

**2016 Annual Summary Report
Aquatic Management Program
Rogers Lake
Old Lyme, CT 06731**

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SOLitude Lake Management was contracted by the Town of Old Lyme to conduct an aquatic vegetation and algae management program at Roger Lake. The 2016 program focused on the control of non-native and invasive fanwort (*Cabomba spp.*) and variable-leaf watermilfoil (*Myriophyllum heterophyllum*). The management program was comprised of an area selective herbicide treatment with the USEPA/CT registered aquatic herbicide Clipper (active ingredient flumioxizan). An outline of the 2016 program along with our recommendations for ongoing management follow.

TREATMENT PROGRAM SUMMARY

Project Task	Date Performed
Performed pre-treatment notification	6/28/16
Conducted Clipper herbicide treatment	7/5/16
Performed post-treatment inspection	7/19/16

TREATMENT PROGRAM SUMMARY

Following the competitive bid process, contract award, and receipt of the approved CT DEEP permit SOLitude Lake Management staff prepared to conduct the Clipper herbicide treatment on July 5th as scheduled. Notification of the scheduled treatment date was published in the local newspaper to alert the public of the impending treatment and the post-treatment water-use restrictions. In addition to the newspaper notification, warning signs indicting the treatment date, the areas of the lake to be treated, and the associated water-use restrictions were posted at all shoreline access points and other high use areas around the lake. Following the necessary notifications and treatment preparations, SOLitude’s CT licensed applicators performed a Clipper herbicide treatment to control the growth of milfoil and fanwort through the designated 43.6 acres of the lake. The treatment areas were uploaded into a WAAS enabled GPS unit so that the boundaries of each of the

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treatment areas could be seen in relation to the applicator's position on the lake in real time. Using our specially equipped airboat, the diluted herbicide was evenly applied to the treatment areas as a sub-surface injection at a rate of 200 ppb.

Herbicide/ Algaecide Applied	Application Date	Application Rate	Acreage Treated
Clipper	July 5 th	200 ppb	43.6 acres

POST-TREATMENT INSPECTION

Approximately three weeks following the Clipper herbicide treatment a SÖLitude Biologist inspected the designated treatment areas to assess the level of target plant control achieved and non-target impacts. The post treatment inspection was conducted on July 19th. At the time of the inspection we observed excellent control of the fanwort and variable milfoil with the treatment areas. At the time of the inspection, no viable target plant growth was observed. The only evidence of the target plants that was found consisted of dead, stripped variable milfoil stems. Some non-target plant impacts were observed within the treatment areas. Impacts to waterlily growth inside and outside the treatment areas were observable. These non-target impacts appeared to diminish with distance from each treatment area. Overall the treatment worked well to control the target non-native plant growth.

2016 MANAGEMENT RECOMMENDATIONS

The 2016 treatment program was highly successful in the control of problematic milfoil and fanwort growth within the treatment areas. The post-treatment survey showed that some of the non-targeted waterlilies in the area were affected by the treatment, but that is not unusual for moderate to high doses of Clipper. Although the treatment was highly successful for the majority of the fanwort and watermilfoil regrowth is expected in 2017. Given the presence of variable milfoil and the observed non-target plant impact, we think that the town should consider the addition of Reward herbicide (diquat) to the treatment program. Applying Reward in conjunction with Clipper for this mixture of target plants will improve the level of target plants and likely reduce non-target plant impact. Adding Reward, which is more effective on the variable milfoil, will enable the Clipper dose to be reduced which in turn lessen the potential for non-target plant impacts inside and outside the treatment area.

We feel that these proposed program modifications are necessary for the long-term maintenance of the non-native plant infestation in Rogers Lake. We appreciate the town of Old Lyme's business and look forward to working with you again in 2017. If you have any questions about the 2016 program or our 2017 management recommendations, please do not hesitate to contact our office.