

DANE COUNTY WATER BODY CLASSIFICATION STUDY

EXECUTIVE SUMMARY

Background:

Water body classification is grouping water bodies based on their physical vulnerability to human impacts and the level of surrounding development. Classification systems are used to identify and target management strategies and techniques where they are needed most and have the greatest beneficial effect. The result of this study is a classification system, which has been developed for all the navigable waters in Dane County using available scientific information and water resource survey data.

Lake and Pond Classification:

For lakes and ponds, sensitivity criteria were based on physical attributes such as lake type and maximum depth. Development levels were estimated using impervious cover percentages derived from existing land use information. Lakes are particularly sensitive to development along their shorelines and the associated impacts this has on lake ecology and habitat. Class I lakes and ponds are those characterized as possessing high sensitivity and low development levels. Protection efforts are recommended. Class II lakes and ponds are those possessing medium sensitivity and development levels. Combined protection and restoration efforts are recommended. Class III lakes and ponds are those possessing low sensitivity and high development levels. The available menu of alternatives is more limited because of pre-existing development. Restoration and enhancement efforts are recommended in these cases to replace some of the lost shoreland functions and values, where opportunity permits. This information is summarized in the following tables and presented on Map 1.

| Water Body Classification Matrix | | | |
|---|--|--|--|
| Natural Sensitivity to Development | Current Level of Development | | |
| | Low Level | Medium Level | High Level |
| High Sensitivity | Class I (Protection) | Class I (Protection) | Class II (Protection and Restoration) |
| Medium Sensitivity | Class I (Protection) | Class II (Protection and Restoration) | Class III (Restoration and Enhancement) |
| Low Sensitivity | Class II (Protection and Restoration) | Class III (Restoration and Enhancement) | Class III (Restoration and Enhancement) |

River and Stream Classification:

There is also a considerable body of research correlating impervious cover with stream quality. It has been found there is a substantial decline in stream quality as impervious area increases. Streams are particularly sensitive to changes in the quantity and source of water as development and impervious area increase. By the time the water quality impacts become evident the damage has already largely been done.

Class I streams are those having low development levels in their watershed. They are analogous to their lake counterparts in that protection efforts are recommended. Class II streams are those possessing intermediate development levels. Combined protection and restoration efforts are recommended for these transitional urbanizing areas. Class III streams are those whose level of development has overwhelmed the biological component. Remedial strategies are more directed to the aesthetic and cultural amenities associated with these streams. This information is summarized in the following tables and presented on Map 2.

| Natural Characteristics | Stream Classification Matrix | | |
|--|--------------------------------|--------------------------------|---------------------------------|
| | Class I (Sensitive Streams) | Class II (Impacted Streams) | Class III (Degraded Streams) |
| Warm and coldwater streams are equally sensitive | Protection | Protection and Restoration | Restoration and Enhancement |

Process to Date:

The focus for this study grew out of informal public meetings held by the Dane County Lakes and Watershed Commission regarding amendments to the county shoreland zoning ordinance. Public comments from those meetings prompted the submission and subsequent award of a DNR Lake Classification grant. Classification systems have been used by counties in Wisconsin to improve management of their surface water resources and tailor policies, plans, and programs accordingly. The project was initiated in June 2004 by the Dane County Planning and Development Department, with technical staff assistance provided by the former Dane County Regional Planning Commission. An introductory public meeting was also held August 26, 2004 to outline the approach and seek public comment. A technical advisory committee of state and local experts was also formed to oversee the development of the study. The final report was presented to the Lakes and Watershed Commission March 10, 2005.

