SURFACE WATER RESOURCES OF OCONTO COUNTY

DEPARTMENT OF NATURAL RESOURCES
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SURFACE WATER RESOURCES
OF
OCONTO COUNTY

By

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INTRODUCTION

In 1959, the Legislature and governor asked the Conservation Department, now the Department of Natural Resources (DNR), to develop a program for classification of lakes by use. To implement this program, an inventory of all waters was set up on a county by county basis to gather basic data necessary to formulate generalizations for classification. The basic premise underlying this program is the growing realization that the uses to which surface waters are subjected are steadily increasing. With constantly increasing demands upon our water resources, use conflicts arise. Therefore a method of insuring the continued and compatible use of our water resources is needed. The objective is to provide a plan for the protection and wise utilization of Wisconsin's waters.

This inventory is designed to provide a summarization of the quality, quantity and character of the lakes and streams of Oconto County. The data gathered in this inventory hopefully will aid in the wise use and sound management of Oconto County's surface water resources.

Data for this inventory were gathered from a variety of sources. The principal sources were DNR field surveys, aerial photographs, and U. S. Geological Survey maps. Fish and wildlife data were obtained from DNR files and knowledgeable personnel. This inventory emphasizes the recreational values of Oconto County's surface waters; therefore, industrial, agricultural or domestic use is not elaborated upon except where they affect water quality.

The maps in this report should not be considered or used as factual or final authority from any legal or regulatory standpoint because of natural or man-made changes which may have occurred.

GENERAL SETTING OF THE WATERS OF OCONTO COUNTY

Early Settlement

Oconto County was created from part of Brown County in 1851. As originally established, it included all or parts of Shawano, Marinette, Florence and Forest counties and it was not until 1855 that the present boundaries were established.

The territory now within the present boundaries of Oconto County was one of the first sections of Wisconsin to be visited by white men. Due to its location on the shore of Green Bay, there is a possibility that Jean Nicolet, the first white man to come to Wisconsin, may have seen Oconto County as he skirted the west shore of Green Bay in 1634. Father Claude Allouez, a Jesuit missionary who erected missions near the present sites of Pensaukee and Little Suamico, is the first white man for whom there is an actual record of being in the county.

The early economy of Oconto County was dependent on the harvesting of forest products. The county's extensive forests provided a source for timber which was sawed at mills located at the mouths of rivers that flowed into Green Bay. Farming in Oconto County had its origin in the need for supplies by lumber companies.

During the early settlement of Oconto County a commercial fishing industry became established on the shores of Green Bay. In those early days whitefish, lake trout and herring were sent to market.

In 1855 the first state highway in Oconto County was laid out over ancient, winding Indian trails. This road led from Marinette, then a part of Oconto County, through Peshtigo, Oconto, Pensaukee, Oak Orchard and Suamico to Green Bay. This road is now known as River Road.

Oconto County was named after its major river, the Oconto, which is an Indian name meaning "pike place".

Land Use

When Oconto County was primarily unsettled, the timber cover consisted of approximately one-third pine and hemlock; one-third oak, sugar maple and other hardwoods; and the remainder white cedar, ash, elm and tamarack. Early logging eliminated much of the pine and hemlock, which was subsequently replaced by hardwoods. The need of the logging industry for agricultural products resulted in the establishment of farms. The highest number of farms (3,372) occurred in 1935 and the greatest farm acreage (363,404) in 1945. Since these dates, a decline in both numbers and total acreage of farms has been noted, although the average size of farms has increased slightly. Approximately 90 percent of the nonforest area is in farms.

Commercial forest land occupies 57 percent of Oconto County's land area. Primary timber types are aspen (40 percent), softwoods (18 percent), swamp hardwoods (10 percent) and northern hardwoods (10 percent) with the balance other hardwoods, grass and brush. About 46.7 percent of the commercial forest land in Oconto County is publicly owned. These figures are adjusted to conform with the present county boundaries; when the forest inventory was conducted, approximately 108 square miles of what is now Menominee County was in Oconto County.

Outdoor recreation in Oconto County is rapidly becoming a major land use, especially in the northern portion with its extensive areas of public land and high quality waters. A wide variety of uses including hunting, fishing, camping, canoeing, hiking, snowmobiling, etc., make this an area in which the urban dweller can enjoy high quality recreational experiences. A summary of land use data can be found in Table 1.

Table 1. Land use in Oconto County.

Land Use	Acres	Percent of Total Area
Forest Land		
Commercial forest land	369,950	57.0
Noncommercial forest land	1,460	0.2
Nonforest Land	265,014	40.8
Water		
Natural lakes	8,929	1.4
Impoundments	1,928	0.3
Streams	1,679	0.3
Total Land and Water Area	648,960	

Glacial Action

The surface features of Oconto County are the result of the movement of the continental glacier. The ice that covered the county during the glacial period is thought to have come from the Labrador Ice Sheet, which was located east of Hudson Bay. The Continental Glacier, in advancing over Wisconsin, was divided into several lobes, which were determined by the pre-glacial configuration of the land. Oconto County was covered by the Green Bay Lobe of the Continental Glacier. It is thought that there were several withdrawals of the ice sheet from this area, with the most recent being referred to as the Wisconsin Stage of Glaciation. The glaciers generally moved from the northeast to the southwest, as indicated by drumlin-like hills and eskers. Deposits left by the glaciers can be divided into two types: unsorted debris deposited directly from the ice with little or nor reworking by water, referred to as till; and sorted and stratified water-laid depoists noted as glacio-fluvial deposits. The glacio-fluvial deposits may be subdivided on the basis of topography into pitted and unpitted. The pitted deposits contained ice blocks, which eventually melted and formed pits or kettles. If these pits or kettles contain water, they are referred to as kettle lakes. Many of the lakes, especially landlocked lakes, in Oconto County occupy kettles. Figure 1 illustrates the glacial deposits of Oconto and nearby counties.

Geology

Oconto County's geology is quite complex, containing seven distinct bedrock types from three geologic eras. Figure 2 illustrates the bedrock formations. The northwestern one-half of the county is underlain primarily by granite and undifferentiated igneous and metamorphic rocks of Precambrian origin. Along Oconto County's northern border is a narrow formation of quartzite, slate and iron. Near the center of the Precambrian formation is a small area of gabbro and basalt. To the southeast of the Precambrian bedrock is the Upper Cambrian group of the Cambrian Era, which consists of sandstones. Continuing to the southeast are the formations of the Ordivician Era, which are the Prairie du Chien group consisting of dolomite, the Saint Peter sandstone and the Platteville-Galena group consisting of dolomite with some limestone.

Waters in the area of the Precambrian bedrock in the northwest tend to be less fertile and lower in pH than waters associated with the more recent bedrock formations in the southeast. The relative insolubility of the Precambrian bedrock as well as the less fertile soils which are derived from it, in part account for this situation.

The principal water-bearing formations of the county within the general area of the crystalline and granite rocks are the surface deposits of drift, although wells in the crystalline rock are also common, with the supply being obtained from open fractures and fissures. In the southeast part of the county abundant water can be obtained from the sandstone formations, as well as from the surface deposits of drift and alluvium. The water level is usually not far below the surface. Few wells in the uplands are over 100-200 feet in depth, with sufficient supplies generally obtained at less than 100 feet. In the valleys, water is nearer the surface with wells from 10-40 feet deep.

Soils

The soils of Oconto County are principally the result of weathering of glacial deposits. There is considerable variation in the soils within relatively short distances, due primarily to the various bedrock formations from which the glacial drift came. Other soils in the county have been laid down by streams (alluvial) and lakes (lacustrine). Also peat and muck soils are scattered throughout the county. Figure 3 provides a generalized soil association map of Oconto County. The most extensive soil types are the rolling fine sandy loams (Kennan-Iron River) which are located in the west and northern part of the county. The pink rolling loams (Onaway) are also quite extensive, but are located mainly in the south and east. In the northwestern part of the county there are hilly sands (Vilas). Along the Green Bay shore the soils are largely peat, muck and wet sands (Nekoosa and Brevort). Several other soil types are found, but in relatively small areas.

The soils of the northwestern half of the county are in general, sandy and lower in nutrients (fertility) than the loams of the southeastern half. This fertility characteristic is reflected in the waters of the region, with the infertile waters lying in the northwestern half of the county.

Geography

Oconto County is located adjacent to Green Bay in Northeastern Wisconsin and is bounded by Marinette, Forest, Langlade, Menominee, Shawano and Brown Counties. The location of Oconto County within Wisconsin is illustrated in Figure 4.

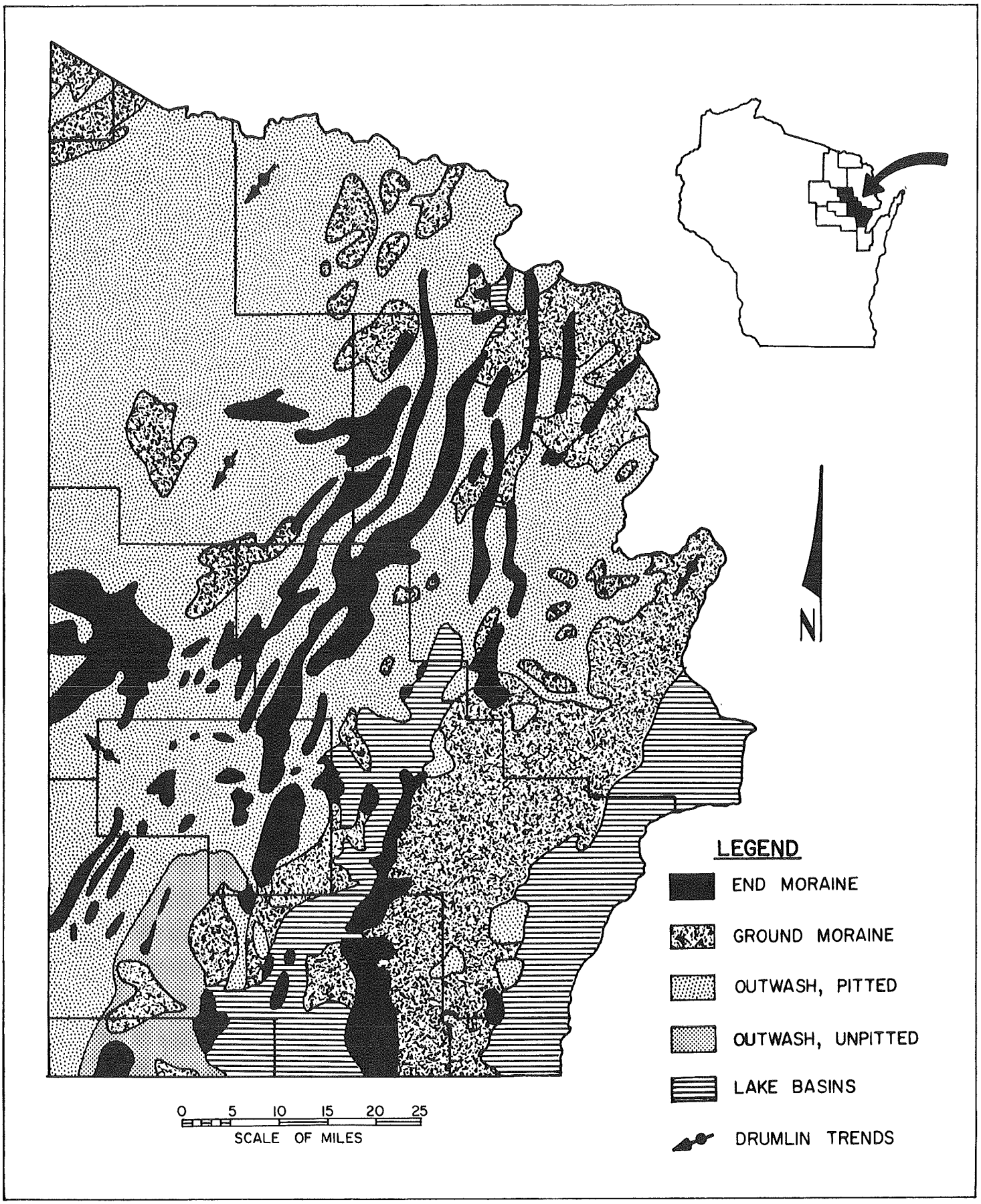


Figure 1. Glacial geology of Oconto and adjoining counties.

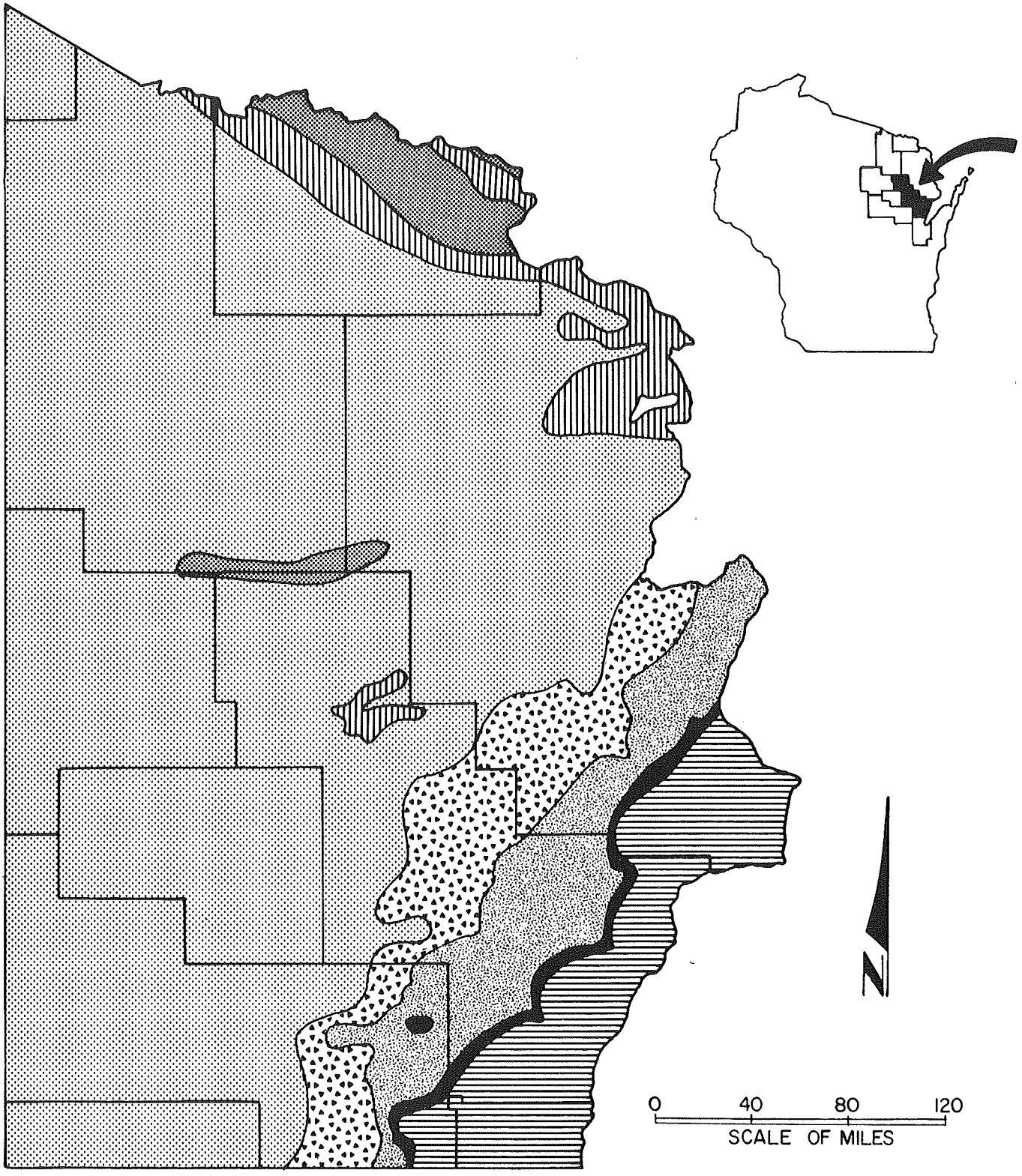
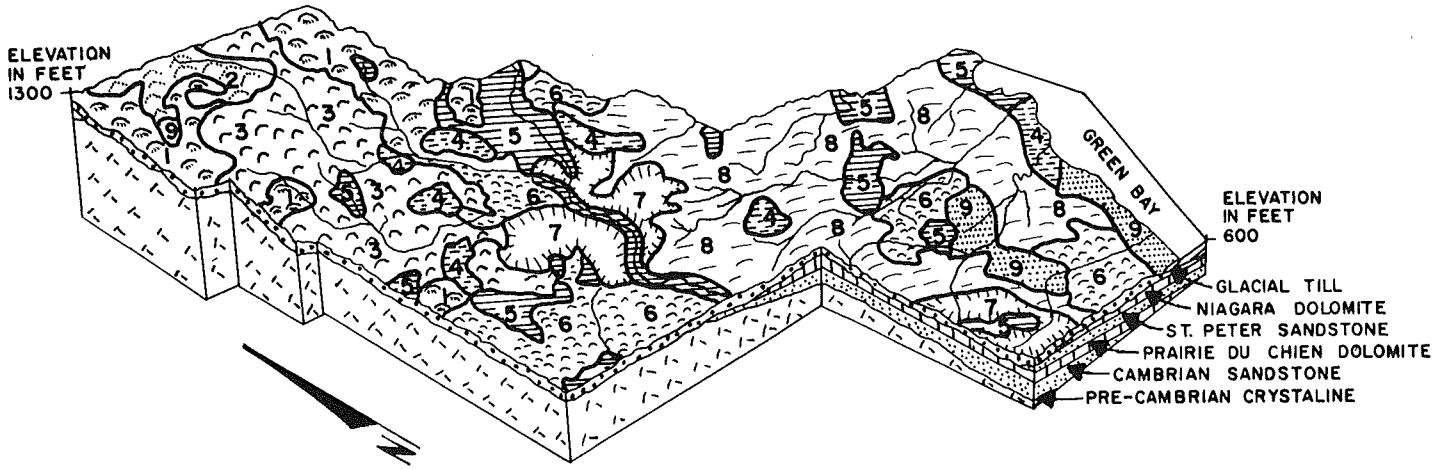


Figure 2. Bedrock geology of Oconto County.



LEGEND

1. HILLY SANDS, ACID (VILAS)
2. ROLLING SILT LOAMS (KENNAN, GOODMAN)
3. ROLLING FINE SANDY LOAMS (KENNAN, IRON RIVER)
4. LEVEL SANDS (OMEGA)
5. PEAT AND MUCK
6. ROLLING SANDS (VILAS, OMEGA)
7. PINK SANDY LOAMS, ROLLING (ONAWAY, EMMET)
8. PINK LOAMS, ROLLING (ONAWAY)
9. WET SANDS (SURING, GRANDBY)

Figure 3. General soil association map for Oconto County.

