



Dear Lake Shirley Community,

For nearly 20 years, the Lake Shirley Improvement Corporation has spearheaded the treatment of Lake Shirley for invasive vegetation and algae growth. The stewardship of Lake Shirley is the LSIC's primary mission and goal, contributing to the enjoyment and health of the lake for generations to come. In 2007, our lake was completely consumed by invasive weeds and was shut down **entirely**. We were unable to boat, swim or fish due to the abundant takeover of invasive weeds. Lake Shirley was essentially a swamp. Residents assembled in the Turkey Hill building that summer, and banded together quickly with a plan to take back Lake Shirley using chemical treatment for the first time. Residents quickly contributed over \$125,000 in total, and we were able to treat Lake Shirley aggressively, reclaiming our lake.

Since the inception of the Lake Management program, we have treated invasive weed growth in the lake using a chemical called **Diquat**, funded through LSIC memberships. Utilizing surveys, observations and recommendations from our professional partners, targeted areas are identified with concentrated invasive growth. This has been effective, but recent professional surveys have shown that the invasive species "Fanwort" is expanding faster than we can treat using these methods. At the recommendation of our partners at Solitude Lake Management and Aquatic Restoration Consulting, and the support of the LSIC Board, the time has come for a treatment of the **entire** lake to win this war against invasive growth. This treatment utilizes a product called **Fluridone**, also known as **Sonar**. The application of this product would be early in the season, with a 3-part treatment beginning in April and then May and June. This application would also yield a 3-5 year benefit, and make the continued management of the lake more manageable and effective.

The cost of this full-lake, long-term treatment is **\$224,600**. While the LSIC has funds in reserve, we will need to quickly raise an additional **\$50,000** for this treatment, by the **end of March**. Treatment must begin in April to be effective for 2025. For that reason, we are reaching out to every lake resident with an urgent plea for contributions to fund this battle against invasive weeds.

We kindly ask for your **support through a donation** to help fund this vital project. Every contribution, no matter the size, brings us closer to restoring and protecting our beloved lake.

Suggested Donation Levels:

- \$200 – Preservation Partner
- \$300 – Aquatic Steward
- \$500+ – Champion of Lake Shirley

Ways to Donate:

✓ **Mail a check** payable to **LSIC** at P.O. Box 567, Shirley MA, 01464



✓ **Donate online** at

✓ **Contact Joanna Bilotta**, treatment@lakeshirley.com or 978-337-6444 for any questions.

This treatment plan has already been approved by both Lunenburg and Shirley Conservation Commissions. The final hurdle is funding. We need your contributions to achieve this goal. Please share and spread this request and information with your lake friends and neighbors. Any additional contributions for this specific purpose will be earmarked to be used **exclusively** for Weed and Algae treatment. We sincerely appreciate your continued support through LSIC membership, and hope we are able to raise these additional funds to win this war against invasive growth.

Sincerely, **The LSIC Board of Directors**



Fanwort (*Cabomba caroliniana*) Overview

Fanwort is an invasive aquatic plant that spreads rapidly in freshwater lakes, ponds, and slow-moving rivers. It is problematic because it:

- Forms dense underwater mats, obstructing water flow and recreation.
- Outcompetes native aquatic vegetation.
- Reduces oxygen levels, negatively impacting fish populations.
- Spreads through fragmentation, meaning any small piece can form a new plant.

How Does Fluridone Work?

Fluridone (Sonar A.S., Sonar PR, or equivalent) is a systemic aquatic herbicide that inhibits carotenoid biosynthesis, a process essential for photosynthesis. By blocking this pathway, fluridone causes the plant to bleach and die gradually over a period of 30 to 90 days. Applied at extremely low concentrations (<15 ppb), it provides selective control, minimizing impact on native aquatic plants and wildlife. Fluridone is EPA-approved and considered safe for humans, fish, and other aquatic life when used according to label instructions. It does not pose a risk to swimming, drinking water, or irrigation at prescribed application levels. The herbicide spreads throughout the water column (depth of the lake), ensuring even distribution and effective treatment of large infestations without requiring mechanical agitation.

Why Fluridone is the Best Solution for Lake Shirley:

- Long-Term Control – Fluridone eliminates fanwort at the root level, preventing regrowth.
- Minimal Environmental Impact – Selectively targets invasive species while allowing native plants to thrive.
- Preserves Water Quality – Reduces oxygen depletion and excessive nutrient accumulation caused by decaying plant matter.
- Non-Intrusive Application – Fluridone does not disrupt lake sediments or require extensive labor.

This treatment plan was presented at the 1/29/25 Conservation Commission meeting which may be viewed on Lunenburg Access TV and Youtube. Additionally, you may email treatment@lakeshirley.com or visit the “Resources” page at Lakeshirley.com.

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