

WATER PLANT

Milfoil Control In Lake Luzerne

South-End in Late Season 2009



Eichler, 2009 Survey, South-End only, Locating EWM

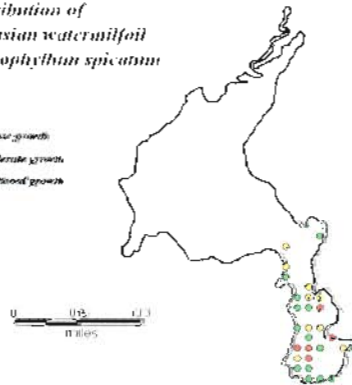


Eichler 2009 Survey, EWM Qualified

Lake Luzerne

*Distribution of
Eurasian watermilfoil
Myriophyllum spicatum*

- Dense growth
- Moderate growth
- Scattered growth



Our budget was ± \$20,000/year What were our options?

We estimated the South end at 11 acres EWM coverage, and the remainder of the lake at 10 acres coverage

- **More Matting** - ± \$12,000/acre ----- => \$250,000
(95% effective but kills *everything* under the mat)
- **Hand Picking** - ± \$6,000 - \$10,000/acre -- => \$130,000
(75% effective in first year, requires constant re-picking for several years)
- **Chemicals, South-end only**, - ± \$1,200/acre - ± \$13,000
(effective rate unknown – 85% thought to be optimum, APA permit required)

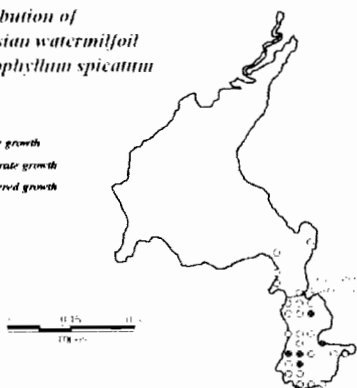
Eichler 2009 Showing Curtain

APA Permit was issued in February 2010 for treatment in May 2010, contingent upon use of sequestering curtain.

Lake Luzerne

*Distribution of Eurasian watermilfoil
Myriophyllum spicatum*

- Dense growth
- Moderate growth
- Scattered growth



Applying Renovate



Application by Aquatic Control Technology

1. Application:
 - a) 850 lbs Renovate OTF® to 9 of 15 acres, to achieve 0.5ppm potency
2. Cost:

a) Chemical Cost and application services-	\$7,882
b) Herbicide residue testing:-----	2,200 ¹
c) Pre- and Post- treatment Inspection, Y/E report	2,000 ²
d) Rental of 300 feet Limno barrier/curtain	<u>1,000</u>
TOTAL-----	<u>\$13,082</u>

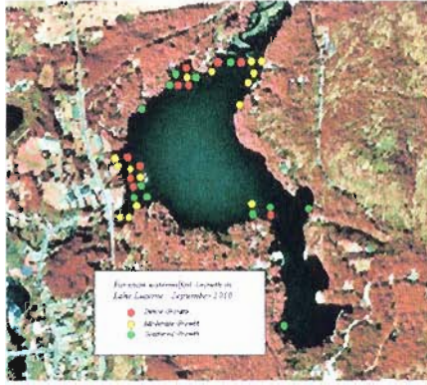
¹ 22 samples at \$100/sample - Town paid for shipping
² Deliver barrier; inspect site and confirm stage of plant growth; reclaim barrier; post-treatment survey to evaluate control & impacts to non-targets; preparation of year-end report that detailing treatment program and observations

*114 Acres
 total
 70' max
 depth
 Aug 25'
 THIS BAY
 max 18'
 6 week TESTING*

\$100 per Sample

EWM Comparison – 2010 vs. 2009

Entire Lake – 2010
Note South-End



South End only - 2009



MAY 17
APPLICATED

64 RAKE
TOSS
only found
100
1 location

Hand-Picking in 2010

(Performed In addition to Triclopyr Treatment)

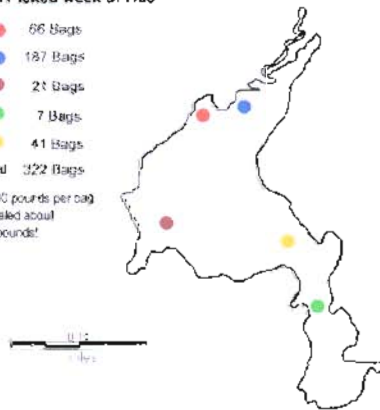
Lake Luzerne

Milfoil Picked week of 7/30

- 66 Bags
- 187 Bags
- 21 Bags
- 7 Bags
- 41 Bags

Total 322 Bags

At 25-30 pounds per bag
this totaled about
8,500 pounds!

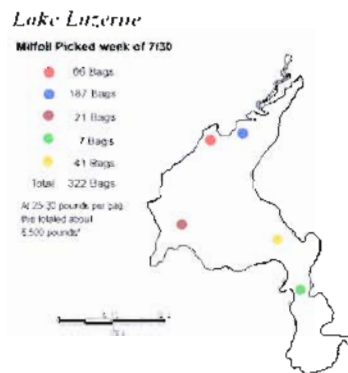


A test of Hand-Picking was performed in July by AIM -Aquatic Invasive Management. Cost of this test was \$4,000.

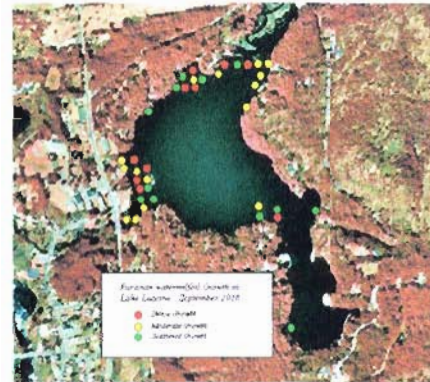
Follow up
Survey
Sept. 10
By Eichen

Efficacy of Hand Picking

Areas Hand-Picked in 2010



Eichler Fall 2010 Survey – Was Hand-Picking effective?



Where do we go from here?

Hand Harvesting?

Pros:

- Easy permitting process

Cons:

- Expensive
- 2010 test was inconclusive
- Major and costly effort may have to go on indefinitely
- Vendor Availability unproven

More chemicals?

Pros:

- Inexpensive
- Efficacy *appears* far superior to anything else
- Periodic follow-up-hand-picking s/b easy & effective

Cons:

- Complex permitting process
- Likely requirement for Sequestering
- Public aversion to "Chemicals" or "Herbicides"