The board of Three Mile Lake Association has spent a great deal of time researching the pros and cons of various alternatives used to control algae. When we heard of the use of ultrasonics we felt it offered the most promising approach for our lake. Over the winter, we formed a task force, which included three members of the association, to look into this, and to assess the feasibility of its application on Three Mile Lake.

This environmentally safe technology has been tried and proven effective in the United States, European Union, Australia and other countries to manage blue-green algae on ponds and reservoirs. It is now being introduced to Ontario for application on larger bodies of water. Some of the advantages are

- avoids the use of chemicals
- requires very little maintenance
- MOECC has advised that the technology does not trigger the requirement for Environmental Compliance Approval
- environmentally friendly

Ultrasound, at the frequencies used to control blue-green algae, has been demonstrated to have no negative impacts on macrophytes, fish, other aquatic organisms and, most importantly, poses no risk to human users. The same technology is used recreationally in such applications as fish finders, depth sounders. The medical uses include physiotherapy treatments, lithotripsy of kidney stones, high intensity focused ultrasound (HIFU) for non-invasive surgery, fetal and organ imaging and dental hygiene. While ultrasound will not eliminate the original conditions that support the proliferation of algal blooms, it does control their growth rate minimizing their potential to form blooms and scums within the treated area.

The firms of CanDetec Inc., and McQuest Marine Services Limited, will be delivering and overseeing the project. Combined, these companies have extensive experience in water resources management, nutrient assessment, hyrdogeology, and sonar surveys of lakes and rivers.

They will be deploying a single floating offshore unit in a small bay which experiences a minimum amount of boat traffic. A solar system will be used to operate the ultrasound unit, and the pump that will slowly rotate the CanDock float. The unit will be five feet in diameter and sit four feet off the water. It will be equipped with reflectors and a flashing night. Hazard buoys will be used to warn boaters.

Initially there will be a two month evaluation period; in order to effectively monitor the effectiveness of the ultrasound program to control blue-green algae. Two samples per week will be taken and sent away for analysis (one sample from the test area and one sample from a control site). This information will be shared with the Association and if

we see a statistically significant difference between the test site and the control over the two month evaluation period we will proceed with the project for the remainder of the ice-free season.

This is a very limited field test intended to evaluate the potential of a broader application of this technology.

We are pleased that Muskoka Lakes Association supports this initiative and appreciate their assisting us, both financially and administratively.

For more information please read the full proposal on our website. It is located on the homepage. If you read the whole document, note that we have chosen Option B.

We will keep you up to date as the next steps unfold.

Sue