

To: Fred Korzon, Supervisor  
Bloomfield Township

Subject: Recommended Lake Improvement Program  
Island Lake  
T.2N. R.10E.  
Sections 17 & 18

Prepared By: Randal L. Ford, P.E.

Date: March 28, 1983

The estimated cost for mechanical harvesting of weeds in Island Lake is \$29,500.00 per year.

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Subject: Recommended Lake Improvement Program  
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T.2N. R.10E.  
Sections 17 & 18

Prepared By: Randal L. Ford, P.E.

Date: February 22, 1983

Our recommendation for control of the aquatic vegetation problems in Island Lake involves cutting the weeds from selected areas of the lake and subsequent disposal.

Basically, the weed harvesting will consist of three phases:

- (1) Cutting or pulling the weeds.
- (2) Transporting the weeds to the shore.
- (3) Loading and trucking to a disposal site.

Equipment will consist of a harvester and shore conveyor. The harvester cuts or pulls a swath approximately 8 feet wide and up to 5.5 feet deep using a front and side mounted sickle bars. The severed weeds fall on a conveyor belt and are moved to a hopper on the harvester. When the hopper is filled, the harvester returns to shore where the weeds are transferred by conveyor to a truck for transfer to the disposal site.

The most significant advantage of weed harvesting is the ultimate removal of nutrients from the lake. Over a period of time, concentrations of available nutrients for plant growth will be lowered to levels where nuisance growths should not occur.

Another advantage is that no additional biochemical oxygen demand will be required; therefore adverse effects on fish and marine life will be minimized.

Harvesting will be done in the late Spring when the weed growth is most rapid. Also, harvesting at this time yields maximum poundage of plant material to be removed.

Benefits derived from harvesting weeds on Island Lake would be improved aesthetics, increased usefulness for boating, fishing and swimming.

A five (5) year program is proposed. The total estimated cost shall not exceed \$147,500.00, payable in five (5) equal annual installments of \$29,500.00 or \$500.00 per year to be assessed against record owners of 59 lots including one outlot.

Morphometric Data Pertinent to Island Lake

Area	108 Acres
Perimeter	2.6 Miles
Mean Depth	4.1 Feet
Maximum Depth	41 Feet
Watershed Area	222 Acres

Attached hereto is a topographic map of Island Lake and the adjacent area.