil had been attained in the targeted treatment areas.

The approximate 2.5 acre far northern cove was mechanically cut and harvested on July 12, 13 and 15. Approximately 24 hrs., of harvesting time were expended, including an additional 8 hrs., authorized by the Association to harvest a somewhat larger area than originally proposed. A total of 24 harvester loads were cut and removed from the lake, which equates to roughly 31 tons (wet weight) or 158 cubic yards of plant material. Loading, trucking and disposal were handled by the Town, with additional equipment (a long reach excavator) donated by Paul's company.

Paul and I inspected all areas that were chemically treated and mechanically harvested on August 12th. Some of the waterlilies and watershield had partially regrown throughout the harvested area. Still, however, the benefits of harvesting remained apparent. Control of milfoil in all treated areas continued to be excellent. A small amount of milfoil regrowth was observed in the far southeast cove that was treated. Re-infestation from untreated adjacent beds of milfoil likely resulted in the milfoil regrowth.

The most noteworthy observation made during our inspection was the large amount of fanwort (*Cabomba*) weed observed in areas nos. 4,5, 7 and the far southeast cove. We also observed some fanwort near the junction of areas 1 and 2. All of these areas should be thoroughly inspected within the next several weeks or so, to map and quantify the relative distribution/abundance of fanwort and to determine the specific areas that need to be treated. The heaviest growth of fanwort was viewed in areas 4 and 5. Areas 4,5 and 7, lend themselves fairly well to treatment with Sonar (Fluridone) herbicide. Sonar is the only herbicide that's effective on fanwort. The mouths of these three coves can be cordoned off fairly well with floating, impermeable barriers/curtains, which are temporarily deployed to contain the highly soluble Sonar herbicide. A narrow opening can be left in the barrier/curtain to allow for boat passage. The far southeast cove would be more difficult and costly to treat because it is fairly open and dilution of the Sonar would occur more rapidly. A combination of liquid and "slow release" pellet formulations of Sonar are likely to be used in those areas where treatment occurs. . Sonar works very slowly, typically requiring ~ 60-90 days for plant uptake and kill of the targeted plants. A series of 2-4 applications would be applied to these areas, beginning next spring. Sonar residue levels in the water are monitored during the treatment process to help guide the timing and dose for the booster applications. A rough estimate of treatment cost for areas 4,5 and 7 is in the range of \$15,000. I can't over-emphasize the importance of treating and managing this invasive fanwort next spring, before it becomes widely distributed throughout the main body of the lake. We recommend that Geosyntec inspect these areas and possibly additional sites in the lake, to further define the distribution of fanwort. I'm enclosing a pamphlet from MA DEM that provides good color photos showing the difference among Eurasian and variable watermilfoil along with fanwort.

Reward herbicide is a contact herbicide and some re-growth of milfoil throughout these same treated areas can be expected next year. We originally offered the Association an optional three year, fixed price program for maintenance treatment (as required) of these same milfoil treatment areas in 2004 and 2005. We need to hear from the Association by the end of October, whether it intends to proceed with this optional program or not.

It's been a pleasure working with you, Paul and the other officers/directors of the Association this year. As the summer winds down, I'd be happy to attend a meeting to discuss our management recommendations for next year in more detail.

Thank you.

Aquatic Control Technology, Inc.

Gerald N. Smith
President/Aquatic Biologist