



May 29, 2019
Little Whitefish Lake Association
Pierson Township
21156 Cannonsville Rd.
Pierson, MI 49339

Management Program for Little Whitefish Lake

The main focus of the lake management program in Little Whitefish Lake is to control the spread of invasive/exotic plants (Eurasian Watermilfoil, Curly Leaf Pondweed), while keeping other aquatic vegetation from reaching nuisance levels. The treatment area will vary from year to year depending on weather conditions. Clear Water Lake Management, Inc. will work in coordination with the lake board and report all necessary information back to them in a timely manner.

2019 Unit Costs:

Little Whitefish Lake DEQ Permit Fee	\$800.00
<u>Weed & Algae Treatments: 3 Treatments per year</u>	
Diquat- Contact Herbicide to control EWM & Various Pondweeds	\$205.00/acre
Aquathol K- Contact Herbicide to control Pondweeds	\$185.00/acre
Algaecides- Control of Algae	\$35.00/acre
Algaecides- Control of Chara	\$50.00/acre
Navigate 2,4-D- Systemic herbicide to control Eurasian Watermilfoil	\$320.00/acre
Triclopyr- Liquid systemic herbicide to control EWM	\$350.00/acre

Estimated Annual Budget:

DEQ Permits:	\$800.00
Nuisance Aquatic Plant Control:	\$12,000-\$18,000
Zero Gravity Aerial Mapping (optional service, price not shown in total cost)	\$3,500.00
Township Administration and Contingency (postage, mailings, copies, etc.):	10% of total cost
Total (Price does not include Township Contingency fee):	\$12,800-\$18,800.00

Optional Services

Muck Treatment using MuckAway:

MuckAway is designed to decrease levels of organic sediment in lakes and ponds while reducing odors and improving water clarity. The pellets sink quickly, targeting 'muck' on the bottom. MuckAway does not contain pathogenic bacteria and it is fish and wildlife friendly. Contains 3 billion CFU/gram (Colony-forming units)

Zero Gravity Aerial Mapping (Best Mapping Option):

Aerial survey for aquatic vegetation to map out native and non-native aquatic plants. Complete macrophyte study available.

Bio Base Mapping:

Mapping using Lowrance Depth Finder to get Sonar readings to map out bathymetric and vegetation biovolume maps

Water Quality Program: Water quality program consists of lake samples taken and sent to an independent laboratory (Prein & Newhof). The samples can be tested for a variety of things including; fecal bacteria (E. coli), dissolved oxygen, conductivity, total dissolved solids, pH and alkalinity. Primarily E. coli is the focus.

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