

May 8, 2012

Boone Lake Dam Maintenance District
c/o Mr. Gary Casaly
595 Randolph Street
Canton, MA 02021

Re: 2012 Year End Report for Boone Lake – Exeter, RI

Dear Mr. Casaly:

2012 marks the fourth year of aquatic management at Boone Lake in Exeter, RI. Boone Lake was first surveyed by Aquatic Control Technology in August 2009. At that time two non-native and invasive plants were identified in the pond, variable milfoil (*Myriophyllum heterophyllum*) and common reed (*Phragmites australis*). After evaluating management alternatives, the Boone Lake Dam Maintenance District decided to pursue an integrated management program that consisted of herbicide treatment and winter drawdown to target control of the invasive plants. The Lake was first treated in 2010. In 2011 several surveys were conducted. The results of these surveys indicated that the carry over control from the 2010 management was sufficient and no treatment would be required in 2011.

The 2012 program focused on spot-treating approximately 10 acres around the perimeter of the lake with Reward (active ingredient Diquat) herbicide to control nuisance growth of snailseed pondweed (*Potamogeton bicupulatus*) and variable milfoil. A chronological description of the 2012 aquatic management program at Boone Lake and our management recommendations for 2013 follow below.

2012 Aquatic Management Program Chronology and Description

- ◆ Received Approved RI Permit to Control Aquatic Nuisance Using Pesticides (#A1203)6/13/12
- ◆ Pre-treatment Plant Inspection6/26/12
- ◆ Reward (Diquat) Treatment for milfoil control7/24/12

Pre-treatment Plant Inspection

On June 26th a survey was conducted by Aquatic Control Biologist, Erika Haug. Sunny skies and relatively low wind provided for good visual observation. Multiple methods were used to observe plant density and distribution including use of a throw-rake and Aqua-Vu underwater camera and visualization through polarized lenses. Varying density milfoil was found around the shoreline perimeter of the lake. Locations of milfoil and dense nuisance level growth of snailseed pondweed were marked using a GPS unit. These areas were designated for treatment.

Milfoil Treatment

On July 24th several shoreline areas totaling approximately 10 acres were treated for the control of milfoil, by ACT Biologist and Rhode Island certified Pesticide applicator, Marc Bellaud and a field technician. The air temperature was approximately 90°F with a slight (< 5mph) southwesterly wind. Prior to treatment, the District notified the residents of the treatment via email and posted bright colored warning signs along the roads at access points to the lake. The treatment was conducted from an airboat. Concentrated Reward (Diquat) was first diluted with lake water in a 50 gallon spray tank. The diluted herbicide was then injected throughout the treatment areas using weighted hoses and a calibrated pumping system.

Summary and 2013 Pond Management Recommendations

The 2012 herbicide treatments performed at Boone Lake successfully controlled the targeted milfoil and snailseed growth. Given the control observed in past years we do not anticipate that treatment will be necessary in 2013. However, some regrowth may occur during the 2013 season. Carry-over control and the potential need for management in 2013 should be assessed during a pre-treatment inspection, conducted in early to mid June.

Milfoil:

While carryover control is anticipated in 2013, we recommend surveying the lake to be sure. Winter drawdown should help to further reduce milfoil regrowth but may stimulate growth of snailseed pondweed. Spot-treatment is recommended on an as needed basis for the 2013 season. Reward (diquat) herbicide will be the most cost-effective alternative if milfoil regrowth requires treatment.

Phragmites

The Habitat (Imazapyr) herbicide treatment performed in 2010 provided excellent control of phragmites. Some limited regrowth may occur that could be targeted with follow-up spot-treatment or possibly hand-pulling.

Monitoring:

Early and late season surveys should continue to be part of the management program to help evaluate the efficacy of techniques used and to guide future management activities.

We have enjoyed working with the District this past year and look forward to assisting with future lake management efforts at Boone Lake. Please do not hesitate to contact our office to further discuss recommendations outlined in this report.

Sincerely,

Aquatic Control Technology, Inc.



Marc Bellaud
Senior Biologist