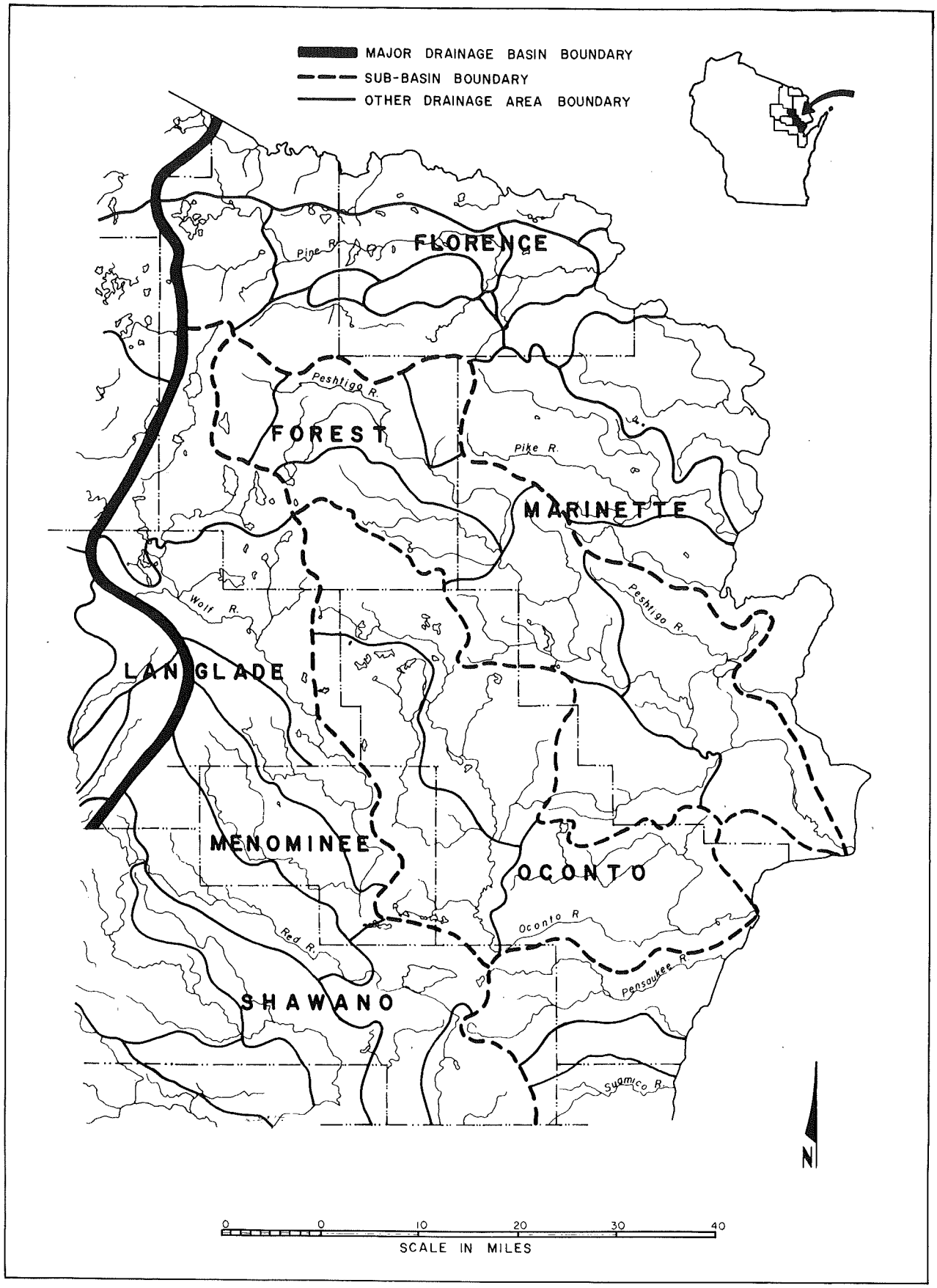


Figure 4. Location of Oconto County within the state and within major watersheds.

The Oconto River drains approximately 80 percent of the county with surface waters flowing generally to the southeast and eventually to Green Bay. Figure 5 illustrates the major drainage systems within the county. Most of the Oconto River's headwaters, as well as nearly all the county's lakes, are located in the northwestern half of the county. This area is characterized as being primarily wooded, with terminal moraine and pitted outwash the dominant land features.

The prevailing altitude of the northwestern part of the county is 1,200 to 1,600 feet above sea level, gradually falling to 600 feet at Green Bay. The Oconto River has a fall of 756 feet in a distance of 54 miles between Wabeno, a short distance north of the county, and Underhill, and a fall of 190 feet in its lower course of 33 miles between Underhill and its mouth.

Climate

The climate of Oconto County is classified Continental. Winters are long, snowy, and often severely cold. The area along Green Bay is modified slightly, due to its proximity to water. At Oconto, extremes in temperature have ranged form 105°F in July of 1936 to -31°F in February of 1938. The annual mean precipitation for the period 1930 to 1959 was 26.80 inches, with approximately 55 percent falling in the five-month period of May through September. The ground is usually snow covered from late November to early April, with a mean annual snowfall of 39.8 inches. The average date of the last freeze in the spring is May 17, and the first freeze in the fall September 27, resulting in an average frost free growing season of 133 days. Prevailing winds are from the northwest through the southwest with the exception of early spring when northeast winds dominate. April and November are the windiest months with averages of 12 miles per hour. July and August are the least windy with averages of 8 miles per hour. Table 2 provides additional climatological data. With snow melt in the spring, river flows usually increase substantially. Figure 6 illustrates monthly discharge characteristics for several rivers and the variation in lake levels for a landlocked lake.

Table 2. Climatological data for stations in and near Oconto County

	Temperatures (°F)		Precipitation (In.)	
Location	Mean	Extremes	Mean	Annual Mean Snowfall
Oconto	44.9	105 to -31	26.80	39.8
Crivitz	43.4	103 to -40	27.94	47.9
Laona	41.4	102 to -37	29.18	58.6
Antigo	43.1	101 to -33	30.56	51.9

Economy

Manufacturing is the dominant employer in Oconto County, sustaining 32 percent of the work force. Most of these businesses are linked to agriculture and forest products. Scott Paper Company of Oconto is the largest employer followed by Frigo Cheese Corp., Bond Pickle Company, Elliot Glove Company and Cruisers, a boat manufacturing firm. Agriculture and forestry collectively are the county's second largest employers, providing 18.2 percent of all jobs. Dairy products account for approximately two-thirds of all farm products sold. Recreation oriented businesses are common in the northern part of the county, and will undoubtedly increase as leisure time and improved highways make it easier for people to visit these areas. With the increasing popularity of snowmobiling, many establishments which closed in the winter now do a year around business.

Population

The 1970 census revealed a population of 25,553 which is 0.58 percent of the state's population. From 1960 to 1970 there was a net population gain of 1.8 percent compared to the state average of 11.8 percent. The 1950-1960 loss of 4.3 percent was reversed. The population density in 1970 was 25.4 people per square mile, compared to a state average of 80.8. The distribution of the 1970 population finds 28.1 percent urban and 71.9 percent rural. The only significant population change occurs with the seasonal residents who have vacation cottages in Oconto County but maintain residences elsewhere. Since 1910 Oconto County's total population has changed very little and this circumstance is expected to continue.

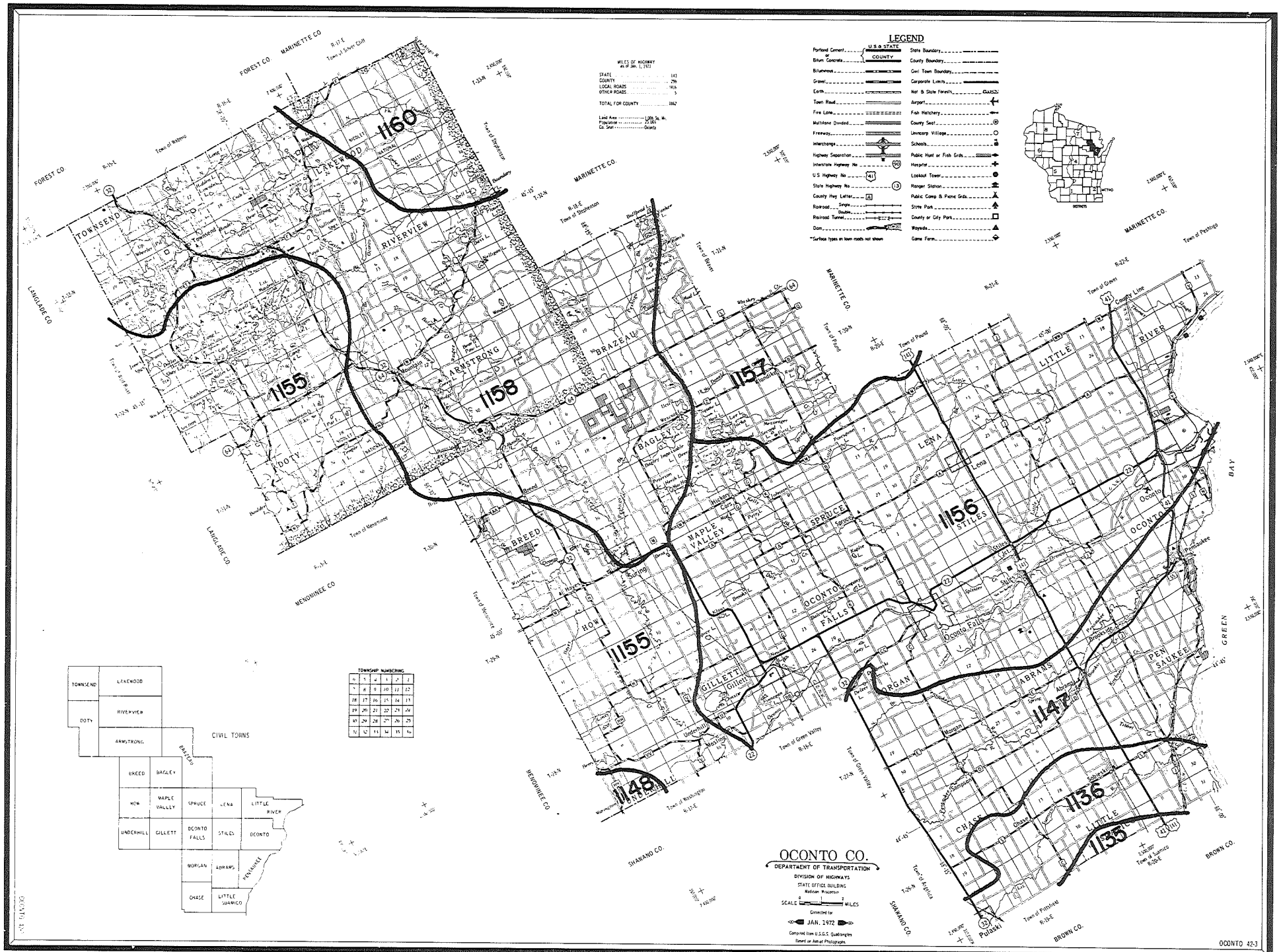
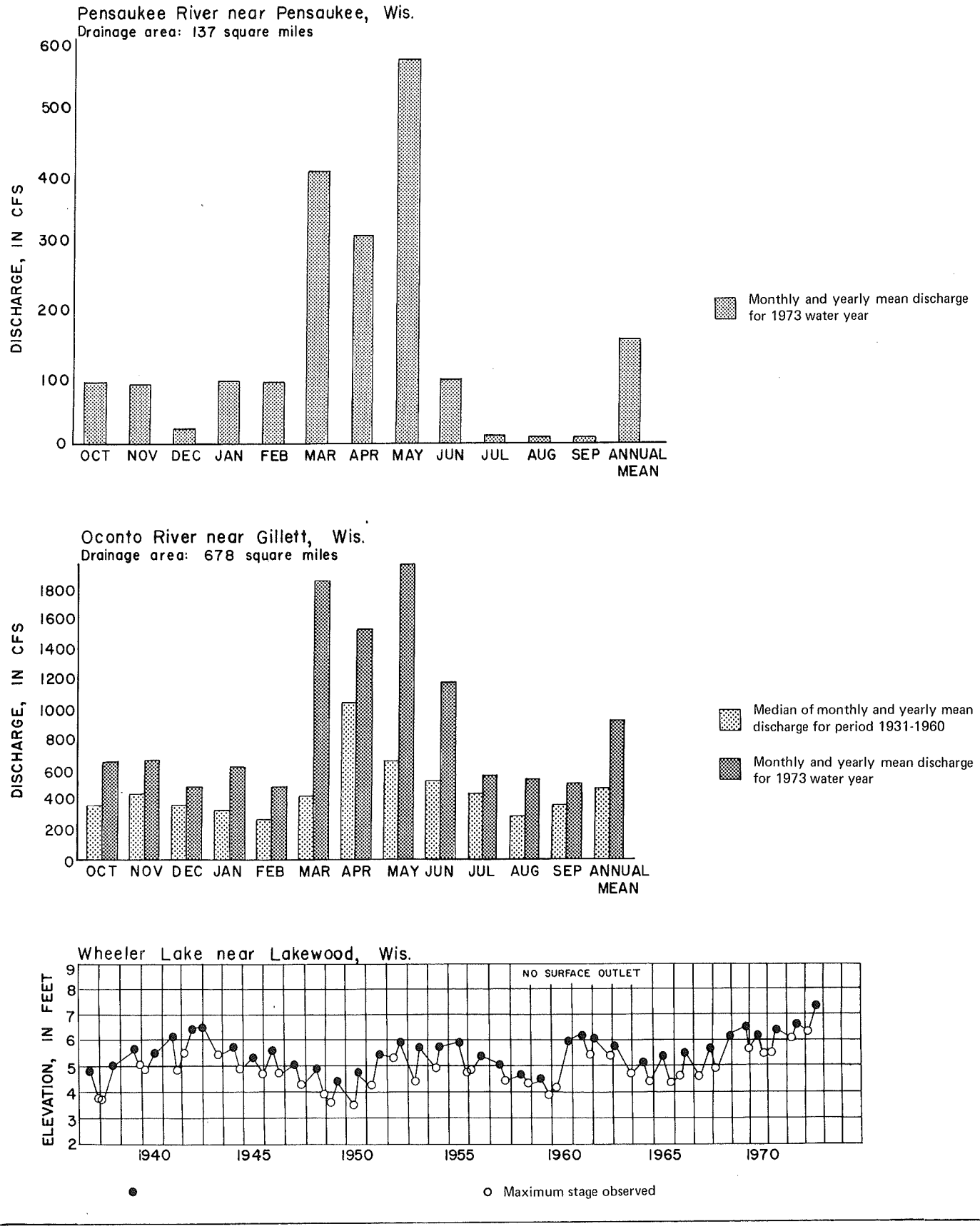


Figure 5. Map of Oconto County and major watersheds and their numbers.

Figure 6. Monthly discharge characteristics for the Oconto and Pensaukee Rivers for the water year 1973 and lake elevations for Wheeler Lake from 1937-73.



DESCRIPTION OF THE WATERS OF OCONTO COUNTY

Lakes, impoundments and streams have been defined for inventory purposes. Lakes are defined as all waters navigable, meandered or public that hold water nine out of ten years. Impoundments are those bodies of water which owe one-half or more of their maximum depth to an artificial impounding structure. The streams referred to in this inventory are those which have a permanent flow or any streams of intermittent (seasonal) flow which have significance for recreational purposes. For further definition of lake types, wetlands and other terms used to describe and classify waters, a glossary is provided near the end of this report.

A narrative description is provided for all named lakes and streams. Data on named and unnamed lakes and streams can be found in Appendices I and II.

In preparation of the maps accompanying this report, and for the purpose of locating and identifying unnamed lakes and streams, a numbering system is used based on the legal description. The number assigned refers to the section and sixteenth part of the section (40 acres) in which they are located. Unnamed streams are identified by using the terminal end of the stream as a location point. Reference must also be made to the town and range descriptions in which the unnamed water is located. An example of this system is Lake 8-6 illustrated in Figure 7. This lake is located in the sixth 40-acre parcel (NWNW) of Section 8. The first number refers to the section and the second number to the forty. On occasion the letters a, b, c, or d may follow the forty number. The letters represent a breakdown of the forty into 10-acre parcels. Each 10-acre parcel within the forty is lettered counterclockwise starting with "a" in the northeast quarter. In some instances when more than one lake occurs in the 10-acre plot an additional letter is used to further delineate lake location. Each 10-acre plot is divided into 2-1/2-acre parcels and lettered counterclockwise as a, b, c or d starting with the northeast corner of the 10-acre plot.

This same procedure is used to identify unnamed streams using the terminal end of the stream as the location point. The waters maps that accompany this report illustrate the numbering system. Where duplication of names occur, reference to the legal description as provided in the narratives or appendix must be made.

Named Lakes

Anderson Lake, T30N, R17E, Section 3

Surface Acres = 182.0, Maximum Depth = 40 feet, Secchi Disk = 7 feet

A medium hard water drainage lake having slightly acid, medium brown water of moderate transparency. The shoreline is 65 percent upland consisting of mixed hardwoods and conifers, and 35 percent wetland of the shrub bog type. The littoral zone is composed primarily of sand and muck. The fish population consists of northern pike, walleye, largemouth bass, bluegill, perch and white sucker. Waterfowl make use of this lake on their spring and fall migrations, and some nesting may also occur. The inlet and outlet is Weso Creek which is tributary to the Oconto River. Eighty dwellings and one resort are located on the shoreline. A dam at the outlet, owned by Oconto County, holds two head feet of water to stabilize the lake level. Sixty percent of the lake basin is in excess of 20 feet deep. Unimproved or difficult-type public access is available from Town of Breed land.

Archibald Lake, T32N, R15E, Section 2

Surface Acres = 429.9, Maximum Depth = 58 feet, Secchi Disk = 25 feet

A hard water seepage lake having slightly alkaline, clear water of very high transparency. The shoreline is predominantly upland consisting of mixed hardwoods and conifers, with a limited area of shrub-meadow wetland. The littoral zone is 50 percent sand, 34 percent muck, 10 percent gravel, and the balance rubble and boulder. The fish population consists of muskellunge, walleye, largemouth bass, bluegill, pumpkinseed, black crappie, rock bass, perch and white sucker. Waterfowl make light use of this lake on their spring and fall migrations. A Town of Townsend landing provides public access without parking. One hundred thirteen dwellings and one resort are located on the shoreline.

Archibald Tower Springs, T32N, R15E, Section 14

Surface Acres = 8.2, Maximum Depth = 13 feet, Secchi Disk = 11 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The entire shoreline is upland, consisting of hardwoods. The littoral area consists primarily of muck, with limited areas of sand and boulders. Perch are the only fish known to be present.

