LAKE PHYSICAL DESCRIPTION form, R-8057 (reduced to fit on this page).

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
Fisheries Division

R8057
Rev. 3/82

Lake _____ T. _____ R. _____ Sec. _____ **LAKE PHYSICAL DESCRIPTION**
County _____
Id. _____ Prepared by _____ Date _____

1. Lake: Area (ha) _____ Perimeter (km) _____ Shape factor ↓ _____ Ref. _____
2. Watershed: Area (km) _____ Perimeter (km) _____ Shape factor ↓ _____ Lake area ÷ watershed area _____ Ref. _____
3. Maximum depth (m) _____ Mean depth (m) _____ Volume (1000's of m³) _____ Ref. _____
4. Heating degree days (base 55°F) _____
5. Flushing rate (years) _____ Ref. _____
6. Drainage type (✓): Seepage _____ Intermittent outlet _____ Permanent outlet _____
7. Inlets: Names _____
   Mean annual discharge (m³/sec) _____ Ref. _____
8. Outlet: Name _____
   Mean annual discharge (m³/sec) _____
   Name of main drainage system _____
9. Lake type (✓): Natural _____ Natural with dam _____ Impoundment _____
10. Dam: Height (m) _____ Boat lock (✓): No _____ Yes _____ Functional fish ladder (✓): No _____ Yes _____
    Effect on upstream fish movement (✓): None _____ Hinders _____ Completely blocks _____
    Comments: _____
11. Annual fluctuation in water level (✓): 0-0.5m _____ 0.5-1m _____ 1-2m _____ more than 2m _____
12. Maximum long-term fluctuation in water level (m) _____
13. Soils in 0-2m (%): Organic _____ Muck _____ Clay _____ Marl _____ Sand _____ Gravel _____ Rubble _____ Bedrock _____
14. Soils in 2m+, (%): Organic _____ Muck _____ Clay _____ Marl _____ Sand _____ Gravel _____ Rubble _____ Bedrock _____
15. Shoreline (% by type): Bog _____ Swamp _____ Marsh _____ Upland _____
16. Lake use (✓): Private _____ Semiprivate _____ Public _____
17. Approximate number of: Cottages and houses _____ Resorts _____ Boat liveries _____
18. Surrounding land use (%): Undeveloped _____ Agricultural _____ Urban _____
19. Describe topography, soil, vegetation: _____

↓Shape factor formerly called shore development factor. Equals perimeter ÷ 3.5449 $\sqrt{\text{area}}$.

COPIES TO: Lansing ( ), Region ( ), District ( ), I.F.R. ( )

References for items 1, 2, 3, 5, 7, 8

Ref. code:

1. Marsh, William M. and Thomas E. Borton. 1974. Michigan Inland Lakes and their Watersheds (an atlas). Michigan Dept. Natural Resources, Water Resources Comm., 166p. (Data for lakes larger than 100 acres. Based on USGS topographic maps and may be in error if shoreline alteration has taken place since mapping.)
2. Fisheries Division lake maps (cite date of mapping).
3. Miller, J. B. and T. Thompson, 1970. Compilation of data for Michigan lakes. U.S. Dept. Interior Geol. Surv., in cooperation with Mich. Dept. Nat. Resources.
4. Anonymous. 1975. A compendium of lake and reservoir data collected by the National Eutrophication Survey in the Northeast and North-central United States. U.S. Environ. Protection Agency, National Eutrophication Survey Working Paper No. 474.
5. Humphrys, C. R. and R. F. Green. 1962. Michigan lake inventory bulletins 1-83. Mich. State Univ., Dept. Resource Devel., East Lansing, Michigan.
6. Fisheries Division files (e.g., lake volume analysis).
7. Land Resource Programs files.
8. Water Management Division files.
9. Water Quality Division files.
10. U. S. Forest Service files.
11. Derived by the preparer of this form.
    Other publications and sources (number and cite below). (e.g., P. W. Laarman, Fisheries Research, has estimated many mean depths.)

Reference for item 4

Van Den Brink, C., N. D. Strommen, and A. L. Kenworthy. 1971. Growing degree days in Michigan. Mich. State Univ. Agr. Exp. Sta., Res. Rep. No. 131, 48 p.

Continuations (use item numbers):