

Lilly Lake, Forest County.

Lily Lake is a 211-acre hard water drainage lake. It has a maximum water depth of 24-25 feet. The shoreline consists of sand (45%), muck (30%), gravel (15%) and rubble (10%). The fish population consists of walleye, largemouth bass, smallmouth bass, northern pike, rock bass, black crappie, pumpkin seed and sucker (Surface Water Resources of Forest County, DNR 1977).

Lily Lake has rusty crayfish. This exotic crayfish often destroys (eats) large amounts of aquatic vegetation. The lack of vegetation often causes an increase in algal blooms. Normally plants use up the nutrients in the lake and lake sediments. But with fewer plants there are more nutrients available for algal blooms. According to RT Krueger, at the peak of the rusty infestation, 61% of the stations he monitored had heavy algal blooms.

DNR conducted a site visit of Lily Lake, Forest County, on September 21, 2001. DNR staff boated around the lake to see what plants we could find. The plants were beginning to die back and the lake was cloudy (algal bloom). It was hard seeing the submerged plants to even do proper mapping of the beds. We identified 8 beds of plants on the lake (see map). Based upon this site visit, a second visit in 2002 was scheduled.

Plants identified in 2001 & 2002 included:

Site 1 – Spadderdock (yellow water lily), white water lily, coontail, flatstem pondweed, unidentified fine leaf pondweed, and duckweed.

Site 2 – A good size bed of Spadderdock.

Site 3 – There are two 3's on the map. Both have sparse amounts of spadderdock.

Site 4 – White waterlilies. The rhizomes were pulled out. The bed was almost destroyed. We could not tell how or why the plants had been pulled out.

The wetland complex just north of site 4 contained sweet gale, sedges, tamarack and cattails.

Site 5 – White waterlily and coontail

Site 6 – Spadderdock, coontail and rush.

Site 7 – Spadderdock.

Site 8 – Sparse spadderdock.

On September 25, 2002 Forest County Fish Manager, Bob Young and Aquatic Plant Management Specialist, Laura Herman conducted a follow-up site visit. The timing of this survey was better. We had good weather in September and the plants were still healthy. Water clarity was better than in 2001 and seeing the plants and substrate was much easier. See the enclosed map. The pink areas are areas that need to be protected for fish habitat protection and the yellow areas are the aquatic plant beds. The numbers match up with the above information. In 2002, the plant beds were scattered and the density of plants was low. Aquatic plant beds provide habitat for fish and shoreline protection (they buffer waves). Plants act as nutrient sinks (lakes with healthy plants normally have fewer summer algal blooms) and help

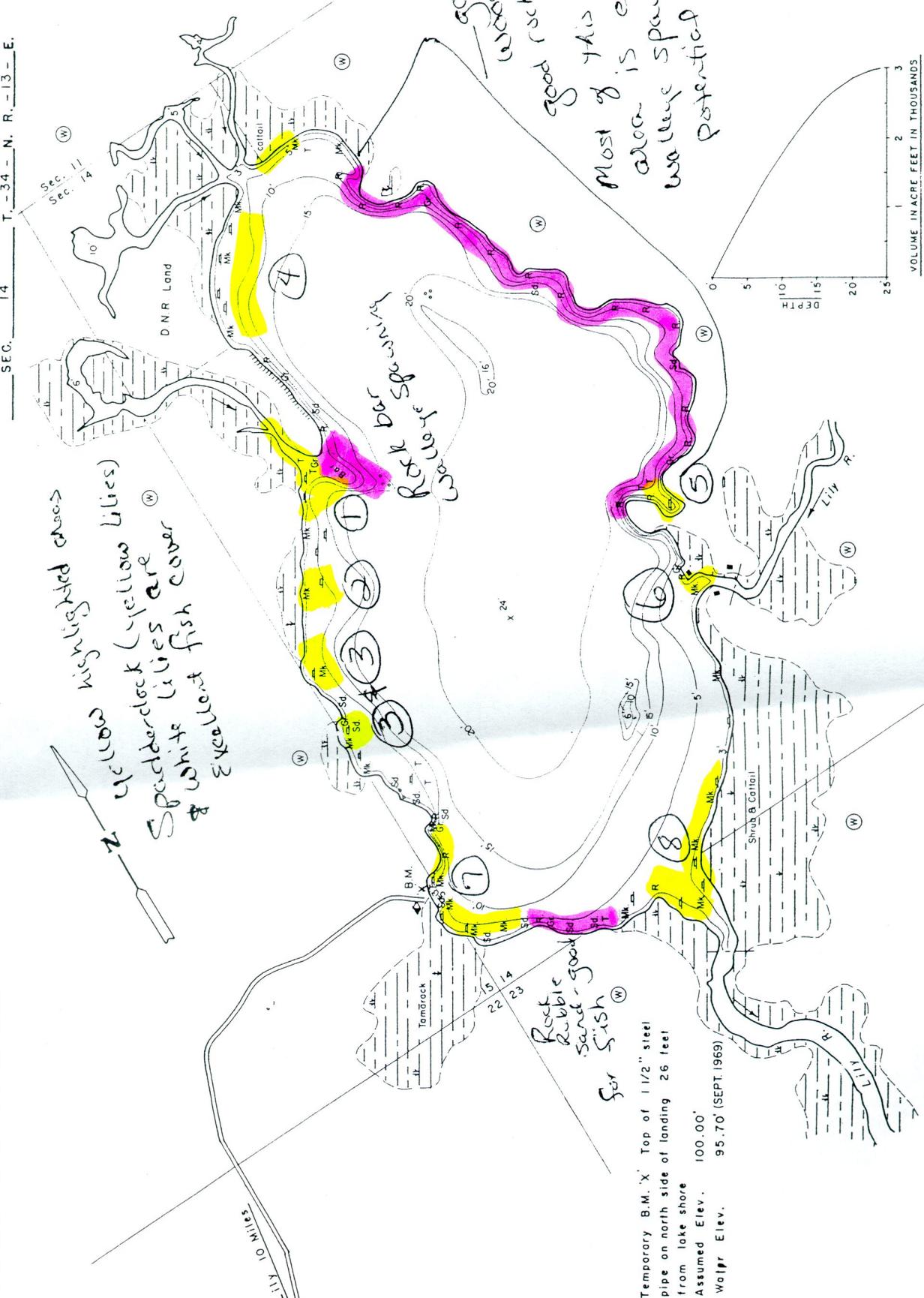
protect the area from the introduction and spread of exotics. Areas with healthy plant communities are less likely to be overtaken by exotics like Eurasian water-milfoil and curly-leaf pondweed. Both of these exotic plants are found in Northern Wisconsin. Residents should monitor the lake for these exotics. If any suspect plants are found, they should be mailed or hand delivered to the DNR for identification.

