





Emily Lake 2011

INSTITUTE FOR FISHERIES RESEARCH
 DIVISION OF FISHERIES MICHIGAN CONSERVATION DEPT.
 LAKE INVENTORY MAP
EMILY LAKE
 AREA 53.5 ACRES
 MARGINAL SURVEY AND SOUNDINGS 2/19/20/54
 INVENTORY 7/23-30/56
 HOUGHTON COUNTY T.52 N.R.36 W. SEC.34

Sampling Point 

- LEGEND**
- BOTTOM**
-  Sand
 -  Pulpy peat
 -  Fibrous peat
 -  Gravel / Deadhead
- OUTLINE & CONTOURS**
-  Shoreline
 -  Contours
- SHORE FEATURES**
-  Slope
 -  Encroaching shore
 -  Beaver house
 -  Beaver dam
 -  Wooded
 -  Brush
 -  Outlet
 -  Improved road
 -  Cottage
- VEGETATION**
-  Emergent
 -  Submergent
 -  Floating
- STATIONS**
-  Temp. chem. analysis
 -  Fish sample

B.M. - 100.0 - SPIKE BASE OF
 WHITE PINE
 WATER SURF. ELEV. = 89.2
 2/20/54

PUBLIC
 FISHING
 SITE

0 100' 200' 300' 400'
 SCALE

Review of Findings: Emily Lake

PARAMETER	FINDING	INTERPRETATION
Lake Type	Groundwater drainage	Outlet only
pH	6.75	Nearly neutral
Alkalinity	4.0 ppm	Mod. sensitivity to acid rain
Hardness	4.7 ppm	Soft water
Secchi (clarity)	13.2 feet	Good
Chlorophyll 'a'	1.0 ppb	Little planktonic algae
Tot. Phosphorus	Non detect (ppm)	Very good/excellent quality
Total Nitrogen	0.40 ppm	Ratio N:P indicates P-limited
Trophic Status	TSI (chlorophyll) =30.6	Mesotrophic - Oligotrophic
Conductivity	13.6 μ S/cm	Very little dissolved material
<i>Escherichia coli</i>	4 (MPM/100ml)	Low fecal contamination

Historic comparison: 1978 MDEQ measures comparable; Secchi of 18 in '78