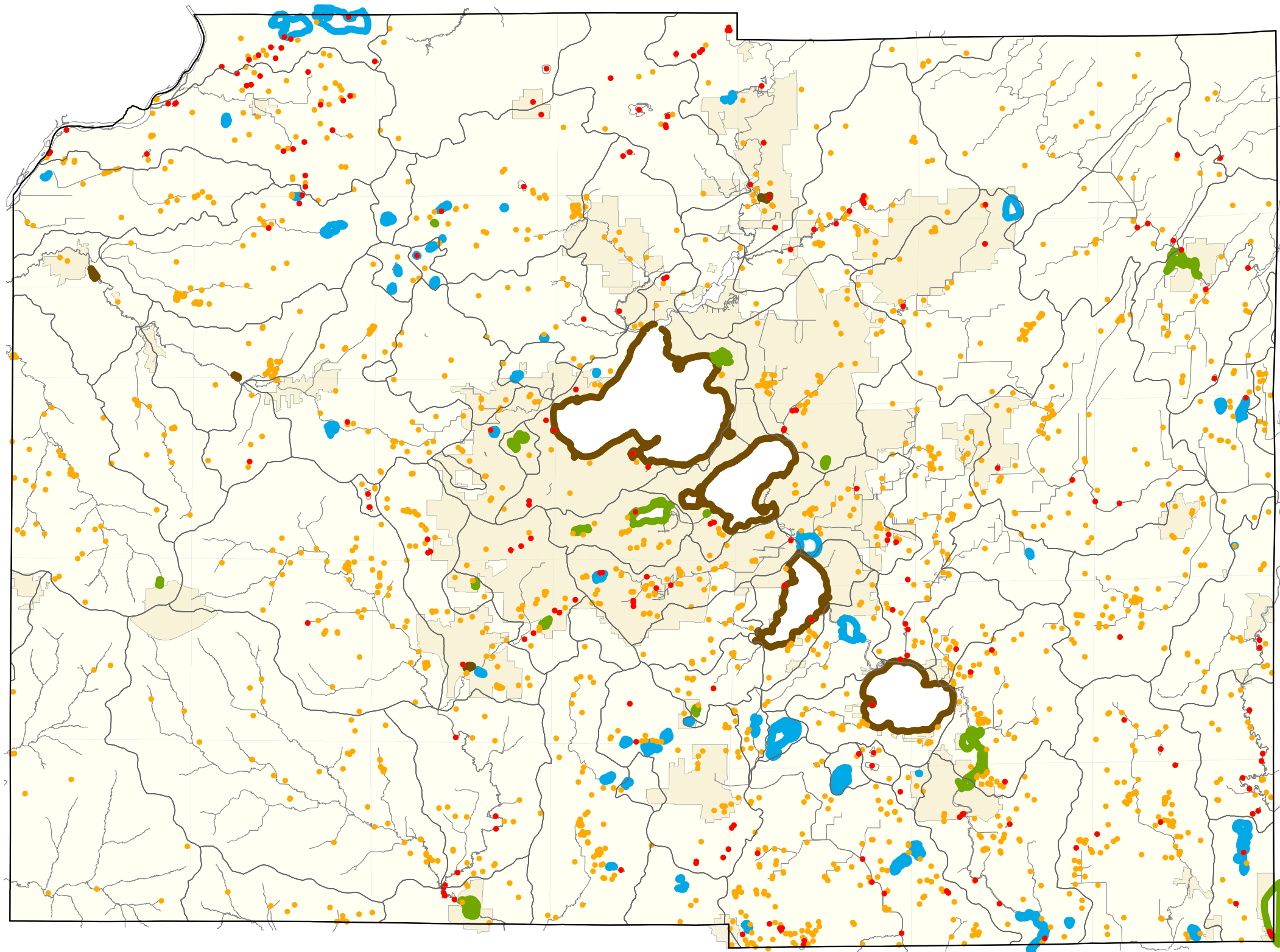
Next Steps:

Completion of the Phase I Classification System is expected to provide the basis for a Phase II Management Program coordinated by Dane County (recently funded) working with the community to determine where its interests and priorities lie, and how current efforts may be best restructured and focused. The Phase II effort would include extensive public input, discussion of priorities, identifying limitations or gaps in existing programs, and how they might be enhanced or improved. The Phase I work provides the necessary background information and basis for Phase II community discussions and efforts. It is hoped the water body classification system and subsequent management program will provide a common understanding and framework by which the various partners can work together, combine technical, financial, and volunteer resources, and target them where they are needed most and have the greatest beneficial effect.