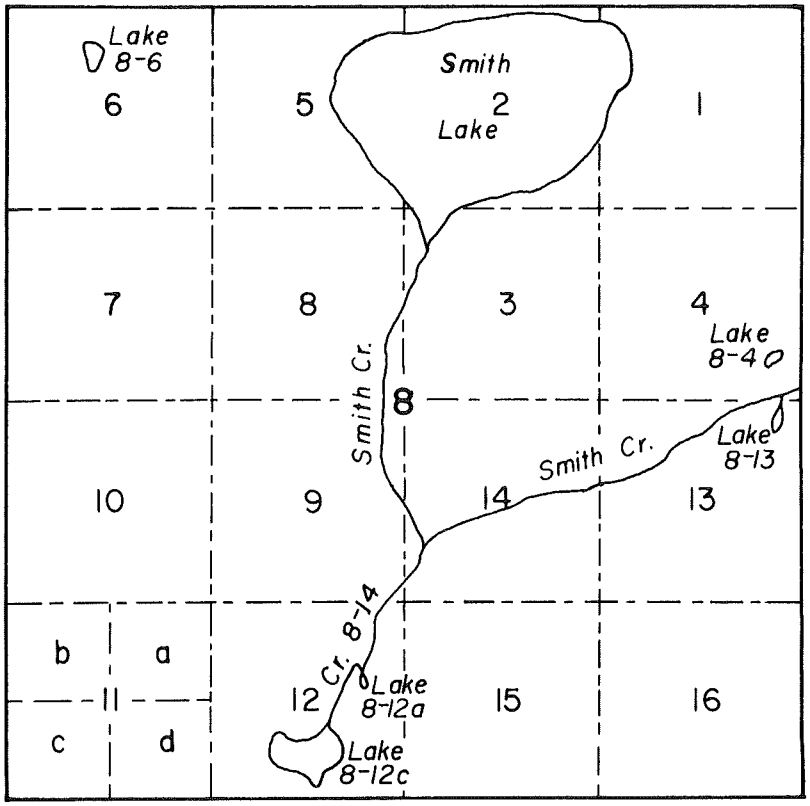


Figure 7. Example of the numbering and lettering procedure used for unnamed lakes and streams.

Waterfowl make limited use of this lake. There is an impoundment on an intermittent outlet which holds about 6 head-feet of water. Floating and submergent vegetation are moderate in density over much of the basin. Wilderness type public access is available on the north end of the lake from U. S. Forest Service land. No dwellings are located on the shoreline.

Balcom Lake, T28N, R19E, Section 17

Surface Acres = 64.5, Maximum Depth = 62 feet, Secchi Disk = 15 feet

A medium hard water seepage lake having slightly acid, clear water of high transparency. The shoreline is primarily upland, consisting of mixed hardwoods and conifers, with a limited area of marsh wetland. The littoral zone consists of muck (89 percent), sand (10 percent), and gravel (1 percent). The known fish population consists of northern pike, largemouth bass, bluegill, perch and bullhead. Waterfowl make light use of this lake on their spring and fall migrations. Forty percent of the basin is less than three feet deep. There is no public access. No dwellings are located on the shoreline.

Barnes Lake, T32, R15E, Section 16

Surface Acres = 33.9, Maximum Depth = 25 feet, Secchi Disk = 16 feet

A medium hard water seepage lake having slightly alkaline, light brown water of high transparency. The shoreline is 90 percent upland consisting of mixed hardwoods and conifers, and 10 percent wetland of open marsh. The littoral zone is 30 percent muck, 25 percent gravel, 20 percent rubble, 15 percent sand and 10 percent boulders. The known fish population consists of northern pike, largemouth bass, bluegill, black crappie and perch. Waterfowl make limited use of this lake. There is no public access. No dwellings are located on the shoreline.

Bass Lake, T31N, R18E, Section 14

Surface Acres = 16.2, Maximum Depth = 25 feet, Secchi Disk = 9 feet

A medium hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 60 percent wetland of coniferous bog and 40 percent upland consisting of mixed hardwoods and conifers. The littoral zone consists of sand (40 percent), muck (40 percent), and marl (20 percent). The known fish population is comprised of largemouth bass, bluegill and perch. Waterfowl make limited use of this lake. The Town of Brazeau provides public access without parking. Two dwellings are located on the shoreline.

Bass Lake, T32N, R15E, Section 4

Surface Acres = 148.8, Maximum Depth = 50 feet, Secchi Disk = 15 feet

A medium hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is primarily upland, consisting of mixed hardwoods and conifers, with a limited area of shrub-bog wetland. The littoral zone is composed of 80 percent sand, 15 percent muck, and 5 percent gravel. The fish population consists of walleye, largemouth bass, bluegill, black crappie, rock bass, perch, white sucker and forage species. Waterfowl make limited use of this lake. Fifty percent of the basin is in excess of 20 feet deep. A U.S. Forest Service beach and picnic grounds are located on the east side of the lake as well as a boat landing with parking. Fifty dwellings are located on the shoreline.

Bass Lake, T32N, R17E, Section 23

Surface Acres = 12.3, Maximum Depth 11 feet, Secchi Disk = 10 feet

A medium hard water drained lake having neutral, clear water of moderate transparency. The outlet flows to Crooked Lake. The shoreline is 70 percent upland consisting of mixed hardwoods and conifers, and 30 percent wetland of marsh and shrub-bog. The littoral zone is 79 percent muck, 20 percent sand and 1 percent gravel. The fish population is composed of northern pike, largemouth bass, bluegill, black crappie, pumpkinseed, brown bullhead and white sucker. Waterfowl make limited use of this lake. Public access without parking is provided by a Town of Riverview landing. Sixteen dwellings and one resort are located on the shoreline.

Bear Lake, T33N, R16E, Section 21

Surface Acres = 77.5, Maximum Depth = 16 feet, Secchi Disk = greater than 16 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 50 percent upland consisting of hardwoods, and 50 percent wetland composed primarily of swamp conifer. The littoral zone is 75 percent marl, 20 percent muck, with the balance sand, gravel and rubble. The fish population consists of northern pike, muskellunge, largemouth bass and panfish. Waterfowl make limited use of this lake on their spring and fall migrations. The lake has three inlets from unnamed spring ponds and the outlet flows to Munger Lake. Submergent vegetation is moderate in density in parts of the lake basin. Navigable water type public access is available from Munger Lake. Sixteen dwellings are located on the shoreline.

Bear Paw Lake, T31N, R17E, Section 8

Surface Acres = 48.5, Maximum Depth = 20 feet, Secchi Disk = 11 feet

A soft water seepage lake having slightly acid, clear water of moderate transparency. The shoreline is 75 percent upland, consisting of mixed hardwoods and conifers, with the balance wetland of coniferous swamp. The littoral zone is 60 percent muck, 30 percent silt, 5 percent sand and 5 percent detritus. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, bluegill, black crappie and pumpkinseed. A boy scout camp, including a complex of buildings and several campsites, is located on the shoreline. Public access with parking is provided by the U. S. Forest Service on the east end of the lake.

Beaver Lake, T28N, R19E, Section 11

Surface Acres = 8.2, Maximum Depth = 22 feet, Secchi Disk = 5 feet

A hard water drained lake having slightly alkaline, medium brown water of low transparency. The shoreline is 70 percent wetland, consisting primarily of swamp hardwoods, and 30 percent upland of hardwoods and cleared land. The entire littoral zone is muck. Northern pike and bullhead inhabit the lake. A few years ago several other warm water fish species were also present, indicating that winterkill may be a problem. Waterfowl make limited use of this lake. The outlet flows to Kelly Brook. There is no public access. One dwelling is located on the shoreline.

Benz Lake, T29N, R18E, Section 17

Surface Acres = 11.3, Maximum Depth = 8 feet, Secchi Disk = 4 feet

A soft water seepage lake having slightly acid, medium brown water of low transparency. The shoreline is entirely wetland of coniferous bog. The entire littoral zone is composed of muck. Waterfowl make limited use of this lake. No game fish were noted, indicating a winterkill situation. Floating vegetation is moderate in density over 30 percent of the basin. There is no public access. No dwellings are located on the shoreline.

Berry Lake, T28N, R17E, Section 19

Surface Acres = 201.0, Maximum Depth = 27 feet, Secchi Disk = not determined

A medium hard water seepage lake having slightly acid, clear water of high transparency. The shoreline is primarily upland, with a very limited area of wetland. The littoral zone is 70 percent sand and 30 percent muck. Waterfowl make limited use of this lake. The known fish population consists of largemouth bass, bluegill, black crappie, perch and white sucker. Public access with limited parking is available from a Town of Underhill landing. One hundred and five dwellings and a private campground are located on the shoreline.

Big Gillet Lake, T32N, R16E, Section 18

Surface Acres = 34.2, Maximum Depth = 26 feet, Secchi Disk = 16 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The inlet and outlet is the First South Branch of the Oconto River. The shoreline is 70 percent upland, consisting primarily of hardwoods with a few conifers, and 30 percent wetland of shrub and coniferous bog. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, walleye, northern pike, bluegill, black crappie, pumpkinseed, white sucker, bullhead and forage species. Fifty percent of the lake is in excess of 20 feet deep. Navigable water type public access is available via the outlet from Little Gillett Lake. Three dwellings and one resort are located on the shoreline.

Big Island Lake, T32N, R15E, Section 24

Surface Acres = 36.8, Maximum Depth = 25 feet, Secchi Disk = 14 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The Second South Branch of the Oconto River forms the inlet and outlet. The shoreline is 60 percent upland consisting of mixed hardwoods and conifers and 40 percent wetland. Littoral materials are 45 percent muck, 40 percent marl, 10 percent sand and 5 percent gravel. Waterfowl make limited use of this lake. The known fish population consists of northern pike, largemouth bass, bluegill, pumpkinseed, rock bass, and white sucker. Public access without parking is provided by the Town of Doty. Ten dwellings one resort and one boat rental are located on the shoreline.

Binder Lake, T33N, R16E, Section 19

Surface Acres = 22.0, Maximum Depth = 17 feet, Secchi Disk = 11 feet

A hard water seepage lake having slightly alkaline, clear water of moderate transparency. The shoreline is primarily upland, consisting of hardwoods and a few conifers, with a small area of marsh wetland. The littoral zone is 50 percent sand, 24 percent muck, 20 percent gravel, 5 percent rubble, and 1 percent boulder. Waterfowl make limited use of this lake. The known fish population consists of stunted bluegill and pumpkinseed. These is no public access. One dwelling is located on the shoreline.

Boot Lake, T32N, R15E, Section 9

Surface Acres = 262.7, Maximum Depth = 40 feet, Secchi Disk = 14 feet

A medium hard water seepage lake having slightly alkaline, clear water of high transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. The littoral zone is 65 percent sand, 20 percent muck, 10 percent rubble and 5 percent gravel. Waterfowl make limited use of this lake on their spring and fall migrations. The fish population consists of walleye, northern pike, largemouth bass, smallmouth bass, bluegill, pumpkinseed, rock bass and perch. The U. S. Forest Service provides public access with parking. Forty dwellings, one resort, and a Forest Service campground with 36 units are located on the shoreline.

Boulder Lake, T31N, R15E, Section 21

Surface Acres = 362.3, Maximum Depth = 11 feet, Secchi Disk = greater than 11 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet flows to the South Branch of the Oconto River. The shoreline is 98 percent upland, and 2 percent wetland. The littoral zone is 60 percent sand, 20 percent gravel and 15 percent muck, with the balance gravel, boulder and marl. Waterfowl make limited use of this lake on their spring and fall migrations. The fish population consists of walleye, largemouth bass, smallmouth bass, bluegill, pumpkinseed and perch. Public access with parking and public access without parking is available. Forty-nine dwellings, two resorts, two private campgrounds, and a U. S. Forest Service campground with 53 units are located on the shoreline. A dam at the outlet maintains a head of one foot.

Boundary Lake, T32N, R17E, Section 12

Surface Acres = 37.1, Maximum Depth = 20 feet, Secchi Disk = not determined

A hard water drained lake having slightly alkaline, clear water. The shoreline is 90 percent upland and 10 percent wetland. The littoral zone is composed of 75 percent sand, 15 percent muck and 10 percent detritus. Waterfowl make limited use of this lake. The known fish population consists of northern pike, largemouth bass, smallmouth bass, bluegill, pumpkinseed, rock bass, black crappie, perch and bullhead. The Town of Riverview provides public access without parking. Forty dwellings are located on the shoreline.

Bowman Lake, T33N, R15E, Section 32

Surface Acres = 10.8, Maximum Depth = 39 feet, Secchi Disk = 18 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The outlet flows to Wapato Creek. The shoreline is 80 percent upland of mixed hardwoods and conifers and 20 percent wetland of swamp hardwoods and conifers. The littoral zone is 60 percent muck, 20 percent gravel, 10 percent rubble and 10 percent sand. Waterfowl make limited use of this lake. The known fish population consists of largemouth bass, northern pike, bluegill, pumpkinseed, perch and forage species. There is no public access. Two dwellings are located on the shoreline.

Brooks Lake, T29N, R18E, Section 34

Surface Acres = 8.6, Maximum Depth = 15 feet, Secchi Disk = 2 feet

A very hard water drainage lake having slightly alkaline, dark brown water of low transparency. The outlet stream flows to Daley Creek. The shoreline is 80 percent wetland of shrub meadow and 20 percent upland, consisting of hardwoods. The entire littoral zone is composed of muck. Waterfowl make limited use of this lake. The known fish population consists of carp, which are causing a turbidity problem. There is no public access. No dwellings are located on the shoreline.

Bullfrog Lake, T33N, R16E, Section 26

Surface Acres = 15.5, Maximum Depth = 19 feet, Secchi Disk = 10 feet

A medium hard water seepage lake having slightly alkaline, clear water of moderate transparency. The shoreline is primarily upland, consisting of hardwoods and some open land, with a limited area of marsh wetland. The littoral zone is 40 percent sand, 25 percent muck, 25 percent gravel and 10 percent rubble. Submergent aquatic vegetation is moderate in density. Waterfowl make limited use of this lake. A population of stunted pumpkinseeds is known to exist. There is no public access. No developments are located on the shoreline.

Camp Lake, T32N, R16E, Section 7

Surface Acres = 14.7, Maximum Depth = 18 feet, Secchi Disk = 13 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 60 percent upland, consisting mostly of hardwoods with a few conifers, and 40 percent coniferous bog wetland. The littoral zone is composed primarily of muck and marl, with a very limited area of sand. Aquatic vegetation is moderate in density in the littoral areas. Waterfowl make limited use of this lake. The known fish population consists of northern pike, largemouth bass, bluegill and black crappie. There is no public access. One resort is located on the shoreline.

Camp Four Lake, T32N, R16E, Section 19

Surface Acres = 23.7, Maximum Depth = 18 feet, Secchi Disk = greater than 18 feet

A medium hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is primarily upland, consisting of hardwoods and some open land, with a small area of shrub bog wetland. The littoral zone is 75 percent muck, 20 percent sand and 5 percent gravel. Waterfowl make limited use of this lake. The known fish population consists of largemouth bass and bluegill. Wilderness type public access is available from U. S. Forest Service land on the east end of the lake. Three dwellings are located on the shoreline.

Cave Lake, T32N, R15E, Section 15

Surface Acres = 21.3, Maximum Depth = 34 feet, Secchi Disk = 16 feet

A medium hard water seepage lake having alkaline, clear water of high transparency. The entire shoreline is upland consisting of mixed hardwoods and conifers. The littoral zone is 60 percent muck, 20 percent rubble, 15 percent sand and 5 percent boulders. Waterfowl make limited use of this lake. The known fish population consists of largemouth bass and bluegill. Public access of the wilderness type is available from U. S. Forest Service land on the east end of the lake. No dwellings are located on the shoreline.

Cedar Lake, T32N, R15E, Section 12

Surface Acres = 3.9, Maximum Depth = 25 feet, Secchi Disk = 20 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet is the Second South Branch of the Oconto River. The shoreline is primarily upland, consisting of hardwoods, with a small area of shrub-meadow wetland. Littoral materials are composed of 30 percent silt, 20 percent marl, 15 percent sand, 10 percent rubble, 10 percent boulders, 10 percent muck and 5 percent gravel. Waterfowl make limited use of this lake. The known fish population consists of largemouth bass and bluegill, and other species are probably present. There is no public access. No dwellings are located on the shoreline.

Cedar Lake, T32N, R17E, Section 12

Surface Acres = 19.6, Maximum Depth = 5 feet, Secchi Disk = greater than 5 feet

A soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is entirely wetland, consisting primarily of shrub and open meadow. The littoral zone is 79 percent muck, 20 percent sand and 1 percent gravel. Waterfowl make limited use of this lake. The lake has no game fish population. Floating and submergent vegetation are moderate in density in parts of the basin. Wilderness type public access is available from U. S. Forest Service land. One dwelling is located on the shoreline. Winterkill conditions probably prevail.

Chain Lake, T33N, R16E, Section 31

Surface Acres = 81.4, Maximum Depth = 50 feet, Secchi Disk = 12 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet flows to McCaslin Brook. The shoreline is 90 percent upland, consisting of mixed hardwoods and conifers, and 10 percent wetland of open bog. Littoral materials are 43 percent sand, 20 percent gravel, 20 percent muck, and 15 percent silt, with the balance rubble and boulders. Waterfowl make limited use of this lake. The fish population consists of northern pike, largemouth bass, bluegill, black crappie, rock bass, perch and forage species. The Town of Doty provides public access without parking. Forty-eight dwellings and one resort are located on the shoreline.

Chicken Crop Lake, T32N, R15E, Section 15

Surface Acres = 28.0, Maximum Depth = 19 feet, Secchi Disk = 11 feet

A medium hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is primarily upland, consisting of mixed hardwoods and conifers, with a limited area of marsh wetland. The littoral zone is 75 percent muck, 10 percent sand, 10 percent rubble and 5 percent gravel. Waterfowl make limited use of this lake on their spring and fall migrations. Perch are known to inhabit the lake and other species of fish may also be present. Floating and submergent vegetation are moderate in density in the littoral areas. There is no public access. No dwellings are located on the shoreline.

Chicken Foot Lake, T32N, R15E, Section 15

Surface Acres = 49.8, Maximum Depth = 20 feet, Secchi Disk = 15 feet

A medium hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is 98 percent upland, consisting of hardwoods, and 3 percent wetland marsh. The littoral zone is 60 percent muck, 20 percent sand, 10 percent rubble, 5 percent gravel and 5 percent boulders. Waterfowl make limited use of this lake. The known fish population consists of northern pike, largemouth bass, bluegill, rock bass, perch and forage species. Floating vegetation is moderate in density in most of the lake basin. Wilderness type public access is available from U. S. Forest Service land on the north side of the lake. Six dwellings are located on the shoreline.

Christie Lake, T28N, R18E, Section 19

Surface Acres = 387.0, Maximum Depth = 10 feet, Secchi Disk = not determined

A hard water drained lake having slightly alkaline, light brown water. The shoreline is entirely wetland of shrub bog. The littoral zone is composed of muck. Migratory waterfowl and nesting waterfowl make extensive use of this lake. Furbearers, especially muskrat, are common. The lake has no game fish population due to recurring winterkill. Emergent aquatic vegetation is moderate in density over 60 percent of the lake basin. Unimproved or difficult type public access is provided by a Town of Gillett right-of-way. No dwellings are located on the shoreline. A dam having a head of 1 foot is located at the outlet.

Chute Pond, T31N, R16E, Section 36

Surface Acres = 417.0, Maximum Depth = 18 feet, Secchi Disk = 5 feet

A hard water impoundment (drainage lake) on the North Branch of the Oconto River having slightly alkaline, light brown water of low transparency. The shoreline is 100 percent upland, consisting of mixed hardwoods and conifers. The littoral zone is 48 percent muck, 40 percent sand, 5 percent gravel, 5 percent rubble, and 2 percent boulder. Waterfowl make moderate use of this flowage on their spring and fall migrations. The fish population consists of northern pike, walleye, muskellunge, largemouth bass, panfish and forage species. Oconto County provides public access with parking. One hundred eighty-four dwellings, two resorts, two private campgrounds, one boat rental, and a county campground with 100 units are located on the shoreline. The dam maintains a head of 13 feet and is owned by Oconto County.