Residents and lake users need to protect all of the aquatic plants on Lily Lake. Aquatic plants are necessary for a healthy fish population. Generally speaking, to maintain a healthy fish population, a lake should have 30 – 50% of the nearshore area containing aquatic plants. We did notice that in 2001, the water lilies (60-80 feet long by 30-40 feet wide bed) were pulling out along the north side of lake. There was no evidence of why or what (who?) pulled out the rhizomes. These beds and other aquatic plant beds should be protected. RT also wanted protection of the North Bay as it is subject to erosion and is a fish reproduction area. Recommendations would be that no plants be removed (manually or mechanically) from Lily Lake and that no chemicals be used to control aquatic plants. Permits would be required for either activity and would not be issued unless the aquatic plant community increased. If invasive aquatic exotic plants become established in Lily, Lake, then the DNR would work with residents on the control of these exotics. Control of the exotics would be species selective.

Fish Management recommended that the coarse woody debris (fallen trees and logs) be left along the shoreline. These deadfalls provide habitat for fish and wildlife. Studies have shown that larger deadfall last in the lake for hundreds of years. If these are removed, you remove hundreds of years of fish habitat.

Permits are required for shoreline work including riprap and reshaping of the shoreline. These practices often destroy fish and wildlife habitat, so must be conducted in the proper manner. If you are considering shoreline work, please contact the DNR Water Management Specialists. They oversee the Water Regulation and Zoning issues and permits.

LAKE SURVEY MAP



EQUIPMENT RECORDING SONAR MAPPED SEPTEMBER 1969

| TOPOGRAPHIC SYMBOLS | LAKE BOTTOM SYMBOLS | MONTH | YEAR |
|---------------------|---------------------|-------|------|
| (B) Brush           | (P) Peat            |       |      |
| (W) Partly wooded   | (Mk) Much           |       |      |
| (W) Wooded          | (C) Clay            |       |      |
| (C) Cleared         | (M) Marl            |       |      |
| (P) Pastured        | (Sd) Sand           |       |      |
| (A) Agricultural    | (Sl) Silt           |       |      |
| (B.M.) Bench Mark   | (Gr) Gravel         |       |      |
| (D) Drift           | (R) Rubble          |       |      |
| (R) Road            | (Bt) Bedrock        |       |      |
| (C) Contour         |                     |       |      |

| SPECIES OF FISH | Present | Abundant |
|-----------------|---------|----------|
| Walleye         | X       | X        |
| Whitefish       | X       | X        |
| Yellow Perch    | X       | X        |
| Rock Bass       | X       | X        |
| Smallmouth Bass | X       | X        |
| Panfish         | X       | X        |
| Trout           |         |          |

| WATER AREA  | 212.5 ACRES    |
|-------------|----------------|
| UNDER 3 FT. | 8 %            |
| OVER 20 FT. | 23 %           |
| MAX. DEPTH  | 24 FEET        |
| TOTAL ALK.  | 10.6 P.P.M.    |
| VOLUME      | 3,007 ACRE FT. |
| SHORELINE   | 5.06 MI        |

Yellow highlighted areas  
 Spargelrock (yellow lilies)  
 White lilies are fish cover  
 & Skatollet fish cover

Rock Spawning Habitat  
 Most of this pink area is excellent walleye spawning potential

Temporary B.M. 'X' Top of 1 1/2" steel pipe on north side of landing 26 feet from lake shore  
 Assumed Elev. 100.00'  
 Walpr Elev. 95.70' (SEPT. 1969)

Rock Rubble Sand - good for fish

100' 15' 20' 25' 30' 35' 40' 45' 50' 55' 60' 65' 70' 75' 80' 85' 90' 95' 100'

Scale: 400' 800' 1200' 1600'

Access with Parking  
 Boat Livery

Drawn by: J.B. Slacker  
 Field work by: J.B. Slacker