WATER BODY CLASSIFICATIONS

1.17.07

| LAKE / POND | Class | Management Objective | RIVER / STREAM / CREEK | Class | Management Objective |
|-----------------------|-------|---------------------------|-------------------------------|-------|---------------------------|
| AMES POND | I | Protection | BADFISH CREEK | I | Protection |
| ANDERSON POND | I | Protection | BLACK EARTH CREEK (LOWER) | I | Protection |
| BARBIAN POND | I | Protection | BLACK EARTH CREEK (MIDDLE) | I | Protection |
| BARNEY LAKE | I | Protection | BLUE MOUNDS BRANCH (GORDON) | I | Protection |
| BASS LAKE | I | Protection | BLUE MOUNDS CREEK, EAST BR. | I | Protection |
| BOWER POND | I | Protection | DEER CREEK | I | Protection |
| BRANDENBURG LAKE | I | Protection | DUNLAP CREEK | I | Protection |
| BRUENIG POND | I | Protection | ELLA WHEELER WILCOX CREEK | I | Protection |
| C. BUECHNER POND | I | Protection | ELVERS CREEK | I | Protection |
| CHRISTENSON POND | I | Protection | FLYNN CREEK | I | Protection |
| CRYSTAL LAKE | I | Protection | FROG POND CREEK | I | Protection |
| DAHMEN POND | I | Protection | GARFOOT CREEK | I | Protection |
| DIEDRICH POND | I | Protection | GERMAN VALLEY BRANCH | I | Protection |
| DORN POND | I | Protection | HALFWAY PRAIRIE CREEK | I | Protection |
| DUNKIRK MILLPOND | I | Protection | HENRY CREEK | I | Protection |
| EDGERTON POND | I | Protection | JEGLUM VALLEY CREEK | I | Protection |
| ESSER POND | I | Protection | KEENANS CREEK | I | Protection |
| FISH LAKE | I | Protection | KITTLESON VALLEY CREEK | I | Protection |
| FISHERS LAKE | I | Protection | KOSHKONONG CREEK (LOWER) | I | Protection |
| FOX POND | I | Protection | LEUTENS CREEK | I | Protection |
| GALLAGHER POND | I | Protection | LITTLE DOOR CREEK | I | Protection |
| GOOSE LAKE | I | Protection | LITTLE NORWAY CREEK | I | Protection |
| GRABER/DREHER POND | I | Protection | LITTLE SUGAR RIVER | I | Protection |
| GRASS LAKE (dunkirk) | I | Protection | MARSH CREEK | I | Protection |
| GRASS LAKE (dunn) | I | Protection | MAUNESHA RIVER | I | Protection |
| HARRIETT LAKE | I | Protection | MILUM CREEK | I | Protection |
| HOOK LAKE | I | Protection | MT VERNON CREEK | I | Protection |
| INDIAN LAKE | I | Protection | MUD CREEK T07N R12E S23 | I | Protection |
| ISLAND LAKE | I | Protection | MUD CREEK T09N R12E S24 | I | Protection |
| KALSCHEUR POND | I | Protection | NOLAN CREEK | I | Protection |
| KRUTCHEN POND | I | Protection | PLEASANT VALLEY BRANCH | I | Protection |
| L. BUECHNER POND | I | Protection | PLEASANT VALLEY CREEK | I | Protection |
| MAHER POND | I | Protection | PLEASURE VALLEY CREEK | I | Protection |
| MEIER POND | I | Protection | PRIMROSE BRANCH | I | Protection |
| MENZEL POND | I | Protection | ROXBURY CREEK | I | Protection |
| MORTENSON POND | I | Protection | RUTLAND BRANCH (ANTHONY) | I | Protection |
| MUD LAKE (MARX POND) | I | Protection | RYAN CREEK | I | Protection |
| MUD LAKE T7N R12E S02 | I | Protection | SAUNDERS CREEK | I | Protection |
| MUD LAKE, LOWER | I | Protection | SCHUMACHER CREEK | I | Protection |
| MUD LAKE, UPPER | I | Protection | SPRING CREEK (DORN) | I | Protection |
| O'CONNELL POND | I | Protection | SPRING CREEK T08N R12E S15 | I | Protection |
| ORTMAN POND | I | Protection | SPRING CREEK(LODI)T9N R8E S4 | I | Protection |
| PATRICK MARSH | I | Protection | SPRING VALLEY CREEK | I | Protection |
| POND 22-14 | I | Protection | STORY CREEK | I | Protection |
| POND 7-11-34 | I | Protection | STRANSKY CREEK | I | Protection |