Company Lake, T28N, R19E, Section 9

Surface Acres = 15.3, Maximum Depth = 49 feet, Secchi Disk = 9 feet

A medium hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 70 percent upland, consisting of pasture, and 30 percent wetland of meadow and marsh. The littoral zone is 70 percent muck and 20 percent sand, with the balance gravel, rubble and boulders. Waterfowl make limited use of this lake. Forage species were the only fish noted, but game fish are probably present. Over 50 percent of the lake basin is in excess of 20 feet deep. There is no public access. No dwellings are located on the shoreline.

Cooley Lake, T29N, R18E, Section 2

Surface Acres = 52.0, Maximum Depth = 43 feet, Secchi Disk = 6 feet

A hard water drainage lake having slightly alkaline, medium brown water of moderate transparency. The entire shoreline is wetland of shrub bog. The entire littoral zone is muck. Waterfowl make limited use of this lake on their spring and fall migrations. The known fish population consists of northern pike, pumpkinseed and perch. Wilderness type public access is available from county land. No developments are located on the shoreline.

Crab Lake, T33N, R16E, Section 17

Surface Acres = 8.6, Maximum Depth = 10 feet, Secchi Disk = greater than 10 feet

A medium hard water seepage lake having slightly alkaline, clear water of moderate transparency. The shoreline is 80 percent upland and 20 percent wetland. Littoral materials consist of 90 percent muck and 10 percent sand. Waterfowl make limited use of this lake. The lake is reported to have a stunted panfish population. There is no public access. One dwelling is located on the shoreline.

Crooked Lake, T32N, R17E, Section 22

Surface Acres = 143.3, Maximum Depth = 37 feet, Secchi Disk = 10 feet

A medium hard water drainage lake having slightly acid, clear water of moderate transparency. The shoreline is 80 percent upland, consisting of hardwoods and conifers, and 20 percent wetland of swamp conifer. The littoral zone is 50 percent sand and 50 percent muck. Waterfowl make limited use of this lake. The outlet is Waupee Creek. The fish population consists of northern pike, largemouth bass, bluegill, black crappie, pumpkinseed, brown bullhead and white sucker. Public access with parking is provided by the Town of Riverview. One hundred fourteen dwellings and three resorts are located on the shoreline. A water control structure having a head of 2 feet stabilizes the water level.

Deadman Lake, T32N, R15E, Section 22

Surface Acres = 36.9, Maximum Depth = 47 feet, Secchi Disk = 13 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The shoreline is entirely upland, consisting of hardwoods and a few conifers. The littoral zone is 35 percent muck, 25 percent sand, 15 percent rubble, 10 percent boulders, 10 percent silt and 5 percent gravel. The outlet stream is tributary to the Second South Branch of the Oconto River. The known fish population consists of trout, which are planted by property owners, and panfish. There is no public access. Twenty-three dwellings are located on the shoreline.

Deep Lake, T32N, R15E, Section 12

Surface Acres = 3.2, Maximum Depth = 20 feet, Secchi Disk = greater than 20 feet

A hard water drainage lake having slightly alkaline, clear water of very high transparency. The shoreline is 90 percent upland, consisting of hardwoods and cleared land, and 10 percent wetland of coniferous bog. The entire littoral zone is muck. The outlet stream flows to Swanson's Lake. The fish population consists of northern pike, largemouth bass, bluegill and perch. Public access of the wilderness type is available from U. S. Forest Service land on the south end of the lake. No developments are located on the shoreline.

Deer Lake, T30N, R18E, Section 26

Surface Acres = 26.5, Maximum Depth = 5 feet, Secchi Disk = greater than 5 feet

A hard water spring lake having alkaline, clear water. The shoreline is 90 percent wetland of coniferous bog, and 10 percent upland, consisting of hardwoods and conifers. Littoral materials are 98 percent silt and 2 percent sand. Waterfowl make use of this lake on their spring and fall migrations. The fish population consists of perch and forage species. Submergent aquatic vegetation is found in about 35 percent of the lake basin. There is no public access. No dwellings are located on the shoreline.

Dell Lake, T32N, R17E, Section 12

Surface Acres = 34.5, Maximum Depth = 10 feet, Secchi Disk = 2 feet

A very soft water seepage lake having slightly acid, medium brown water of low transparency. The shoreline is primarily wetland of coniferous bog, with a limited area of upland consisting of mixed hardwoods and conifers. The littoral zone is primarily muck. Waterfowl make limited use of this lake. The only fish known to be present are bullheads. Floating aquatic vegetation is moderate in density in 35 percent of the lake basin. Unimproved or difficult public access is available from a logging road on U. S. Forest Service land. One dwelling is located on the shoreline.

Delzer Lake, T27N, R19E, Section 6

Surface Acres = 7.5, Maximum Depth = 35 feet, Secchi Disk = 11 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The entire shoreline is upland, consisting of hardwoods (60 percent), cultivated land (30 percent) and conifer (10 percent). The littoral zone is primarily muck, but a small area of rubble is present from the dumping of field stone in the lake. Waterfowl make limited use of this lake. The known fish population consists of panfish. The lack of predator species is reportedly due to winterkill. There is no public access. One dwelling is located on the shoreline.

Dollar Lake, T32N, R15E, Section 17

Surface Acres = 1.9, Maximum Depth = 13 feet, Secchi Disk = 4 feet

A very soft water seepage lake having slightly acid, light brown water of low transparency. The immediate shoreline is wetland of conifer bog. The entire littoral zone is muck. Waterfowl make limited use of this lake. No information regarding a fish population is available, however, forage species may be present. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Dombrowski Lake, T28N, R19E, Section 32

Surface Acres = 4.2, Maximum Depth = 19 feet, Secchi Disk = 2 feet

A medium hard water seepage lake having slightly acid, dark brown water of low transparency. The shoreline is 50 percent upland, consisting of hardwoods and pasture, and 50 percent wetland of coniferous bog. The littoral zone is composed of muck. Waterfowl make limited use of this lake. Data on the fish population is lacking, although forage species may be present. There is no public access. No dwellings are located on the shoreline.

East Twin Lake, T32N, R15E, Section 29

Surface Acres = 5.0, Maximum Depth = 23 feet, Secchi Disk = 5 feet

A very soft water seepage lake having slightly acid, light brown water of low transparency. The shoreline is primarily upland consisting of mixed hardwoods and conifers, with the balance wetland of coniferous bog. Littoral materials are 85 percent muck and 15 percent boulders. Waterfowl make limited use of this lake. The fish population consists of largemouth bass and panfish. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Explosion Lake, T33N, R15E, Section 29

Surface Acres = 30.5, Maximum Depth = 27 feet, Secchi Disk = 12 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet flows to Reservoir Pond. The shoreline is primarily upland, consisting of hardwoods, with a limited area of open bog wetland. Littoral materials are primarily muck and marl, with a small area of sand. Waterfowl make limited use of this lake. The fish population consists of northern pike, largemouth bass, and panfish. Navigable water type public access is available from Reservoir Pond. Nine dwellings are located on the shoreline.

Fanny Lake, T32N, R15E, Section 7

Surface Acres = 18.6, Maximum Depth = 18 feet, Secchi Disk = 8 feet

A very soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 70 percent upland, consisting of hardwoods, and 30 percent wetland of coniferous bog. The littoral zone is 90 percent muck and 10 percent sand. Waterfowl make limited use of this lake. The known fish population consists of panfish. Wilderness type public access is available from U. S. Forest Service land. No developments are located on the shoreline.

Far Lake, T32N, R15E, Section 12

Surface Acres = 3.4, Maximum Depth = 22 feet, Secchi Disk = 17 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet flows to Deep Lake. The shoreline is 90 percent upland, consisting of hardwoods, and 10 percent wetland of coniferous bog. The entire littoral zone is muck. Waterfowl make limited use of this lake. The known fish population is composed of largemouth bass and bluegill. Public access of the wilderness type is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Farr Lake, T31N, R17E, Section 15

Surface Acres = 12.9, Maximum Depth = 14 feet, Secchi Disk = 8 feet

A soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 50 percent upland, consisting of mixed hardwoods and conifers, and 50 percent wetland of coniferous bog. The entire littoral zone is muck. Waterfowl make limited use of this lake. Submergent aquatic vegetation is moderate in density over 60 percent of the lake basin. Information on the fish population is lacking however, largemouth bass and/or panfish may be present. The unimproved or difficult type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Finnegan Lake, T28N, R18E, Section 28

Surface Acres = 17.6, Maximum Depth = 38 feet, Secchi Disk = 7 feet

A medium hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 85 percent upland, consisting of hardwoods and conifers, and 15 percent wetland of shrub meadow. The littoral zone is 80 percent sand, 15 percent gravel, and 5 percent muck. Waterfowl make limited use of this lake. The fish population is known to include walleye and perch. Three dwellings are located on the shoreline. The Town of Gillett provides public access with parking.

First Lake, T30N, R19E, Section 33

Surface Acres = 8.5, Maximum Depth = 24 feet, Secchi Disk = 7 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 85 percent upland and 15 percent wetland. The littoral zone is primarily muck, with limited areas of sand, gravel and rubble. Waterfowl make limited use of this lake. No data are available regarding the fish population, however, largemouth bass and/or panfish may be present. There is no public access. No dwellings are located on the shoreline.

Flower Lake, T32N, R17E, Section 13

Surface Acres= 33.6, Maximum Depth = 6 feet, Secchi Disk = greater than 6 feet

A soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 70 percent wetland and 30 percent upland. Littoral materials consist of muck (58 percent), sand (40 percent) and rubble (2 percent). Waterfowl make limited use of this lake. The fish population consists of forage species. Winterkill is probable. A channel connects this lake to unnamed Lake 13-10 (T32N, R17E). Wilderness type public access is available from U. S. Forest Service land. One dwelling is located on the shoreline.

French Lake, T32N, R15E, Section 13

Surface Acres = 28.9, Maximum Depth = 29 feet, Secchi Disk = 14 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The First South Branch of the Oconto River flows through this lake. The shoreline is 90 percent upland, consisting of hardwoods, and 10 percent wetland of coniferous bog. The littoral zone is primarily muck, with small areas of sand and rubble. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, northern pike, bluegill, black crappie, green sunfish and perch. There is no public access. Seventeen dwellings are located on the shoreline.

Frog Lake, T31N, R18E, Section 1

Surface Acres = 6.3, Maximum Depth = 19 feet, Secchi Disk = 10 feet

A very soft water seepage lake having acid, clear water of moderate transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. The entire littoral zone is composed of muck. Waterfowl make limited use of this lake. No information is available regarding the fish population, however, largemouth bass and/or panfish may be present. There is no public access. Six dwellings are located on the shoreline.

Funk Lake, T30N, R18E, Section 23

Surface Acres = 30.5, Maximum Depth = 18 feet, Secchi Disk = 8 feet

A hard water drainage lake having slightly alkaline, clear water of moderate transparency. Bagley Creek flows through this lake. The shoreline is 70 percent wetland of open bog, and 30 percent upland consisting of hardwoods. The entire littoral zone is muck. Waterfowl make moderate use of this lake on their spring and fall migrations. The known fish population consists of northern pike, largemouth bass and panfish. Floating and submergent vegetation are moderate in density over most of the littoral area. There is no public access. No dwellings are located on the shoreline.

Gaffney Lake, T31N, R18E, Section 12

Surface Acres = 9.3, Maximum Depth = 14 feet, Secchi Disk = 5 feet

A medium hard water seepage lake having neutral, light brown water of low transparency. The shoreline is 70 percent upland, consisting of hardwoods and conifers, and 30 percent wetland of open bog. Littoral materials consist of 75 percent muck, 15 percent detritus and 10 percent sand. Waterfowl make limited use of this lake. Submergent vegetation is moderate in density over 80 percent of the lake basin. No data is available regarding the fish population, however, largemouth bass and/or panfish may be present. There is no public access. Four dwellings are located on the shoreline.

Gilkey Lake, T32N, R17E, Section 14

Surface Acres = 19.9, Maximum Depth = 6 feet, Secchi Disk = greater than 6 feet

A medium hard water drained lake having slightly acid, clear water of moderate transparency. The outlet flows to Crooked Lake. The shoreline is 60 percent wetland, primarily cattail marsh, and 40 percent upland of mixed hardwoods and conifers. Littoral materials are 85 percent muck and 15 percent sand. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, bluegill, black crappie, and perch. Submergent vegetation is moderate in density over 35 percent of the lake basin. The Town of Riverview provides public access without parking. Sixteen dwellings are located on the shoreline.

Gluckie Lake, T33N, R15E, Section 24

Surface Acres = 27.6, Maximum Depth = 8 feet, Secchi Disk = 5 feet

A medium hard water seepage lake having neutral, light brown water of low transparency. The entire shoreline is wetland of coniferous bog. Littoral materials consist entirely of muck. Waterfowl make limited use of this lake. Data regarding the fish population is lacking, however, panfish may be present. Winterkill is probable. There is unimproved or difficult public access available from U. S. Forest Service land. No dwellings are located on the shoreline.

Gray Lake, T28N, R19E, Section 29

Surface Acres = 10.5, Maximum Depth = 21 feet, Secchi Disk = 10 feet

A hard water spring lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 90 percent upland, consisting of mixed hardwoods and conifers, and 10 percent wetland of shrub meadow. Littoral materials consist primarily of muck, with a limited area of sand. The outlet flows to the Oconto River. Panfish are known to be present and largemouth bass may also be present. Waterfowl make limited use of this lake. Floating and submergent aquatic vegetation are moderate in density in the littoral areas. There is no public access. One dwelling is located on the shoreline.

Green Lake, T31N, R16E, Section 31

Surface Acres = 22.4, Maximum Depth = 25 feet, Secchi Disk = 8 feet

A hard water seepage lake having slightly alkaline, clear water of moderate transparency. The shoreline is 92 percent upland, consisting of hardwoods and conifers, and 8 percent wetland of coniferous and hardwood swamp species. The littoral zone is 45 percent sand, 30 percent muck, 15 percent gravel, and 10 percent rubble. Waterfowl make limited use of this lake. The known fish population consists of walleye, largemouth bass, bluegill, pumpkinseed and bullhead. Public access with parking is available. Fifty-nine dwellings are located on the shoreline.

Grignon Lake, T29N, R17E, Section 7

Surface Acres = 25.6, Maximum Depth = 17 feet, Secchi Disk = 8 feet

A hard water drainage lake having slightly acid, medium brown water of moderate transparency. The entire shoreline is wetland of shrub meadow. Littoral materials are 80 percent muck and 20 percent sand. Waterfowl make limited use of this lake. The outlet, Pecore Creek, flows to the Oconto River. The known fish population consists of northern pike, largemouth bass and panfish. Public access with parking is provided by the Town of How. No dwellings are located on the shoreline.

Grindle Lake, T32N, R17E, Section 21

Surface Acres = 42.0, Maximum Depth = 23 feet, Secchi Disk = 13 feet

A very soft water seepage lake having slightly acid, clear water of high transparency. The shoreline is 95 percent upland, consisting of mixed hardwoods and conifers, and 5 percent wetland or shrub bog. The littoral zone is 70 percent sand, 25 percent rubble and 5 percent gravel. Waterfowl make limited use of this lake. Submergent aquatic vegetation is moderate in density in most of the littoral area. The Town of Riverview provides public access with parking and a site without parking. Forty-two dwellings are located on the shoreline.

Hagen Lake, T32N, R16E, Section 20

Surface Acres = 26.8, Maximum Depth = 26 feet, Secchi Disk = 13 feet

A very soft water seepage lake having slightly acid, light brown water of high transparency. The shoreline is 75 percent upland, consisting of mixed hardwoods and conifers, and 25 percent wetland of open bog. Littoral materials consist of muck (60 percent) and sand (40 percent). Waterfowl make limited use of this lake. Largemouth bass, bluegill and perch are present. There is no public access. Two dwellings are located on the shoreline.

Halfmoon Lake, T31N, R18E, Section 1

Surface Acres = 27.6, Maximum Depth = 35 feet, Secchi Disk = 11 feet

A very soft water seepage lake having slightly acid, clear water of moderate transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. The littoral zone is 70 percent muck and 30 percent sand. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, bluegill, black crappie, pumpkinseed and perch. The Town of Brazeau provides public access without parking. Thirty-nine dwellings are located on the shoreline.

Hells Acre Springs, T32N, R15E, Section 28

Surface Acres = 3.4, Maximum Depth = 16 feet, Secchi Disk = greater than 16 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The outlet, Hills Pond Creek, flows to the South Branch of the Oconto River. The shoreline is 60 percent wetland, of shrub meadow, and 40 percent upland, consisting of hardwoods. The littoral zone is 90 percent silt and 10 percent rubble. Waterfowl make limited use of this pond. Floating and submergent aquatic vegetation are dense over about 40 percent of the lake basin. Approximately 80 percent of the pond area is less than 3 feet deep. No information is available on the fish population, however, trout are probably present. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Hidden Lake, T33N, R16E, Section 8

Surface Acres = 36.0, Maximum Depth = 45 feet, Secchi Disk = 8 feet

A medium hard water drainage lake having slightly alkaline, light brown water of moderate transparency. The outlet flows to the North Branch of the Oconto River. The shoreline is 60 percent wetland, of hardwood swamp, and 40 percent upland, consisting primarily of hardwoods. Littoral materials consist of sand (50 percent), muck (45 percent) and gravel (5 percent). Waterfowl make limited use of this lake. Submergent and floating vegetation are moderate in density in most of the littoral zone. The known fish population consists of largemouth bass, perch, bluegill and bullhead. There is no public access. One dwelling is located on the shoreline.

Hills Pond, T31N, R15E, Section 4

Surface Acres = 9.7, Maximum Depth = 6 feet, Secchi Disk = greater than 6 feet

A hard water drainage lake (impoundment) having slightly alkaline, clear water of moderate transparency. The shoreline is 80 percent upland, consisting of hardwoods, and 20 percent wetland of shrub meadow. The littoral zone is 85 percent muck, 10 percent gravel and 5 percent rubble. Waterfowl make limited use of this lake. Submergent aquatic vegetation is moderate in density over 40 percent of the lake basin. About 60 percent of the lake basin is less than 3 feet deep. Fish species inhabiting this lake include largemouth bass, northern pike, bluegill, pumpkinseed, black crappie, and perch. The Town of Doty provides public access with parking. No dwellings are located on the shoreline.

Hoerth Lake, T30N, R18E, Section 33

Surface Acres = 6.0, Maximum Depth = 23 feet, Secchi Disk = 6 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 60 percent wetland and 40 percent upland. The entire littoral zone consists of muck. Waterfowl make limited use of this lake. The fish population consists of northern pike, largemouth bass, bluegill and perch. Buffalo or carp are also thought to be present. There is no public access. No dwellings are located on the shoreline.

Holt Lake, T31N, R18E, Section 13

Surface Acres = 6.0, Maximum Depth = 23 feet, Secchi Disk = 11 feet

A soft water seepage lake having slightly acid, light brown water of moderate transparency. The entire shoreline is wetland of coniferous bog. The littoral material is all muck. Waterfowl make limited use of this lake. Largemouth bass and panfish are known to inhabit this lake. The unimproved or difficult type public access is available from county land. No dwellings are located on the shoreline.

