

## **Lake Morey Aquatic Vegetation Management Plan 2007 Annual Report**

### **SUMMARY OF 2007 AQUATIC VEGETATION MANAGEMENT PROGRAM Renovate 3 and Renovate OTF Herbicide Treatments**

Overall, the Renovate herbicide treatments performed in 2007 provided effective control of the targeted Eurasian watermilfoil, while maintaining a diverse and robust assemblage of non-target native species. Results of the Renovate 3 liquid applied to the north end were excellent and were consistent with previous large, contiguous block treatments performed in Vermont. Results were mixed in the Renovate OTF treatment areas. Site B on the northwest shore and Site D on the southeast shore yielded favorable milfoil control. Site C on the west shore was the only area where the treatment did not achieve a favorable reduction of milfoil. Dilution and movement of the herbicide away from the targeted plants were initially believed to be the reason for the reduced control seen in Site C; however, this was mostly discounted since Site D was smaller than Site C, and higher residual triclopyr concentrations were detected in Site C during the 2-day post-treatment sampling round. After considerable discussion with technical specialists from SePRO, the most logical reason for the reduced effectiveness seen in Site C is that the milfoil plants were significantly more mature at this location at the time of treatment. Mature plants are less susceptible to herbicide uptake and translocation due to the slowed growth processes. Future treatments should be performed earlier in the year to improve efficacy.

### **Spread Prevention and Non-Chemical Control Activities**

As required by the DEC Permit, non-chemical milfoil control activities continued at Lake Morey during the 2007 season. Bottom weed barrier was removed and relocated as stipulated by ANC Permit 2005-B05. Over 1500 hours of volunteer effort for monitoring, hand harvesting, diver work and floating fragment removal. Details of the non-chemical control efforts are provided in 24 September 2007 letter from Frank Barrett, Jr., Chair of the Fairlee Selectboard (Appendix C).

### **RECOMMENDATIONS FOR 2008 MANAGEMENT PROGRAM**

Based on the success of the 2007 Renovate herbicide treatment program, the Town and LMPA intend seek permit approval for additional herbicide treatment during the 2008 season. The favorable selectivity for non-target plants achieved in 2007 warrants targeting all remaining milfoil beds during the 2008 season. Where most of the remaining beds are located in narrow bands along steeply sloped shorelines Renovate OTF (On Target Flakes) is the recommended triclopyr formulation. The following modifications are recommended to improve treatment efficacy in 2008:

1. Treat earlier in the growing season when all milfoil plants are less than 4 feet tall. This will likely require a mid-late May treatment date.

2. Treat a minimum of 2.5 acres around each milfoil bed to overcome the effects of dilution. The only exceptions to this might be along the southwest shoreline where there are several small milfoil beds isolated very close to shore. Smaller targeted treatments may be considered in these locations.

3. Increase the application rate to 2.0 – 2.5 ppm.

It is expected that these modifications will improve treatment efficacy. Non-chemical control strategies will continue to be utilized to target scattered milfoil regrowth in 2007 treatment areas and any remaining milfoil plants once the full effects of the 2008 treatment are realized.