| POND 9-7-20 | I | Protection | SYFTSTAD CREEK | I | Protection |
| POND 9-9-13 | I | Protection | VERMONT CREEK | I | Protection |
| RICE LAKE | I | Protection | WENDT CREEK | I | Protection |
| SECTION 35 POND | I | Protection | WEST BR. SUGAR RIVER | I | Protection |
| SEMINOLE POND | I | Protection | WEST BR. SUGAR RIVER TRIB. | I | Protection |
| STOUGHTON MILLPOND | I | Protection | WISCONSIN RIVER | I | Protection |
| SWEET LAKE | I | Protection | YORK VALLEY CREEK | I | Protection |
| TURTLE LAKE | I | Protection | BLACK EARTH CREEK (UPPER) | II | Protection / Restoration |
| VIRGIN LAKE/HULL POND | I | Protection | BADGER MILL CREEK | II | Protection / Restoration |
| BELLE VIEW LAKE | II | Protection / Restoration | BOHN CREEK | II | Protection / Restoration |
| GOOSE POND | II | Protection / Restoration | BREWERY CREEK | II | Protection / Restoration |
| KOSHKONONG LAKE | II | Protection / Restoration | DOOR CREEK | II | Protection / Restoration |
| MARSHALL MILLPOND | II | Protection / Restoration | ELVERS CREEK (UPPER) | II | Protection / Restoration |
| MORSE POND | II | Protection / Restoration | FRYES FEEDER | II | Protection / Restoration |
| POND 7-10-10 | II | Protection / Restoration | KOSHKONONG CREEK (UPPER) | II | Protection / Restoration |
| POND 7-9-25 | II | Protection / Restoration | KOSHKONONG CREEK (MIDDLE) | II | Protection / Restoration |
| SECTION 26 POND | II | Protection / Restoration | MOEN CREEK | II | Protection / Restoration |
| SPRINGFIELD POND | II | Protection / Restoration | MURPHYS CREEK | II | Protection / Restoration |
| STEWART LAKE | II | Protection / Restoration | OREGON BRANCH | II | Protection / Restoration |
| STRICKER POND | II | Protection / Restoration | PHEASANT BRANCH CREEK | II | Protection / Restoration |
| TIEDEMAN POND | II | Protection / Restoration | PHEASANT BRANCH CREEK TRIB. | II | Protection / Restoration |
| WARNER PARK LAGOON | II | Protection / Restoration | SCHALPBACH CREEK | II | Protection / Restoration |
| WESTSIDE POND | II | Protection / Restoration | SIX MILE CREEK | II | Protection / Restoration |
| WINGRA LAKE | II | Protection / Restoration | SIX MILE CREEK TRIBUTARY | II | Protection / Restoration |
| KEGONSA LAKE | III | Restoration / Enhancement | SUGAR RIVER (UPPER) | II | Protection / Restoration |
| MARION LAKE | III | Restoration / Enhancement | SUGAR RIVER coldwater segment | II | Protection / Restoration |
| MENDOTA LAKE | III | Restoration / Enhancement | SUGAR RIVER warmwater segment | II | Protection / Restoration |
| MONONA LAKE | III | Restoration / Enhancement | SWAN CREEK | II | Protection / Restoration |
| SALMO POND | III | Restoration / Enhancement | TOKEN CREEK | II | Protection / Restoration |
| TENNEY PARK LAGOON | III | Restoration / Enhancement | TOKEN CREEK TRIBUTARY 1 | II | Protection / Restoration |
| VERONA GRAVEL PIT | III | Restoration / Enhancement | WEST BR. SUGAR RIVER (UPPER) | II | Protection / Restoration |
| WAUBESA LAKE | III | Restoration / Enhancement | YAHARA RIVER (LOWER) | II | Protection / Restoration |
| WINDSOR LAKE | III | Restoration / Enhancement | YAHARA RIVER (MIDDLE) | II | Protection / Restoration |
| | | | YAHARA RIVER (UPPER) | II | Protection / Restoration |
| | | | MURPHY CREEK (Wingra Cr) | III | Restoration / Enhancement |
| | | | NINE SPRING CREEK | III | Restoration / Enhancement |
| | | | STARKWEATHER CREEK, EAST BR. | III | Restoration / Enhancement |
| | | | STARKWEATHER CREEK, WEST BR. | III | Restoration / Enhancement |