Horn Lake, T33N, R15E, Section 21

Surface Acres = 132.0, Maximum Depth = 13 feet, Secchi Disk = 8 feet

A medium hard water spring lake having slightly alkaline, clear water of moderate transparency. A short outlet flows to Reservoir Pond. The shoreline is 80 percent upland, composed of hardwoods, and 20 percent wetland of open bog. Littoral materials are 60 percent muck, 30 percent sand and 10 percent gravel. Waterfowl make limited use of this lake on their spring and fall migrations. Floating and submergent aquatic vegetation are common in the littoral zone. Fish species inhabiting this lake include muskellunge, northern pike, largemouth bass, bluegill and perch. The Town of Townsend provides public access without parking. The navigable water type public access is also available from Reservoir Pond. Thirty-eight dwellings and two resorts are located on the shoreline.

Horn Shaped Lake, T33N, R15E, Section 28

Surface Acres = 6.0, Maximum Depth = 15 feet, Secchi Disk = 6 feet

A very soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 60 percent wetland, of coniferous bog, and 40 percent upland, consisting of hardwoods. Littoral materials consist of muck (90 percent) and detritus (10 percent). Waterfowl make limited use of this lake. Bullheads are the only fish known to be present. There is no public access. One dwelling is located on the shoreline.

Impassable Lake, T30N, R18E, Section 23

Surface Acres = 83.7, Maximum Depth = 5 feet, Secchi Disk = greater than 5 feet

A hard water drainage lake having slightly alkaline, light brown water of moderate transparency. The outlet is tributary to Peshtigo Brook. The shoreline is 90 percent wetland of coniferous bog, and 10 percent upland, consisting of mixed hardwoods and conifers. The entire littoral zone is muck. Waterfowl make moderate to heavy use of this lake on their spring and fall migrations and some puddle ducks nest here. Submergent aquatic vegetation is dense over 90 percent of the lake basin and floating and emergent types are moderate in density. The fish population consists of northern pike, largemouth bass, bluegill and perch. Due to the shallow nature of this lake, it frequently winterkills. There is no public access. Two dwellings are located on the shoreline.

Jocko Lake, T30N, R19E, Section 29

Surface Acres = 16.9, Maximum Depth = 31 feet, Secchi Disk = 10 feet

A hard water drainage lake having alkaline, light brown water of moderate transparency. The shoreline is 80 percent upland, consisting of hardwoods, and 20 percent wetland of coniferous swamp. The outlet flows to Montana Lake in Marinette County. Muck comprises the entire littoral zone. Waterfowl make limited use of this lake. The fish population includes northern pike, bluegill and perch. Navigable water type public access is available via the outlet. Four dwellings are located on the shoreline.

Johnson Lake, T29N, R19E, Section 17

Surface Acres = 6.3, Maximum Depth = 6 feet, Secchi Disk = greater than 6 feet

A medium hard water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 60 percent upland and 40 percent wetland. The littoral zone is 50 percent marl, 40 percent muck, 5 percent sand and 5 percent detritus. Waterfowl make limited use of this lake. Moderate to dense stands of submergent and floating vegetation are present. No information is available on the fish population. The lake probably winterkills due to its shallow depth. There is no public access. No dwellings are located on the shoreline.

Kathleen Lake, T32N, R15E, Section 21

Surface Acres = 22.9, Maximum Depth = 33 feet, Secchi Disk = 16 feet

A very soft water seepage lake having slightly acid, clear water of high transparency. The shoreline is primarily upland, consisting of hardwoods and a few conifers, with limited areas of coniferous bog wetland. The littoral zone is 70 percent muck, 15 percent sand, 10 percent gravel and 5 percent rubble. Waterfowl make limited use of this lake. The lake has an excellent population of largemouth bass, and panfish are also likely to be present. There is no public access. No dwellings are located on the shoreline.

Kelly Lake, T29N, R19E, Section 6

Surface Acres = 361.3, Maximum Depth = 41 feet, Secchi Disk = not determined

A hard water drainage lake having slightly alkaline, clear water. The shoreline is primarily upland with only limited areas of wetland fringe. The littoral zone is composed of 65 percent sand, 25 percent muck and 10 percent gravel. Waterfowl make limited use of this lake. The fish population consists of northern pike, walleye, largemouth bass, bluegill, pumpkinseed, rock bass, black crappie, perch and bullhead. The Town of Maple Valley provides public access with parking. Two hundred dwellings, one resort and a park area are located on the shoreline. A dam on the outlet maintains a head of 2 feet and is controlled by Oconto County.

Klaus Lake, T28N, R18E, Section 4

Surface Acres 22.4, Maximum Depth = 50 feet, Secchi Disk = 6 feet

A hard water seepage lake having slightly alkaline, medium brown water of moderate transparency. The shoreline is 85 percent wetland, of coniferous swamp, and 15 percent upland, consisting of cleared land and mixed hardwoods and conifers. The littoral zone is 80 percent muck, 15 percent sand and 5 percent marl. Waterfowl make limited use of this lake. Information is lacking on the fish population, however, largemouth bass and panfish are probably present. There is no public access. Two dwellings are located on the shoreline.

Kobus Lake, T31N, R18E, Section 9

Surface Acres = 3.7, Maximum Depth = 5 feet, Secchi Disk = greater than 5 feet

A hard water seepage lake having neutral, light brown water of moderate transparency. The entire shoreline is wetland of coniferous swamp. The entire littoral zone is muck. Waterfowl make limited use of this lake on their spring and fall migrations. The only fish species noted were very small pumpkinseeds. Winterkill is probably a limiting factor in the establishment of a game fish population. Wilderness type public access is available by crossing county land. No dwellings are located on the shoreline.

Krake Lake, T32N, R15E, Section 15

Surface Acres = 2.6, Maximum Depth = 4 feet, Secchi Disk = greater than 4 feet

A medium hard water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 85 percent upland, consisting of mixed hardwoods and conifers, and 15 percent wetland of open bog. The entire littoral zone is muck. The lake is not known to have a game and/or panfish population. Winterkill is highly probable. Waterfowl make limited use of this lake. Floating and submergent vegetation are moderate in density over most of the lake basin. Public access of the wilderness type is available from U.S. Forest Service land. No dwellings are located on the shoreline.

Kuplie Lake, T28N, R19E, Section 3

Surface Acres = 15.2, Maximum Depth = 22 feet, Secchi Disk = 10 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 60 percent wetland, of shrub bog, and 40 percent upland, consisting of mixed hardwoods and conifers. The littoral zone is 99 percent muck and 1 percent sand. Waterfowl make limited use of this lake. Fish species inhabiting this lake include northern pike, largemouth bass, bluegill and perch. There is no public access. No dwellings are located on the shoreline.

Lackawanna Lake, T33N, R17E, Section 1

Surface Acres = 8.8, Maximum Depth = 3 feet, Secchi Disk = greater than 3 feet

A hard water drainage lake having slightly alkaline, light brown water of moderate transparency. The entire shoreline is wetland of shrub bog. Littoral materials consist of muck (95 percent) and sand (5 percent). The outlet flows to Caldron Falls Flowage in Marinette County. Waterfowl make limited use of this lake on their spring and fall migrations. The fish population includes northern pike, largemouth bass, bluegill and perch. Floating and submergent vegetation are moderate in density over much of the lake basin. There is no public access. No dwellings are located on the shoreline.

Lake John, T33N, R16E, Section 16

Surface Acres = 102.7, Maximum Depth = 26 feet, Secchi Disk = 10 feet

A medium hard water drainage lake having slightly alkaline, light brown water of moderate transparency. The outlet flows to the North Branch of the Oconto River. The shoreline is 75 percent upland and 25 percent wetland. Littoral materials consist of 85 percent muck, 10 percent sand, 3 percent gravel and 2 percent rubble. Waterfowl use this lake on their spring and fall migrations. Submergent and floating aquatic vegetation are of moderate density in most of the littoral zone. The fish population includes northern pike, largemouth bass and panfish. The State of Wisconsin provides public access with parking. Twenty-three dwellings are located on the shoreline.

Lauder Lake, T33N, R15E, Section 29

Surface Acres = 8.7, Maximum Depth = 9 feet, Secchi Disk = greater than 9 feet

A medium hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 60 percent wetland, of open bog, and 40 percent upland, consisting of hardwoods and a few conifers. Littoral materials are primarily muck, with limited areas of sand and gravel. The only fish present are forage species. Winterkill is probable. Wilderness type public access is available from U. S. Forest Service land. One resort is located on the shoreline.

Ledge Lake, T32N, R17E, Section 1

Surface Acres = 33.5, Maximum Depth = 19 feet, Secchi Disk = 8 feet

A soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 55 percent wetland of coniferous swamp, and 45 percent upland, consisting of mixed hardwoods and conifers. Littoral materials consist of sand (55 percent), muck (40 percent) and gravel (5 percent). Waterfowl make limited use of this lake. The fish population consists of bluegill, pumpkinseeds, perch and bullhead. Submergent and floating vegetation occupy most of the littoral zone. There is no public access. One development is located on the shoreline.

Leigh Flowage (Lee Lake, Marl Lake, Rice Lake), T30N R19E, Section 30

Surface Acres = 231.4, Maximum Depth = 52, Secchi Disk = 18 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet flows to Jocka Lake. A dam at the outlet holds about 8 head feet of water. Littoral materials consist of sand (45 percent), muck (45 percent), and gravel (10 percent). The fish population consists of northern pike, walleye, largemouth bass, bluegill, pumpkinseed, black crappie, rock bass, and yellow perch. Public access with parking is provided by the Town of Brazeau. Seventy-five dwellings are located on the shoreline. Two large bays formerly known as Marl Lake and Rice Lake are part of the flowage.

Lily Lake, T28N, R19E, Section 8

Surface Acres = 5.3, Maximum Depth = 49 feet, Secchi Disk = 10 feet

A soft water seepage lake having neutral, light brown water of moderate transparency. The shoreline is 60 percent wetland of coniferous bog, and 40 percent upland, composed of hardwoods. Muck comprises the entire littoral zone. Waterfowl make limited use of this lake. The known fish population consists of panfish. There is no public access. No dwellings are located on the shoreline.

Lincoln Lake, T33N, R16E, Section 7

Surface Acres = 12.6, Maximum Depth = 16 feet, Secchi Disk = 6 feet

A soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 85 percent wetland, of open meadow, and 15 percent upland, consisting of hardwoods. Littoral materials consist of sand (55 percent) and muck (45 percent). Waterfowl make limited use of this lake. Floating and submergent aquatic vegetation are moderate in density over most of the littoral zone. Information is lacking regarding the fish population, however, largemouth bass and panfish may be present. Unimproved or difficult type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Line Lake, T32N, R15E, Section 10

Surface Acres = 2.3, Maximum depth = 15 feet, Secchi Disk = 9 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The entire shoreline is upland, consisting of hardwoods. The littoral zone is 85 percent muck, 10 percent rubble and 5 percent sand. Waterfowl make limited use of this lake. Forage fish are abundant. Unimproved or difficult public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Little Archibald Lake, T33N, R15E, Section 36

Surface Acres = 55.8, Maximum Depth = 65 feet, Secchi Disk = 15 feet

A medium, hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is primarily upland, consisting of hardwoods and conifers, with limited areas of shrub bog wetland. The littoral zone is 75 percent muck, 12 percent sand, 7 percent gravel, 5 percent rubble and 1 percent boulders. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, bluegill and perch. There is no public access. A Boy Scout Camp is the only development on the lake.

Little Bass Lake, T31N, R18E, Section 14

Surface Acres = 3.0, Maximum Depth = 25 feet, Secchi Disk = 4 feet

A medium hard water seepage lake having slightly acid, medium brown water of low transparency. The entire shoreline is wetland of coniferous bog. Littoral materials consist of muck (90 percent), and detritus (10 percent). Waterfowl make limited use of this lake. Fish population data is lacking, but conditions suggest that the lake may support largemouth bass and/or panfish. There is no public access. No developments are located on the shoreline.

Little Bear Lake, T33N, R16E, Section 20

Surface Acres = 12.0, Maximum Depth = 14 feet, Secchi Disk = 9 feet

A hard water seepage lake having slightly acid, clear water of moderate transparency. The shoreline is 55 percent wetland of shrub bog and 45 percent upland, consisting of hardwoods and a few conifers. Littoral materials are 95 percent muck and 5 percent sand. Waterfowl make little use of this lake. No information on the fish population is available, however, largemouth bass and/or panfish may be present. Wilderness type public access is possible by crossing U. S. Forest Service land. No dwellings are located on the shoreline.

Little Gillett Lake, T32N, R16E, Section 18

Surface Acres = 16.0, Maximum Depth = 25 feet, Secchi Disk = 12 feet

A hardwater drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 70 percent upland, consisting of hardwoods, and 30 percent wetland of coniferous bog. The littoral zone is 70 percent muck and 30 percent sand. Waterfowl make limited use of this lake. Fish species inhabiting this lake include northern pike, largemouth bass, walleye, bluegill, pumpkinseed, black crappie, perch and white sucker. The Town of Riverview provides public access with parking. Two dwellings are located on the shoreline.

Little Horn Lake, T33N, R15E, Section 28

Surface Acres = 24.0, Maximum Depth = 22 feet, Secchi Disk = 16 feet

A medium hard water spring lake having slightly alkaline, clear water of high transparency. The entire shoreline is upland, consisting of hardwoods and cleared land. Littoral materials consist of muck (85 percent), sand (10 percent) and gravel (5 percent). Waterfowl make limited use of this lake. The fish population consists of muskellunge, walleye, northern pike, largemouth bass, bluegill and perch. Navigable water type public access is available via the outlet from Reservoir Pond. Twenty-five dwellings are located on the shoreline.

Little Maiden Lake, T32N, R16E, Section 7

Surface Acres = 39.1, Maximum Depth = 17 feet, Secchi Disk = greater than 17 feet

A hard water drainage lake having alkaline, clear water of high transparency. The shoreline is 85 percent upland, consisting of hardwoods, and 15 percent wetland of coniferous bog. Littoral materials are composed of marl (44 percent), muck (20 percent), gravel (15 percent), sand (10 percent), rubble (10 percent) and boulders (1 percent). Waterfowl make limited use of this lake. The known fish population includes northern pike, largemouth bass, bluegill, green sunfish and perch. Navigable water type public access is available from a town road which crosses the outlet. Eight dwellings are located on the shoreline.

Little Pickerel Lake, T31N, R18E, Section 1

Surface Acres = 5.3, Maximum Depth = 17 feet, Secchi Disk = 4 feet

A medium hard water drainage lake having neutral, medium brown water of low transparency. The North Branch of Peshtigo Brook flows through this lake. Shrub meadow wetlands surround this lake. The entire littoral zone is composed of muck. Waterfowl make limited use of this lake. The known fish population consists of northern pike, largemouth bass and black crappie. Navigable water type public access is available via the inlet from Pickerel Lake. Wilderness type public access is also available from county land. No developments are located on the shoreline.

Little Pickerel Lake, T33N, R15E, Section 11

Surface Acres = 23.7, Maximum Depth = 23 feet, Secchi Disk = 11 feet

A hard water spring lake having slightly alkaline, clear water of moderate transparency. The shoreline is 50 percent upland, consisting of hardwoods, and 50 percent wetland of coniferous bog. Littoral materials are muck (90 percent), sand (5 percent), gravel (3 percent) and rubble (2 percent). Waterfowl make little use of this lake. Floating and submergent aquatic vegetation are moderate in density over most of the littoral zone. The known fish population includes northern pike, largemouth bass, black crappie, pumpkinseed and white sucker. Navigable water type public access is available via the outlet. One dwelling is located on the shoreline.

Little Squaw Lake, T30N, R18E, Section 24

Surface Acres = 14.7, Maximum Depth = 11 feet, Secchi Disk = greater than 11 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 60 percent upland, consisting of hardwoods and cleared land, and 40 percent wetland of open bog. Littoral materials consist of muck (95 percent) and sand (5 percent). Waterfowl make limited use of this lake. The known fish population includes northern pike, largemouth bass, bluegill, perch, bullhead and forage species. About 40 percent of the lake basin is occupied by moderate growths of floating and submergent aquatic vegetation. There is no public access. No dwellings are located on the shoreline.

Long Lake, T30N, R19E, Section 31

Surface Acres = 37.9, Maximum Depth = 22 feet, Secchi Disk = 9 feet

A medium hard water seepage lake having slightly alkaline, clear water of moderate transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. Littoral materials consist of muck (85 percent) and sand (15 percent). Waterfowl make limited use of this lake. Fish species known to inhabit this lake are largemouth bass, bluegill and pumpkinseed. There is no public access. One dwelling is located on the shoreline.

Long Lake, T32N, R15E, Section 9

Surface Acres = 9.4, Maximum Depth = 6 feet, Secchi Disk = greater than 6 feet

A medium hard water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 80 percent upland, consisting primarily of hardwoods, and 20 percent wetland of open bog. Waterfowl make limited use of this lake on their spring and fall migrations. Floating and submergent vegetation are found in most of the lake basin. The absence of a game and/or panfish population indicates winterkill. There is no public access. No dwellings are located on the shoreline.

Lost Lake, T31N, R18E, Section 9

Surface Acres = 5.7, Maximum Depth = 27 feet, Secchi Disk = 5 feet

A hard water drained lake having slightly alkaline, light brown water of low transparency. The entire shoreline is wetland of swamp conifer. The entire littoral area is composed of muck. Waterfowl make limited use of this lake. The only fish known to inhabit this lake are perch. This lake is located in the Brazeau Swamp and can not be reached by road which makes for a unique wilderness situation. Public access is of the wilderness type. The entire shoreline is owned by Oconto County. No dwellings are located on the shoreline.

Lost Lake, T32N, R15E, Section 24

Surface Acres = 2.6, Maximum Depth = 2 feet, Secchi Disk = greater than 2 feet

A hard water drainage lake having slightly alkaline, clear water of moderate transparency. The inlet and outlet are the Second South Branch of the Oconto River. The entire shoreline is wetland of coniferous bog. The entire littoral zone is muck. Waterfowl make limited use of this lake. Submergent and floating aquatic vegetation are common throughout most of the lake basin. No fish were observed at the time of field investigation although forage species are probably present. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Lower Island Lake, T32N, R15E, Section 24

Surface Acres = 11.9, Maximum Depth = 26 feet, Secchi Disk = 14 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 50 percent upland, consisting of hardwoods and 50 percent wetland of open bog. Waterfowl make little use of this lake. The outlet flows to the Second South Branch of the Oconto River. Littoral materials are comprised of muck (95 percent), sand (3 percent) and gravel (2 percent). Fish species inhabiting this lake include northern pike, largemouth bass, bluegill and rock bass. Navigable water type public access is available via the inlet. Eight dwellings are located on the shoreline.

