

## APPENDIX 9. HOW TO USE THE LAKES TABLE

The following explains the information used in the following lakes table. *Note: A blank space anywhere in the table means that data is unassessed or unavailable.*

**LAKE NAME:** All named and unnamed lakes are listed. Lake names are those found on U.S. Geological Survey quadrangle maps unless the Wisconsin Geographic Names Council has established a different name. Some lakes are known locally by other names; where available, local names have been listed with the official name.

**WATERSHED NUMBER:** (ie., "LR01") The watersheds are identified for each lake listed using the WDNR Master Waterbody File in conjunction with U.S. Geological Survey seven minute topographic maps.

**SURFACE AREA:** The surface area is the size of the lake, in acres, as listed on the WDNR Master Waterbody File, *Wisconsin Lakes* PUB-FM-900 (1995), *Surface Water Resources of Dane County* (WDNR, 1985), and *A Regional Water Quality Management Plan for Southeastern Wisconsin: An Update and Status Report* (SEWRPC, 1995).

**MAX/ DEPTH:** Maximum depths are those listed in *Wisconsin Lakes*, WDNR PUBL-FM-800-95REV and *A Regional Water Quality Management Plan for Southeastern Wisconsin: An Update and Status Report* (SEWRPC, 1995).

**LAKE TYPE:** Each lake type displays unique limnological characteristics based on physical and chemical properties. Production of plant and animal life generally varies in accordance with lake type. Basic classifications and qualifying criteria are:

**Drainage lake (DG):** Impoundments and natural lakes with the main water source from stream drainage. Has at least one inlet and one outlet.

**Seepage lake (SE):** Landlocked. Water level maintained by groundwater table and basin seal. Intermittent outlet may be present.

**Spring lake (SP):** Seldom has an inlet, but always has an outlet of substantial flow. Water supply dependent upon groundwater rather than surface drainage.

**Drained lake (DR):** Natural lake with the main water source dependent on the groundwater table and seepage from adjoining wetlands. Seldom has an inlet but will have an outlet of very little flow similar to the seepage lake except for the outlet.

**TROPHIC STATUS INDEX (TSI) CLASS:** Lakes can be divided into three categories based on categories based on trophic state: oligotrophic, mesotrophic, and eutrophic. These categories are general indicators of lake production.

**Oligotrophic (OLI):** Lakes are generally clear, cold, and free of many rooted aquatic plants or large blooms of algae. These lakes often have an efficient food chain with a very desirable fishery of large predator fish.

**Mesotrophic (MES):** Lakes are in an intermediate stage between oligotrophic and eutrophic. The bottoms of these lakes are often devoid of oxygen in late summer months, limiting cold water fish and resulting in phosphorus cycling from sediments.

**Eutrophic (EUT):** Lakes are high in nutrients. They are likely to have excessive aquatic vegetation or experience algae blooms, sometimes both. They often support large fish populations, but are also susceptible to oxygen depletion. Small, shallow lakes are especially vulnerable to winterkill, which can reduce the number and types of fish.

**LMO (LAKE MANAGEMENT ORGANIZATION):** Indicates whether or not a lake management organization (LMO) exists for the lake. An LMO can range from a small, loosely organized group of lake property owners to an association to a district, complete with by-laws and taxing authority. In the lakes table, the following letters are used to indicate whether the LMO is an association or district. If the type of organization is not known, but one does exist, a AY≅ is used.

ASSC Indicates that a lake management association exists

DIST Indicates that a lake management district exists

R Recommends that a LMO be developed; this recommendation is usually accompanied by a narrative recommendation in the watershed analysis section.

**LAKE PLAN OR PROT:** This column refers to whether the lake has been the recipient of a lakes planning or lakes protection grant in the past and if either of these grants are recommended for the lake. If a lakes planning or

protection grant is recommended, a narrative in the lake's respective watershed section will describe the recommended purpose of the grant.

PLAN = Lake has received a Lakes Management Program Planning Grant in the past.

SHCH = Lake has received a Lakes Management Program Planning Small Scale Self-Help Chemistry Monitoring Grant in the past.

PROT = Lake has received a Lakes Management Program Protection Grant in the past.

PLAN-R = A Lakes Management Planning Grant is recommended for a specific purpose identified in the lake's individual narrative in the Surface Water Quality Report watershed section.

PROT-R = A Lakes Management Protection Grant is recommended for a specific purpose identified in the lake's individual narrative in the Surface Water Quality Report watershed section.

SHCH-R = A Lake Management Planning Small Scale Self-Help Chemistry Monitoring Grant is recommended.

**PHOSPHORUS SENSITIVITY (P SENS):** This analysis classifies lakes according to their relative sensitivity to phosphorus loading and existing trophic condition. The screening identifies high quality lakes that should receive highest priority for nutrient control management. The analysis first separates lakes into two major categories; lakes that are sensitive to increased phosphorus loading (Class I) and lakes less responsive to changes in phosphorus loading (Class II). Lakes in each general classification are then subdivided into management groups based on data needs or existing water quality conditions.

Class I:

A = existing water quality fair to excellent; potentially most sensitive to increased phosphorus loading.

B = existing water quality poor to very poor; less sensitive to increased phosphorus loading than Group A.

Ins = data is inadequate or insufficient to assess trophic condition; classification monitoring recommended.

D= stained, dystrophic lake, or aquatic plant-dominated lakes.

Class II:

A = existing water quality fair to excellent; may not be as sensitive to phosphorus loading as Class I lakes.

B = existing water quality poor to very poor; low sensitivity to increased phosphorus loading.

Ins = data inadequate or insufficient to assess trophic condition.

D= stained, dystrophic lake, or aquatic plant-dominated lakes.

These classification groups are used to establish appropriate management recommendations and priorities.

**COMMENTS:**

WQ = Impaired water quality

WK = Winterkill

ES = Excessive sedimentation

EV = Excessive vegetation

F = Impaired fisheries

UC = User conflicts

**Monitoring**

SD = Self-Help Secchi Disk monitoring recommended

CH = Self-Help Chemistry monitoring recommended

ZM = WDNR staff conducts zebra mussel monitoring

CL = Classification Monitoring

CT = Condition/Status Monitoring

LT = Trend Monitoring

MCF = Microcontaminant of Fish Monitoring

SAD = Sensitive Area Designation Recommended

**Antidegradation:**

Lakes were evaluated and numerically rated for water quality, fish, wildlife, and aesthetic values by WNDR staff. Some lakes were proposed for designation in Chapter 102, Wisconsin Administrative Code, as Outstanding Resource Waters (ORM). Such a designation affords special protection under NR 102. ORW lakes were rated as having high quality values associated with water quality, fish, wildlife, and aesthetic characteristics. Exceptional Resource Waters (ERW) lakes are similar to ORW lakes in characteristics, but did not score as high in the ranking system, and were not included in NR 102 revisions.

ER = Lake Rated Exceptional Resource Water (ERW)

OR = Lake rated as an Outstanding Resource Water (ORW) by WNDR Staff

ORW = Lake rated as Outstanding Resource Water included in NR 102