Dane County Water Body Classification Study, Dane County WI.

Lake Classifications

- Class I - High Sensitivity/Low Development
- Class II - Medium Sensitivity/Development
- Class III - Low Sensitivity/High Development

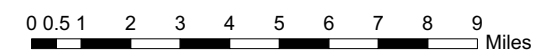
- Subwatershed Boundary
- Service Areas
- Undocumented Ponds
- Farm Ponds

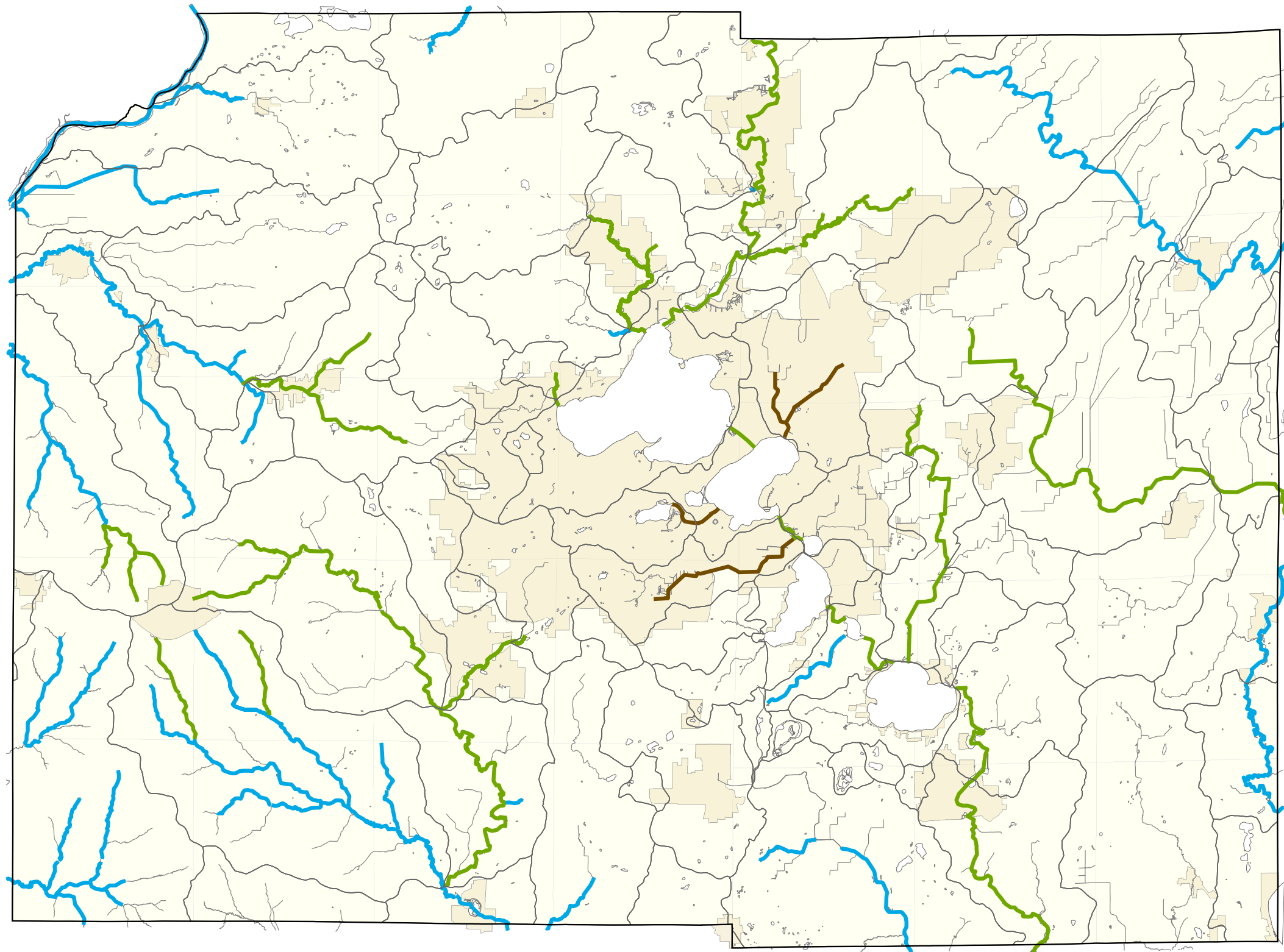
Water Features are a revised 2000 DNR hydro data file. Revisions included the use of aerial photography and past land surveys.

Mar 2007




Created by the Staff at the Dane County Regional Planning Commission. All information is believed to be accurate but is NOT guaranteed to be without error. This map is intended for general reference use and not intended for detailed site-specific analysis.
Updated by the Community Analysis & Planning Division of Dane County Planning & Development.





Dane County Water Body Classification Study, Dane County WI.

Stream Classifications *

 Class I - Sensitive Streams

 Class II - Impacted Streams

 Class III - Degraded Streams

 Subwatershed Boundary

 Service Areas

* Existing and potential cold and warmwater streams

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