Lower Jones Springs, T32N, R15E, Section 7

Surface Acres = 2.8, Maximum Depth = 7 feet, Secchi Disk = greater than 7 feet

A hard water drainage lake and part of a spring pond complex having alkaline, clear water of high transparency. The shoreline is 70 percent upland, consisting of hardwoods, and 30 percent wetland of shrub meadow. Littoral materials are silt (80 percent), sand (10 percent), gravel (5 percent) and rubble (5 percent). Waterfowl make limited use of this lake. This lake is managed for trout and contains brook trout. A small portion of the southwest part of this lake has been dredged to improve trout habitat. About 80 percent of the pond basin is less than 3 feet deep. Unimproved or difficult type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Lower Range Lake, T32N, R15E, Section 13

Surface Acres = 5.2, Maximum Depth = 22 feet, Secchi Disk = 15 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 60 percent wetland, of shrub meadow, and 40 percent upland consisting of hardwoods. The littoral zone is composed of muck. Waterfowl make limited use of this lake. Fish species known to inhabit this lake are largemouth bass and bluegill. Unimproved or difficult type public access is available from a town road. No dwellings are located on the shoreline.

Lower Wapato Lake, T33N, R15E, Section 32

Surface Acres = 38.3, Maximum Depth = 10 feet, Secchi Disk = 5 feet

A medium hard water drainage lake having slightly alkaline, light brown water of low transparency. The shoreline is 70 percent upland, consisting of hardwoods, and 30 percent wetland of bog and marsh. Littoral materials consist of muck (93 percent), sand (5 percent), and gravel (2 percent). Waterfowl make limited use of this lake. Fish species which inhabit this lake include northern pike, bluegill, pumpkinseed and bullhead. Navigable water type public access is available via the inlet. Wilderness type public access is also available by crossing U. S. Forest Service land. Six dwellings are located on the shoreline.

Lower Wheeler Pond, T33N, R15E, Section 22

Surface Acres = 303.0, Maximum Depth = 27 feet, Secchi Disk = 9 feet

A medium hard water drainage lake (impoundment) on McCaslin Brook having slightly acid, light brown water of moderate transparency. The entire shoreline is upland, consisting of hardwoods. The littoral zone is composed of muck (68 percent), sand (25 percent), gravel (5 percent) and rubble (2 percent). Waterfowl make moderate use of this flowage on their spring and fall migrations. Submergent aquatic vegetation is moderate in density in about half of the lake basin. The fish population consists of northern pike, largemouth bass, bluegill, pumpkinseed, black crappie and perch. Navigable water type public access is available from Upper Wheeler Flowage. One hundred twenty-nine dwellings and four resorts are located on the shoreline.

Machickanee Flowage, T28N, R20E, Section 34

Surface Acres = 434.9, Maximum Depth = 23 feet, Secchi Disk = 3 feet

A hard water drainage lake (impoundment) on the Oconto River, having slightly alkaline, medium brown water of low transparency. The shoreline is primarily upland, consisting of mixed hardwoods and conifers, with limited areas of shrub meadow wetland. Littoral materials are 80 percent sand and 20 percent muck. Waterfowl make limited use of this flowage. Carp are the only fish known to be present. This flowage receives industrial effluent which is primarily responsible for the poor water quality that limits the fishery, causes occasional fish kills, and produces a bad odor. Navigable water type public access is available via the inlet. Unimproved or difficult public access is also available from a town road. Forty-seven dwellings are located on the shoreline. The dam maintains a head of 19 feet and is owned by the Oconto Electric Cooperative.

MacHolm Lake, T30N, R18E, Section 34

Surface Acres = 12.9, Maximum Depth = 52 feet, Secchi Disk = 5 feet

A hard water seepage lake having alkaline, medium brown water of low transparency. The shoreline is 50 percent upland, consisting of hardwoods, and 40 percent wetland of shrub meadow. The littoral zone is composed of muck. Waterfowl make limited use of this lake. Fish species reported to inhabit this lake include northern pike, largemouth bass and bluegill. Wilderness type public access is available by crossing county land. One dwelling is located on the shoreline.

Maiden Lake, T32N, R16E, Section 7

Surface Acres = 290.0, Maximum Depth = 60 feet, Secchi Disk = 26 feet

A hard water drainage lake having slightly alkaline, clear water of very high transparency. The shoreline is primarily upland, consisting of mixed hardwoods and conifers, with small areas of swamp conifer wetland. The littoral zone is composed of gravel (30 percent), sand (20 percent), rubble (20 percent), marl (15 percent), muck (10 percent), and boulders (5 percent). Waterfowl make limited use of this lake on their spring and fall migrations. The fish population consists of walleye, largemouth bass, smallmouth bass, bluegill, pumpkinseed, green sunfish, perch and white sucker. The Town of Riverview provides public access without parking. One hundred eleven dwellings and two resorts are located on the shoreline.

Marsh Lake, T31N, R18E, Section 14

Surface Acres = 2.8, Maximum Depth = 17 feet, Secchi Disk = 3 feet

A soft water seepage lake having slightly acid, dark brown water of low transparency. The entire shoreline is wetland of open bog. The entire littoral zone is composed of muck. Waterfowl make limited use of this lake. No information is available on the fish population although panfish may be present. Wilderness type public access is available from county land. No dwellings are located on the shoreline.

McComb Lake, T31N, R16E, Section 28.

Surface Acres = 19.8, Maximum Depth = 34 feet, Secchi Disk = 6 feet

A very soft water seepage lake having acid, light brown water of moderate transparency. The shoreline is 55 percent wetland and 45 percent upland. The littoral zone is 50 percent muck, 20 percent sand, 15 percent gravel, 10 percent rubble and 5 percent boulders. Waterfowl make limited use of this lake. Floating aquatic vegetation is found in most of the littoral zone. Fish species inhabiting this lake include largemouth bass, bluegill, pumpkinseeds and perch. The Town of Armstrong provides public access with parking. Ten dwellings are located on the shoreline.

Midget Lake, T31N, R16E, Section 24

Surface Acres = 7.0, Maximum Depth = 20 feet, Secchi Disk = 8 feet

A medium hard water seepage lake having slightly alkaline, clear water of moderate transparency. The entire shoreline is upland, consisting of hardwoods and some pasture land. The littoral zone is composed of sand (65 percent), muck (30 percent), and gravel (5 percent). Waterfowl make limited use of this lake. The fish population consists of pumpkinseed, perch, bullhead and golden shiners. There is no public access. One dwelling is located on the shoreline.

Miller Lake, T32N, R15E, Section 21

Surface Acres = 15.5, Maximum Depth = 20 feet, Secchi Disk = 11 feet

A very soft water seepage lake having acid, clear water of moderate transparency. The shoreline is 90 percent upland, consisting of hardwoods, and 10 percent wetland of coniferous bog. The littoral zone is 70 percent muck, 15 percent sand, 10 percent gravel and 5 percent rubble. Waterfowl make limited use of this lake. Fish species known to inhabit this lake are largemouth bass and panfish. There is no public access. No dwellings are located on the shoreline.

Moody Lake, T30N, R17E, Section 3

Surface Acres = 17.7, Maximum Depth = 9 feet, Secchi Disk = greater than 9 feet

A very soft water seepage lake having acid, light brown water of moderate transparency. The shoreline is 40 percent wetland and 60 percent upland. Littoral materials consist of muck (70 percent) and sand (30 percent). Waterfowl make limited use of this lake. Floating and submergent aquatic vegetation are moderate in density in some parts of the lake basin. Information on the fish population is lacking although panfish and minnows may be present. The lake is reported to winterkill occasionally. There is no public access. Ten dwellings are located on the shoreline.

Mosquito Lake, T33N, R15E, Section 4

Surface Acres = 6.1, Maximum Depth = 20 feet, Secchi Disk = 4 feet

A medium hard water drainage lake having slightly alkaline, light brown water of low transparency. The shoreline is primarily wetland of shrub bog, with limited areas of upland hardwood present. The littoral zone is composed of muck (90 percent), sand (5 percent) and clay (5 percent). Northern pike are reported to be present. The outlet flows to Upper Wheeler Flowage. There is navigable water type public access via the outlet. No dwellings are located on the shoreline. Floating and submergent aquatic vegetation are moderate in density in most of the littoral zone.

Mud Lake, T32N, R15E, Section 24

Surface Acres = 3.8, Maximum Depth = 7 feet, Secchi Disk = greater than 7 feet

A very soft water seepage lake having acid, light brown water of moderate transparency. The entire shoreline is wetland of coniferous swamp. The entire littoral zone is composed of muck. Waterfowl make limited use of this lake. Winterkill may occur and limit the fishery to forage species. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Munger Lake, T33N, R16E, Section 21

Surface Acres = 97.2, Maximum Depth = 21 feet, Secchi Disk = 16 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 80 percent upland, consisting of mixed hardwoods and conifers, and 20 percent wetland of shrub bog. The littoral zone is 88 percent muck, 10 percent sand and 2 percent boulders. Waterfowl make limited use of this lake. The fish population consists of northern pike, muskellunge, largemouth bass and panfish. The Town of Lakewood provides public access without parking. Fifty-one dwellings are located on the shoreline. A dam at the outlet maintains a head of 4 feet.

Nelligan Lake, T32N, R17E, Section 27

Surface Acres = 50.4, Maximum Depth = 26 feet, Secchi Disk = 19 feet

A very soft water seepage lake having acid, clear water of high transparency. The shoreline is 60 percent upland and 40 percent wetland. Littoral materials consist of sand (81 percent), muck (10 percent), gravel (5 percent), rubble (3 percent), and boulders (1 percent). Waterfowl make limited use of this lake. The lake is known to contain largemouth bass and probably panfish as well. The Town of Riverview provides public access with parking. Four dwellings are located on the shoreline. Submergent aquatic vegetation is moderate in density in about half of the lake basin.

Newton Lake, T28N, R18E, Section 23

Surface Acres = 19.2, Maximum Depth = 33 feet, Secchi Disk = 14 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 70 percent upland, primarily of hardwoods and a limited area of pasture, and 30 percent wetland of coniferous swamp. Littoral materials consist of marl (50 percent), muck (45 percent), and sand (5 percent). Waterfowl make limited use of this lake. Fish species inhabiting this lake are northern pike, largemouth bass, bluegill and black crappie. The outlet flows to Christie Brook. There is no public access. No dwellings are located on the shoreline.

North Mountain, T31N, R15E, Section 1

Surface Acres = 9.7, Maximum Depth = 3 feet, Secchi Disk = greater than 3 feet

A medium hard water spring lake having slightly alkaline, clear water. The outlet flows to South Mountain Lake. The shoreline is 70 percent wetland of coniferous bog, and 30 percent upland, consisting of mixed hardwoods and conifers. Silt occupies the entire littoral area. Waterfowl make limited use of this lake. The fish population consists of minnows. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Oconto Falls Pond, T28N, R19E, Section 26

Surface Acres = 167.0, Maximum Depth = 28 feet, Secchi Disk = 4 feet

A hard water drainage lake (impoundment) on the Oconto River having slightly alkaline, light brown water of low transparency. The entire shoreline is upland, consisting primarily of mixed hardwoods and conifers, with a limited area of cleared land. Littoral materials are sand (60 percent), muck (35 percent), and gravel (5 percent). Waterfowl make some use of this flowage on their spring and fall migrations. Fish species inhabiting this flowage include walleye, northern pike, largemouth bass, smallmouth bass, bluegill, pumpkinseed, rock bass, black crappie, perch and carp. Public access with parking is provided by the Town of Oconto Falls, and public access without parking is provided by the City of Oconto Falls. Thirty-seven dwellings are located on the shoreline. The dam has a head of 28 feet and is maintained by the Wisconsin-Michigan Power Company.

Papoose Lake, T30N, R18E, Section 24

Surface Acres = 1.5, Maximum Depth = 5 feet, Secchi Disk = greater than 5 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 90 percent wetland, of coniferous bog, and 10 percent upland, consisting of hardwoods. Waterfowl make limited use of this lake. Muck occupies the entire littoral zone. The only fish present are forage species. Winterkill is likely. There is no public access. No dwellings are located on the shoreline. Floating and submergent aquatic vegetation are moderate in density throughout the lake basin.

Pat Lake, T31N, R16E, Section 7

Surface Acres = 9.6, Maximum Depth = 13 feet, Secchi Disk = 7 feet

A medium hard water spring lake having slightly acid, light brown water of moderate transparency. The outlet flows to the First South Branch of the Oconto River. The shoreline consists of upland (70 percent) and wetland (30 percent). Littoral materials are primarily muck, with limited areas of sand, gravel and rubble. Waterfowl make limited use of this lake. The known fish population consists of panfish and forage fish, and a few trout may be present. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Paya Lake, T32N, R16E, Section 10

Surface Acres = 121.4, Maximum Depth = 40 feet, Secchi Disk = 16 feet

A medium hard water seepage lake having alkaline, clear water of high transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. Littoral materials are sand (40 percent), gravel (40 percent), rubble (10 percent), muck (10 percent). Waterfowl make limited use of this lake. Fish species inhabiting this lake include northern pike, largemouth bass, smallmouth bass, bluegill, pumpkinseed and perch. The Town of Riverview provides public access with parking. Thirty-nine dwellings are located on the shoreline.

Pecor Lake, T30N, R18E, Section 36

Surface Acres = 18.8, Maximum Depth = 23 feet, Secchi Disk = 13 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet flows to White Lake. The shoreline is 50 percent upland and 50 percent wetland. Littoral materials consist of sand (50 percent), muck (25 percent), and marl (25 percent). Waterfowl make limited use of this lake. Northern pike, largemouth bass and panfish comprise the fish population. The Town of Bagley provides public access without parking. Six dwellings, one resort and a boat rental are located on the shoreline.

Perch Lake, T31N, R18E, Section 13

Surface Acres = 7.9, Maximum Depth = 24 feet, Secchi Disk = 14 feet

A hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is 60 percent upland, consisting of hardwoods, and 40 percent wetland, of coniferous and hardwood swamp. The littoral zone is 90 percent marl and 10 percent detritus. Waterfowl make limited use of this lake. Information is lacking on the fish population, but conditions suggest that the lake will support a largemouth bass and panfish population. The Town of Brazeau provides public access without parking. No dwellings are located on the shoreline.

Perch Lake, T32N, R15E, Section 29

Surface Acres = 13.0, Maximum Depth = 10 feet, Secchi Disk = 8 feet

A hard water drained lake having alkaline, clear water of moderate transparency. The outlet flows to the South Branch of the Oconto River. Upland shoreline is dominant on this lake, with limited areas of coniferous swamp wetland. Littoral materials consist of muck (60 percent), sand (20 percent), gravel (10 percent), and rubble (10 percent). Waterfowl make limited use of this lake. Forage fish are known to inhabit this lake. Unimproved or difficult type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Pete Lake, T29N, R19E, Section 18

Surface Acres = 3.9, Maximum Depth = 21 feet, Secchi Disk = 3 feet

A very soft water seepage lake having acid, medium brown water of low transparency. The entire shoreline is wetland of coniferous bog. Muck occupies the entire littoral zone. Waterfowl make limited use of this lake. Northern pike, bluegill and perch are reported to be present. There is no public access. No dwellings are located on the shoreline.

Peterson Lake, T30N, R18E, Section 33

Surface Acres = 7.8, Maximum Depth = 56 feet, Secchi Disk = 5 feet

A hard water seepage lake having neutral, dark brown water of low transparency. The shoreline is 80 percent upland, consisting of hardwoods and cleared land, and 20 percent wetland, composed primarily of shrub bog. The entire littoral zone is muck. Waterfowl make limited use of this lake. Bluegill are known to inhabit this lake. There is no public access. No dwellings are located on the shoreline.

Pickerel Lake, T31N, R18E, Section 1

Surface Acres = 31.7, Maximum Depth = 18 feet, Secchi Disk = 5 feet

A medium hard water drained lake, having slightly alkaline, medium brown water of low transparency. The shoreline is 90 percent wetland of shrub meadow and 10 percent upland, of mixed hardwoods and conifers. Littoral materials consist of 30 percent sand, 30 percent muck, 30 percent marl, and 10 percent detritus. Waterfowl make limited use of this lake. Northern pike, largemouth bass and black crappie are known to inhabit this lake. The Town of Brazeau provides public access without parking. Nine dwellings are located on the shoreline.

Pickerel Lake, T33N, R15E, Section 11

Surface Acres = 126.5, Maximum Depth = 15 feet, Secchi Disk = 13 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 80 percent upland, consisting primarily of hardwoods, and 20 percent wetland of coniferous bog. Littoral materials consist of muck (55 percent) sand (30 percent), gravel (10 percent), and rubble (5 percent). Waterfowl make some use of this lake on their spring and fall migrations. The fish population includes northern pike, largemouth bass, pumpkinseed, black crappie and white sucker. The Town of Townsend provides public access with parking. Twenty-six dwellings and a picnic site are located on the shoreline.

Pine Lake, T32N, R15E, Section 12

Surface Acres = 4.5, Maximum Depth = 15 feet, Secchi Disk = 9 feet

A very soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 95 percent upland, consisting of hardwoods, and 5 percent wetland of shrub bog. The littoral materials are primarily muck, with a very limited area of rubble. Bluegill are known to inhabit this lake. Waterfowl make limited use of this lake. Unimproved or difficult public access is available from a town road. One dwelling is located on the shoreline.

Pine Ridge Lake, T33N, R16E, Section 23

Surface Acres = 46.3, Maximum Depth = 27 feet, Secchi Disk = 15 feet

A soft water seepage lake having slightly acid, clear water of high transparency. The shoreline is 95 percent upland, consisting of mixed hardwoods and conifers, and 5 percent wetland of coniferous swamp. Littoral materials consist of gravel (45 percent), rubble (20 percent), sand (15 percent), muck (15 percent) and boulders (5 percent). Waterfowl make limited use of this lake. Largemouth bass are known to inhabit this lake and panfish are probably present as well. The Town of Lakewood provides public access without parking. Eleven dwellings are located on the shoreline.

Plantation Lake, T33N, R15E, Section 13

Surface Acres = 21.4, Maximum Depth = 17 feet, Secchi Disk = 4 feet

A very soft water seepage lake having slightly acid, light brown water of low transparency. The shoreline is 80 percent wetland and 20 percent upland. Littoral materials consist primarily of muck, with limited areas of sand, gravel and rubble. Waterfowl make limited use of this lake. Northern pike, bluegill and perch are known to inhabit this lake. Submergent aquatic vegetation is moderate in density in most of the littoral zone. Unimproved or difficult type public access is available from a town road. No dwellings are located on the shoreline.

Ponsegrau Lake, T30N, R18E, Section 7

Surface Acres = 1.7, Maximum Depth = 8 feet, Secchi Disk = 5 feet

A soft water seepage lake having slightly acid, medium brown water of low transparency. The entire shoreline is wetland of coniferous bog. Waterfowl make limited use of this lake. Muck occupies the entire littoral zone. This lake does not have a gamefish population. Winterkill is probable. Wilderness type public access is available from county land. No dwellings are located on the shoreline.

Porcupine Lake, T29N, R19E, Section 12

Surface Acres = 30.3, Maximum Depth = 20 feet, Secchi Disk = 5 feet

A hard water drainage lake having slightly alkaline, light brown water of low transparency. The outlet, Little River, flows to the Oconto River. Hardwood swamp wetland comprises the entire shoreline. Littoral materials are primarily muck, with a very limited area of sand. No information is available regarding the fish population, but conditions indicate that the lake will support warmwater game fish and panfish. The Town of Spruce provides public access with parking. No dwellings are located on the shoreline.

Quill Lake, T32N, R15E, Section 13

Surface Acres = 23.8, Maximum Depth = 31 feet, Secchi Disk = 16 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 90 percent upland, consisting of hardwoods, and 10 percent wetland of shrub meadow. Littoral materials consist of muck (58 percent), marl (40 percent) and sand (2 percent). Waterfowl make limited use of this lake. The fish population includes northern pike, largemouth bass, bluegill, perch and white sucker. Navigable water type public access is available via the outlet, and there is wilderness type public access from U. S. Forest Service land. Two dwellings are located on the shoreline.

Ranch Lake, T31N, R18E, Section 12

Surface Acres = 46.1, Maximum Depth = 40 feet, Secchi Disk = 13 feet

A medium hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is 95 percent upland, and 5 percent wetland. Littoral materials consist of sand (70 percent), muck (20 percent) and gravel (10 percent). Waterfowl make some use of this lake. The fish population includes largemouth bass, bluegill, perch and bullhead. Unimproved or difficult public access is available from county land. Twenty-nine dwellings are located on the shoreline.

Reader Lake, T31N, R18E, Section 13

Surface Acres = 6.1, Maximum Depth = 22 feet, Secchi Disk = 10 feet

A medium hard water seepage lake having slightly alkaline, clear water of moderate transparency. The shoreline is 90 percent wetland and 10 percent upland. Littoral materials consist of muck and marl. Waterfowl make limited use of this lake. The fish population includes largemouth bass and perch. The Town of Brazeau provides public access without parking. No dwellings are located on the shoreline.

Reservoir Pond, T33N, R15E, Section 28

Surface Acres = 408.7, Maximum Depth = 13 feet, Secchi Disk = 9 feet

A medium hard water drainage lake (impoundment) on McCaslin Brook having slightly alkaline, light brown water of moderate transparency. The shoreline is 75 percent upland, consisting of mixed hardwoods and conifers, and 25 percent wetland of open bog. The littoral zone is 95 percent muck, 4 percent sand, and 1 percent gravel. Waterfowl make moderate use of this flowage on their spring and fall migrations, and some puddle ducks nest here. Fish species inhabiting this flowage include muskellunge, walleye, northern pike, largemouth bass, bluegill, pumpkinseed, black crappie, perch, and white sucker. One hundred thirty dwellings and 3 resorts are located on the shoreline. The Town of Doty provides public access with parking, and navigable water type public access is available from Horn Lake. The dam has a head of 7 feet and is maintained by Oconto County.

Rice Lake - See Leigh Flowage

Rost Lake, T30N, R19E, Section 24

Surface Acres = 91.0, Maximum Depth = 29 feet, Secchi Disk = 17 feet

A medium hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is 95 percent upland and 5 percent wetland. Littoral materials consist of muck (50 percent), and sand (40 percent) and gravel (10 percent). Waterfowl make some use of this lake on their spring and fall migrations. The fish population includes northern pike, largemouth bass, bluegill, perch, black crappie and brown bullhead. The Town of Spruce provides public access with parking. Thirty-eight dwellings, one resort, and a boat rental are located on the shoreline.

Round Lake, T30N, R19E, Section 31

Surface Acres = 28.0, Maximum Depth = 31 feet, Secchi Disk = 10 feet

A medium hard water drained lake having neutral, light brown water of moderate transparency. The shoreline is 90 percent upland, consisting of hardwoods mixed with a few conifers, and 10 percent wetland of shrub meadow. Littoral materials consist of muck (90 percent) and sand (10 percent). The outlet flows to Kelly Lake. Waterfowl make limited use of this lake. The lake is reported to have a good bluegill population, but information on other fish species is lacking. The Town of Brazeau provides public access without parking. Thirteen dwellings are located on the shoreline.

Second Lake, T30N, R19E, Section 33

Surface Acres = 6.3, Maximum Depth = 30 feet, Secchi Disk = 6 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 90 percent upland, consisting of mixed hardwoods and conifers and 10 percent wetland of coniferous swamp. Littoral materials consist of muck (97 percent), sand (2 percent) and gravel (1 percent). Waterfowl make limited use of this lake. No information is available regarding the fish population, but conditions suggest that the lake may support largemouth bass and panfish. There is no public access. One dwelling is located on the shoreline.

Section 30 Lake, T32N, R15E, Section 30

Surface Acres = 6.9, Maximum Depth = 11 feet, Secchi Disk = 4 feet

A very soft water seepage lake having slightly acid, light brown water of low transparency. The entire shoreline is upland, consisting of hardwoods, conifers and cleared land. Littoral materials consist of muck (80 percent), sand (10 percent), gravel (5 percent) and rubble (5 percent). Waterfowl make limited use of this lake. Fishery information is lacking, however, largemouth bass and/or panfish maybe present. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Sellin Lake, T33N, R16E, Section 20

Surface Acres = 15.7, Maximum Depth = 17 feet, Secchi Disk = 5 feet

A soft water seepage lake having slightly acid, medium brown water of low transparency. The shoreline is 85 percent upland and 15 percent wetland. Littoral materials consist of sand (60 percent) and muck (40 percent). Waterfowl make limited use of this lake. Pumpkinseed and bullhead are known to inhabit this lake. Unimproved or difficult type public access is available from a town road. No dwellings are located on the shoreline.

Shadow Lake, T32N, R15E, Section 25

Surface Acres = 26.8, Maximum Depth = 7 feet, Secchi Disk = 4 feet

A hard water drained lake having alkaline, medium brown water of low transparency. The shoreline is primarily upland, consisting of hardwoods, with a limited area of shrub meadow wetland. The entire littoral zone is muck. Waterfowl make limited use of this lake. If winterkill is not a problem, panfish and/or northern pike or largemouth bass may be present. Unimproved or difficult type public access is available from a town road. No dwellings are located on the shoreline.

Shay Lake, T31N, R18E, Section 18

Surface Acres = 66.2, Maximum Depth = 39 feet, Secchi Disk = 9 feet

A hard water spring lake having slightly alkaline, clear water of moderate transparency. The shoreline is 95 percent upland, consisting of hardwoods and a few conifers, and 5 percent wetland of coniferous swamp. Littoral materials consist of marl and muck. Waterfowl make some use of this lake on their spring and fall migrations. Fish species known to inhabit this lake include largemouth bass, bluegill, pumpkinseed, and perch. The Town of Brazeau provides public access without parking. Twenty-eight dwellings are located on the shoreline.

Shay Lake, T32N, R15E, Section 17

Surface Acres = 49.8, Maximum Depth 36 feet, Secchi Disk = 17 feet

A medium hard water seepage lake having slightly acid, clear water of high transparency. Ninety eight percent of the shoreline is upland, consisting of mixed hardwoods and conifers, and 2 percent is wetland of shrub meadow. Littoral materials consist of sand (40 percent), muck (40 percent), gravel (10 percent) and rubble (10 percent). Waterfowl make limited use of this lake. A fish population of walleye, largemouth bass, bluegill, pumpkinseed, rock bass, perch, white sucker and golden shiner is present. There is no public access. Nine dwellings and one resort are located on the shoreline.

Small Bass Lake, T32N, R15E, Section 14

Surface Acres = 18.7, Maximum Depth = 27 feet, Secchi Disk = 16 feet

A medium hard water seepage lake having neutral, clear water of high transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. The littoral zone consists of muck (75 percent), rubble (15 percent), sand (5 percent) and boulders (5 percent). Waterfowl make little use of this lake. The fish population includes largemouth bass, bluegill and perch. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Smoke Lake, T33N, R15E, Section 14

Surface Acres = 51.3, Maximum Depth = 7 feet, Secchi Disk = greater than 7 feet

A hard water spring lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 70 percent wetland and 30 percent upland. Littoral materials consist of muck (95 percent) and sand (5 percent). Waterfowl make limited use of this lake. A moderate density of aquatic vegetation is common throughout the lake basin. This lake winterkills occasionally, but at the time of field investigation, largemouth bass and bluegill were present. Navigable water type public access is available via the outlet which flows to Pickerel Creek. Three dwellings are located on the shoreline.

South Mountain Lake, T31N, R15E, Section 12

Surface Acres = 9.7, Maximum Depth = 8 feet, Secchi Disk = greater than 8 feet

A medium hard water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is all upland, consisting of hardwoods and a few conifers. Littoral materials consist of muck (70 percent), sand (10 percent), gravel (10 percent), rubble (5 percent) and boulders (5 percent). Waterfowl make limited use of this lake. Floating and submergent aquatic vegetation are common throughout the lake basin. The lake has a fish population of bluegill and minnows. Unimproved or difficult type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Spice Lake, T28N, R18E, Section 5

Surface Acres = 19.9, Maximum Depth = 34 feet, Secchi Disk = 3 feet

A hard water seepage lake having slightly alkaline, medium brown water of low transparency. The shoreline is 70 percent wetland, consisting of primarily of hardwood swamp, and 30 percent upland, of hardwoods. Muck occupies the entire littoral zone. Waterfowl make limited use of this lake. Carp are the only fish species known to be present and are causing a turbidity problem. There is no public access. One dwelling is located on the shoreline.

Spies Lake, T30N, R18E, Section 12

Surface Acres = 5.7, Maximum Depth = 4 feet, Secchi Disk = greater than 4 feet

A hard water seepage lake having neutral, light brown water of moderate transparency. The shoreline is 50 percent wetland of open meadow and 50 percent upland, consisting of hardwoods, conifers and cleared land. The littoral zone is composed of muck. Waterfowl make some use of this lake. Aquatic vegetation is common throughout the lake basin. No fish population is known to be present and winterkill can be expected. Unimproved or difficult type public access is available from a town road. No dwellings are located on the shoreline.

Spring Lake, T33N, R15E, Section 2

Surface Acres = 12.5, Maximum Depth = 14 feet, Secchi Disk = greater than 14 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The shoreline is 70 percent upland, consisting of hardwoods, and 30 percent wetland of shrub meadow. The littoral zone is 50 percent marl, 30 percent muck, 10 percent sand, 5 percent gravel and 5 percent rubble. Waterfowl make limited use of this lake. Northern pike, largemouth bass, bluegill and black crappie are known to inhabit this lake. About half of the lake basin is less than 3 feet deep. Unimproved or difficult type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Squaw Lake, T30N, R18E, Section 24

Surface Acres = 22.2, Maximum Depth 19 feet, Secchi Disk = 10 feet

A hard water seepage lake having slightly alkaline, light brown water of moderate transparency. The shoreline is 80 percent wetland, consisting of coniferous bog, and 20 percent upland of mixed hardwoods and conifers. The entire littoral zone is muck. Waterfowl make limited use of this lake. Submergent and floating aquatic vegetation are relatively dense in the lake's littoral area. The known fish population consists of northern pike, largemouth bass, bluegill, and perch. The lake is reported to have had a winterkill in 1964. There is no public access. Four dwellings are located on the shoreline.

Star Lake, T32N, R15E, Section 26

Surface Acres = 63.0, Maximum Depth = 21 feet, Secchi Disk = 11 feet

A medium hard water seepage lake having slightly alkaline, clear water of moderate transparency. The shoreline is 98 percent upland, consisting of mixed hardwoods and conifers, and 2 percent wetland of coniferous bog. The littoral zone is composed of 50 percent muck, 40 percent sand and 10 percent gravel. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, bluegill, rock bass and perch. The Town of Doty provides public access with parking. Twenty-seven dwellings are located on the shoreline.

Sullivan Springs, T33N, R16E, Section 36

Surface Acres = 3.6, Maximum Depth = 2 feet, Secchi Disk = greater than 2 feet

A hard water spring pond having slightly alkaline, clear water of moderate transparency. The outlet flows to the North Branch of the Oconto River. The entire shoreline is wetland. The littoral zone is composed of muck. Waterfowl make limited use of this pond. A good population of brook trout is present. Submergent vegetation of moderate density occupies about 60 percent of the basin. Unimproved or difficult type public access is available from a town road. No dwellings are located on the shoreline.

Sunrise Lake, T32N, R17E, Section 29

Surface Acres = 21.6, Maximum Depth = 32 feet, Secchi Disk = 18 feet

A very soft water seepage lake having slightly acid, clear water of high transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. The littoral zone is 89 percent sand, 10 percent muck and 1 percent boulders. Waterfowl make limited use of this lake. The fish population consists of largemouth bass, bluegill and forage fish. There is no public access. One dwelling is located on the shoreline.

Surprise Lake, T33N, R15E, Section 10

Surface Acres = 69.5, Maximum Depth = 30 feet, Secchi Disk = 13 feet

A soft water seepage lake having slightly acid, clear water of high transparency. The shoreline is 90 percent upland, consisting of mixed hardwoods and conifers, and 10 percent wetland, of coniferous bog. Littoral materials consist of rubble (60 percent) sand (20 percent), gravel (15 percent) and muck (5 percent). Waterfowl make limited use of this lake. The fish population includes largemouth bass, bluegill, pumpkinseed and bullhead. Public access without parking is available from a Town of Townsend landing. Forty-four dwellings are located on the shoreline.

Swanson's Lake, T32N, R15E, Section 12

Surface Acres = 3.5, Maximum Depth = 11 feet, Secchi Disk = greater than 11 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The shoreline is 80 percent upland, consisting of hardwoods and conifers, and 20 percent wetland, of coniferous bog. The entire littoral zone is muck. Waterfowl make limited use of this lake. A moderate density of floating and submergent aquatic vegetation is found in about 40 percent of the lake basin. The outlet flows to Camp Lake. Largemouth bass and bluegill are known to inhabit this lake. There is no public access. No dwellings are located on the shoreline.

Temple Lake, T31N, R16E, Section 19

Surface Acres = 19.7, Maximum Depth = 3 feet, Secchi Disk = greater than 3 feet

A hard water drainage lake having slightly alkaline, clear water of moderate transparency. The outlet flows to the South Branch of the Oconto River. The immediate shoreline is wetland, with upland near the lake in several areas. Littoral materials consist of silt (75 percent) and muck (25 percent). Waterfowl make moderate use of this lake. Floating aquatic vegetation is moderate in density in about 45 percent of the lake basin. Largemouth bass, perch, suckers, and minnows are present. Wilderness type public access is available from U. S. Forest Service land. Two dwellings are located on the shoreline.

Trout Lake, T32N, R15E, Section 21

Surface Acres = 21.9, Maximum Depth = 25 feet, Secchi Disk = greater than 25 feet.

A hard water spring lake having slightly alkaline, clear water of very high transparency. The outlet forms Hill's Pond Creek. The shoreline is 85 percent upland, consisting of hardwoods and 15 percent wetland of coniferous bog. Littoral materials are marl (80 percent), silt (18 percent) and rubble (2 percent). Waterfowl make little use of this lake. The lake has a largemouth bass and panfish population. There is no public access. No dwellings are located on the shoreline.

Turtle Lake, T30N, R18E, Section 35

Surface Acres = 4.0, Maximum Depth = 5 feet, Secchi Disk = 2 feet

A medium hard water seepage lake having slightly acid, medium brown water of low transparency. Coniferous swamp wetland occupies the entire shoreline. The littoral zone is composed of muck. Waterfowl make limited use of this lake. The fishery is unknown, however, winterkill is probable. Wilderness type public access is available from county land. No dwellings are located on the shoreline.

Ucil Lake, T30N, R18E, Section 13

Surface Acres = 22.3, Maximum Depth = 33 feet, Secchi Disk = 13 feet

A hard water seepage lake having slightly alkaline, light brown water of high transparency. A channel connects this lake to Veil Lake. The entire shoreline is upland, consisting of mixed hardwoods and conifers. Littoral materials consist of muck (99 percent) and sand (1 percent). Waterfowl make limited use of this lake. The fish population includes northern pike, largemouth bass, bluegill, pumpkinseed, perch and black crappie. Navigable water type public access is available from Veil Lake. Four dwellings are located on the shoreline.

Underwood Lake, T30N, R19E, Section 30

Surface Acres = 43.2, Maximum Depth = 36 feet, Secchi Disk = 13 feet

A soft water seepage lake having slightly acid, clear water of high transparency. The entire shoreline is upland, consisting of hardwoods. The littoral zone is composed of 80 percent sand, 10 percent gravel, and 10 percent muck. Waterfowl make limited use of this lake. The fish population consists of northern pike, largemouth bass, bluegill, pumpkinseed and perch. The Town of Brazeau provides public access without parking. Thirty-eight dwellings are located on the shoreline.

Upper Island Lake, T32N, R15E, Section 13

Surface Acres = 15.9, Maximum Depth = 18 feet, Secchi Disk = 15 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The Second South Branch of the Oconto River flows through this lake. The entire shoreline is wetland. Littoral materials consist of 60 percent muck, 30 percent silt and 10 percent detritus. Waterfowl make light use of this lake. The fish population consists of northern pike, largemouth bass, bluegill, pumpkinseed, rock bass and bullhead. Submergent and floating vegetation exist in moderate densities. Navigable water type public access is available from Big Island Lake and the wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Upper Jones Springs, T32N, R15E, Section 7

Surface Acres = 3.8, Maximum Depth = 12 feet, Secchi Disk = greater than 12 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The outlet flows to Lower Jones Springs. The entire shoreline is upland, consisting of hardwoods. Littoral materials consist of muck (65 percent), marl (20 percent), sand (5 percent), gravel (5 percent) and rubble (5 percent). Waterfowl make limited use of this lake. Trout are the dominant fish species present. Submergent vegetation of moderate density occupies about 60 percent of the basin. This pond was dredged by the Department of Natural Resources as part of the spring pond dredging program. Unimproved or difficult public access is available from a trail road over U. S. Forest Service lands. No dwellings are located on the shoreline.

Upper Range Lake, T32N, R15E, Section 13

Surface Acres = 3.5, Maximum Depth = 16 feet, Secchi Disk = 13 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The Second South Branch of the Oconto River flows through this lake. The shoreline is 60 percent upland, consisting of hardwoods and 40 percent wetland of the open meadow type. Muck covers the entire littoral zone. Waterfowl make limited use of this lake. The known fish population consists of largemouth bass and bluegill. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Upper Wapato Lake, T33N, R15E, Section 31

Surface Acres = 49.6, Maximum Depth = 10 feet, Secchi Disk = 7 feet

A hard water drainage lake having alkaline, light brown water of moderate transparency. The shoreline is 80 percent upland and 20 percent wetland. Littoral materials consist of muck (75 percent), gravel (15 percent) and rubble (10 percent). Waterfowl make limited use of this lake. Northern pike, bluegill, pumpkinseed, perch and bullhead are known to inhabit this lake. The outlet flows to Lower Wapato Lake. Unimproved or difficult type public access is available from a town road. Ten dwellings are located on the shoreline.

Upper Wheeler Pond, T33N, R15E, Section 15

Surface Acres = 140.4, Maximum Depth = 10 feet, Secchi Disk = 8 feet

A hard water drainage lake (impoundment) on McCaslin Brook having neutral, light brown water of moderate transparency. Littoral materials consist of muck (75 percent), sand (15 percent), and gravel (10 percent). Waterfowl make moderate use of this lake on their spring and fall migrations and some puddle ducks nest here. The fish population includes northern pike, largemouth bass, bluegill, pumpkinseed, black crappie, perch, bullhead and white sucker. Dense floating vegetation and moderately dense submergent vegetation occupy most of the littoral zone. Unimproved or difficult public access is available from a town road. Sixty-nine dwellings, one resort, and a boat rental are located on the shoreline.

Veil Lake, T30N, R18E, Section 13

Surface Acres = 53.8, Maximum Depth = 13 feet, Secchi Disk = 12 feet

A medium hard water seepage lake having alkaline, light brown water of high transparency. The shoreline is primarily upland, consisting of mixed hardwoods and conifers, with a limited amount of shrub meadow wetland. Littoral materials consist of muck (64 percent), marl (25 percent), sand (10 percent) and gravel (1 percent). Waterfowl make limited use of this lake. The fish population consists of northern pike, largemouth bass, bluegill, black crappie and perch. Submergent vegetation of moderate density occupies 80 percent of the basin. The Town of Bagley provides public access with parking. A navigable channel connects this lake to Ucil Lake. Twenty dwellings are located along the shoreline.

Wades Lake, T32N, R15E, Section 23

Surface Acres = 2.9, Maximum Depth = 7 feet, Secchi Disk = greater than 7 feet

A hard water spring pond having slightly alkaline, clear water. The shoreline is wetland of the coniferous bog type. The outlet is tributary to Deadman Creek. Muck covers the entire littoral zone. Waterfowl make limited use of this pond. No information is available regarding the fish population, however, forage species are probably present. Wilderness type public access is available from U. S. Forest Service land. Dense submergent aquatic vegetation occupies 60 percent of the basin. No dwellings are located on the shoreline.

Warington Lake, T28N, R17E, Section 31

Surface Acres = 11.4, Maximum Depth = 20 feet, Secchi Disk = 8 feet

A very soft water seepage lake having slightly acid, light brown water of moderate transparency. The shoreline is 100 percent upland, consisting primarily of hardwood, with a few conifers. Littoral materials consist of sand (70 percent) and muck (30 percent). Waterfowl make limited use of this lake. The only fish known to be present are forage species, but largemouth bass and panfish may also inhabit this lake. Floating and submergent vegetation of moderate density occupies most of the littoral area. There is no public access. Eight dwellings are located on the shoreline.

Waubee Lake, T33N, R16E, Section 13

Surface Acres = 136.5, Maximum Depth = 20 feet, Secchi Disk = greater than 20 feet

A medium hard water seepage lake having slightly alkaline, clear water of high transparency. The shoreline is primarily upland, consisting of mixed hardwoods and conifers, with a limited area of shrub meadow wetland. Littoral materials consist of sand (70 percent), gravel (20 percent), rubble (5 percent) and muck (5 percent). Waterfowl make limited use of this lake. The fish population consists of muskellunge, walleye, largemouth bass, bluegill, pumpkinseed, black crappie, rock bass, perch, white sucker and bullhead. The Town of Riverview provides public access with parking. Sixty-six dwellings and two resorts are located along the shoreline.

Waupee Lake, T31N, R17E, Section 3

Surface Acres = 34.3, Maximum Depth = 2 feet, Secchi Disk = greater than 2 feet

A hard water seepage lake having alkaline, light brown water. The shoreline is 90 percent wetland of the coniferous swamp type and 10 percent upland, consisting of mixed hardwoods and conifers. The entire littoral zone is silt. Waterfowl make moderate use of this lake on their spring and fall migrations. Emergent vegetation of moderate density occupies 60 percent of the basin. Forage species comprise the fish population and winterkill is to be expected. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located on the shoreline.

Waupee Flowage, T32N, R17E, Section 21

Surface Acres = 80.0, Maximum Depth = 9 feet, Secchi Disk = greater than 9 feet

A medium hard water impoundment on Waupee Creek having slightly acid, light brown water of moderate transparency. The shoreline is 55 percent upland, consisting of hardwoods and conifers, and 45 percent wetland of the shrub meadow type. The littoral zone consists of muck (55 percent), sand (20 percent), rubble (15 percent), gravel (5 percent) and boulders (5 percent). Sixty percent of the basin is less than three feet deep. Waterfowl make moderate use of this flowage on their spring and fall migrations and some puddle ducks nest here. Submergent and floating vegetation occupy most of the basin. Bluegill and forage species are the only fish known to inhabit this lake. The Town of Riverview provides public access with parking. Oconto County owns the dam which holds nine head feet of water. Five dwellings are located on the shoreline.

Wescott Lake, T30N, R18E, Section 24

Surface Acres = 38.0, Maximum Depth = 29 feet, Secchi Disk = 13 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet, Bagley Creek, flows to Funk Lake. The entire shoreline is upland. Littoral materials consist of muck (80 percent), and sand (20 percent). Waterfowl make limited use of this lake. The fish population includes largemouth bass, bluegill, pumpkinseed, black crappie, perch and bullhead. Sixty-five percent of the basin is over 20 feet deep. The Town of Bagley provides public access with parking. Nine dwellings are located on the shoreline.

West Twin Lake, T32N, R15E, Section 29

Surface Acres = 5.5, Maximum Depth = 11 feet, Secchi Disk = 4 feet

A very soft water seepage lake having slightly acid, medium brown water of low transparency. The shoreline is 80 percent upland, consisting of mixed hardwoods and conifers, and 20 percent wetland of the coniferous bog type. Littoral materials are 98 percent muck and 2 percent boulders. Waterfowl make limited use of this lake. The fish population consists of forage species. Wilderness type public access is available from U. S. Forest Service land. No dwellings are located along the shoreline.

Westphall Lake, T31N, R17E, Section 21

Surface Acres = 24.3, Maximum Depth = 10 feet, Secchi Disk = 4 feet

A soft water seepage lake having slightly alkaline, light brown water of low transparency. The shoreline is 60 percent wetland of the coniferous swamp type and 40 percent upland consisting of mixed hardwoods and conifers. Littoral materials are 80 percent muck and 20 percent sand. Waterfowl make limited use of this lake. No game fish are known to inhabit this lake. Submergent vegetation of moderate density occupies about 40 percent of the basin. Wilderness type public access is available from U. S. Forest Service land. Three dwellings are located on the shoreline.

Wheeler Lake, T33N, R16E, Section 22

Surface Acres = 293.0, Maximum Depth 35 feet, Secchi Disk = 13 feet

A medium hard water seepage lake having neutral, clear water of high transparency. The entire shoreline is upland, consisting of mixed hardwoods and conifers. Littoral materials consist of gravel (40 percent), rubble (30 percent), sand (20 percent) and muck (10 percent). Waterfowl make light use of this lake. The fish population consists of walleye, largemouth bass, northern pike, smallmouth bass, bluegill, perch and white sucker. Public access with parking is available. One hundred twenty dwellings and two resorts are located along the shoreline.

White Lake, T30N, R18E, Section 36

Surface Acres = 49.5, Maximum Depth = 49 feet, Secchi Disk = 17 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The outlet flows to Kelly Brook. The shoreline is 90 percent upland and 10 percent wetland. Littoral materials are sand (90 percent) and muck (10 percent). Waterfowl make limited use of this lake. The fish population consists of northern pike, largemouth bass, bluegill, perch, bullhead and splake. Eighty percent of this lake is over 20 feet deep. The Town of Bagley provides public access with parking. Thirty-two dwellings are located on the shoreline.

White Potato Lake, T31N, R18E, Section 23

Surface Acres = 978.0, Maximum Depth = 11 feet, Secchi Disk = greater than 11 feet

A medium hard water seepage lake having neutral, light brown water of moderate transparency. The shoreline is 75 percent upland, primarily of mixed hardwoods and conifers, and 25 percent wetland of the coniferous swamp type. Littoral materials consist of sand (50 percent), muck (45 percent), and gravel (5 percent). Waterfowl make moderate use of this lake on their spring and fall migrations. A heavy growth of rooted aquatic plants cause use problems in the summer. Fish species inhabiting this lake include muskellunge, walleye, largemouth bass, smallmouth bass, bluegill, pumpkinseed and perch. This lake suffers from oxygen depletion during some winters, but is usually not severe enough to cause a complete winterkill. Public access with parking is available at three township and one county landing. Public access without parking is available at three township landings. One hundred, thirty-nine dwellings, one resort, one motel, one campground and one picnic site are located along the shoreline.

Wichser Lake, T32N, R15E, Section 19

Surface Acres = 14.9, Maximum Depth = 61 feet, Secchi Disk = 12 feet

A very soft water seepage lake having slightly acid, light brown water of high transparency. The entire shoreline is upland, consisting of hardwoods. Littoral materials consist of muck (65 percent), sand (15 percent), gravel (10 percent), and rubble (10 percent). Waterfowl make limited use of this lake. The known fish population consists of largemouth bass, green sunfish and perch. Unimproved or difficult type public access is available from U. S. Forest Service land. One dwelling is located on the shoreline.

Winslow Lake, T32N, R16E, Section 8

Surface Acres = 58.0, Maximum Depth = 33 feet, Secchi Disk = 14 feet

A hard water spring lake having slightly alkaline, clear water of high transparency. The outlet flows to the First South Branch of the Oconto River. Littoral materials consist of marl (50 percent), silt (24 percent), muck (20 percent), sand (2 percent), gravel (2 percent), and rubble (2 percent). Waterfowl make light use of this lake. The fish population consists of largemouth bass, northern pike and panfish. There is no public access. At present no developments are located on the shoreline, however a private developer is subdividing the shoreline.

Wiscobee Lake, T29N, R17E, Section 5

Surface Acres = 32.1, Maximum Depth = 40 feet, Secchi Disk = 9 feet

A hard water drainage lake having slightly alkaline, light brown water of moderate transparency. The outlet is tributary to Pecore Creek. The entire shoreline is coniferous bog wetland. Littoral materials are muck (50 percent), and marl (50 percent). Waterfowl make limited use of this lake. The fish population consists of largemouth bass, northern pike and panfish. The Town of How provides public access with parking. One boat rental is located on the shoreline.

Yavell Lake, T32N, R15E, Section 12

Surface Acres = 14.7, Maximum Depth = 43 feet, Secchi Disk = 14 feet

A hard water drainage lake having slightly alkaline, clear water of high transparency. The outlet flows to French Lake. The entire shoreline is upland consisting of hardwoods. Muck covers the entire littoral zone. Waterfowl make limited use of this lake. Fish species inhabiting this lake include northern pike, largemouth bass, bluegill and perch. Moderate to dense stands of submergent and floating vegetation occupy about 20 percent of the lake. There is no public access. Two dwellings are located on the shoreline.

Named Streams

Archibald Creek, T33N, R15E, Section 18
Surface Acres = 1.1, Average Width = 6 feet, Length = 1.5 miles

A hard water stream having slightly alkaline, clear water. Tributary to McCaslin Brook. Brook trout inhabit this creek. Due to the stream's small size, wildlife and waterfowl use is limited. The watershed is wooded or wild. Public access is available from one town road crossing and from 1.9 miles of public frontage.

Bagley Creek, T30N, R18E, Section 20
Surface Acres = 3.1, Average Width = 6 feet, Length = 4.2 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Peshtigo Brook. The fish population consists primarily of forage species. Wildlife values are limited due to the stream's small size. Public access is available from two road crossings and on 0.8 mile public frontage. The watershed is primarily forest land with scattered areas of agriculture.

Baldwin Creek, T31N, R17E, Section 8
Surface Acres = .8, Average Width = 6 feet, Length = 1.6 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Waupee Creek. This stream is considered Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available from two road crossings and on 3.8 miles of public frontage. The watershed consists of forest lands.

Battle Creek, T33N, R16E, Section 11
Surface Acres = 1.8, Average Width = 5 feet, Length = 2.9 miles

A medium hard water stream having slightly alkaline, clear water. Tributary to the North Branch of the Oconto River. This stream is Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and on 2.2 miles of public frontage. Forest lands dominate the watershed.

Beaver Creek, T29N, R20E, Section 31
Surface Acres = 1.8, Average Width = 4 feet, Length = 3.6 miles

A hard water stream having slightly alkaline, medium brown water. Tributary to Kelly Brook. The known fish population consists of forage species. Wildlife values are limited due to the stream's small size. Public access is available only at four road crossings. Land use in the watershed is divided between forest cover and agriculture.

Bonita Creek, T31N, R16E, Section 35
Surface Acres = .7, Average Width = 5 feet, Length = 1.2 miles

A hard water stream having slightly alkaline, light brown water. Flows to Chute Pond. This stream is Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and to the entire stream from 2.4 miles of public frontage. Forest lands dominate the watershed.

Boulder Creek, T31N, R15E, Section 22
Surface Acres = 1.6, Average Width = 10 feet, Length = 1.3 miles

A hard water stream having slightly acid, clear water. Tributary to the South Branch of the Oconto River, a trout stream. Forage species are the dominant fish present although trout are present seasonally. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and from 1.1 miles of public frontage. The watershed is primarily forest lands.

Brehmer Creek, T28N, R20E, Section 33
Surface Acres = 2.5, Average Width = 8 feet, Length = 2.6 miles

A hard water stream having slightly alkaline, clear water. This stream flows to Machickanee Flowage. This stream is considered Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available at two road crossings and on 4.2 miles of public frontage. Land use in the watershed is divided between agriculture and forest production.

Brooks Creek, T29N, R18E, Section 34
Surface Acres = 2.0, Average Width = 8 feet, Length = 2.1 miles

A very hard water stream having slightly alkaline, light brown water. This stream is tributary to Daley Creek. Forage fish comprise the fish population. Wildlife values are limited due to the stream's small size. Public access is provided only at one road crossing. Land use within the watershed is devoted primarily to agriculture.

Christie Brook, T28N, R18E, Section 25
Surface Acres = 3.2, Average Width = 5 feet, Length = 5.2 miles

A hard water stream having slightly alkaline, light brown water. Tributary to the Oconto River. The known fish population consists of forage species. Wildlife make limited use of the stream due to its small size. Public access is available only at three road crossings. Land use in the watershed is divided between agriculture and woodlands.

Coopman Creek, T28N, R19E, Section 36
Surface Acres = 2.3, Average width = 7 feet, Length = 2.7 miles

A hard water stream having slightly alkaline, medium brown water. Tributary to the Oconto River. This stream is Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing. Land cover in the watershed is woodlands and agriculture.

Daley Creek, T29N, R19E, Section 32
Surface Acres = 11.5, Average Width = 13 feet, Length = 7.3 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Kelly Brook. The known fish population consists of forage species. Furbearers and waterfowl make light use of this stream. Public access is available at four road crossings. Land use in the watershed is devoted to agriculture and woodlands.

Deadman Creek, T32N, R15E, Section 25
Surface Acres = 3.0, Average Width = 8 feet, Length = 3.1 miles

A hard water stream having slightly alkaline, clear water. This stream originates in Deadman Lake and is tributary to the Second South Branch of the Oconto River. The game fish population consists of brook trout and the stream is considered Class II trout water. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and on 4.4 miles of public frontage. The watershed is predominantly wooded and/or wild lands.

Deer Creek, T30N, R18E, Section 23
Surface Acres = 0.2, Average Width = 2 feet, Length = 0.7 mile

A hard water stream having alkaline, clear water. This stream originates in Deer Lake and flows to Bagley Creek. Wildlife values are limited due to the stream's small size. The fish population consists of forage species. There is no public access. The watershed is devoted to forest lands.

Dump Creek, T28N, R19E, Section 36
Surface Acres = 1.0, Length = 1.3 miles, Average Width = 6 feet

A hard water stream having alkaline, clear water. Tributary to Oconto River.
The entire length of Dump Creek is considered Class I brook trout water. Wildlife values are limited due to the small size of the stream. Public access is available along 1.3 miles of public frontage.

East Thunder Creek, T33N, R17E, Section 6
Surface Acres = 1.6, Average Width = 8 feet, Length = 1.7 miles

A medium hard water stream having slightly alkaline, clear water. This stream joins West Thunder Creek to form the North Branch of the Thunder River. Brook trout inhabit this stream and it is considered Class I trout water. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and on 3.4 miles of public frontage. The entire watershed is forested.

Fenske Creek, T33N, R16E, Section 9
Surface Acres = 1.6, Average Width = 5 feet, Length = 2.6 miles

A hard water stream having slightly alkaline, clear water. Tributary to the North Branch of the Oconto River. The game fish population consists primarily of brook trout with the upper mile considered Class I water and the lower 1.6 miles Class II. Wildlife values are limited due to the stream's small size. Public access is available at two road crossings and on 3.2 miles of public frontage. Land use in the watershed is devoted to forest production.

First South Branch of the Oconto River, T31N, R16E, Section 31
Surface Acres = 35.6, Average Width = 26 feet, Length = 11.7 miles

A hard water stream having slightly alkaline, clear water. This stream originates in Little Maiden Lake and flows into Menominee County. The lower two-thirds of the stream is trout water (Class I and II) with a good population of brook and brown trout present. Public access is available at ten road crossings and on 28.6 miles of public frontage. The primary land use within the watershed is the production of forest products with only very limited areas of agriculture present.

Forbes Creek, T33N, R17E, Section 36
Surface Acres = 3.3, Average Width = 6 feet, Length = 4.6 miles

A hard water stream having slightly alkaline, clear water. Tributary to Hay Creek. This stream is considered Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available at two road crossings and from 7.4 miles of public frontage. Land use in the watershed is devoted to forest production.

Hay Creek, T33N, R17E, Section 36
Surface Acres = 4.4, Average Width = 6 feet, Length = 6.1 miles

A hard water stream having slightly alkaline, light brown water. This stream flows into Marinette County. An excellent population of native brook trout is present in this Class I trout stream. Wildlife values are limited although a few furbearers utilize this stream. Public access is available at two road crossings and from 7.4 miles of public frontage. The entire watershed is forest lands.

Hayes Creek, T29N, R17E, Section 4
Surface Acres = 5.7, Average Width = 9 feet, Length = 5.2 miles

A hard water stream having neutral, light brown water. Tributary to Pecore Creek. The stream is considered Class III trout water. Wildlife values are limited due to the stream's small size. Public access is available at four road crossings. The watershed is devoted primarily to agriculture although woodlots and wetlands are found along the stream.

Hills Pond Creek, T31N, R15E, Section 9
Surface Acres = 10.0, Average Width = 15 feet, Length = 5.5 miles

A hard water stream having slightly alkaline, clear water. This stream originates in Trout Lake (T32N, R15E) and is tributary to the South Branch of the Oconto River. A few furbearers inhabit the stream, but in general wildlife values are limited due to its small size. A good population of native brook and brown trout are present in this Class I trout stream. Public access is available at two road crossings and from 8.3 miles of public frontage. Forest production is the primary land use in the watershed.

Hines Creek, T31N, R17E, Section 19
Surface Acres = 5.9, Average Width = 11 feet, Length = 4.4 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Waupee Creek. The entire stream is considered Class I brook trout water. Wildlife values are limited due to its small size. Public access is available at three road crossings and on 8.2 miles of public frontage. The entire watershed is devoted to forest production.

John Creek, T33N, R16E, Section 14
Surface Acres = 5.9, Average Width = 35 feet, Length = 1.4 miles

A hard water stream having slightly alkaline, light brown water. Tributary to the North Branch of the Oconto River. The fish population consists primarily of forage species, although a few warm water game fish are probably present. Furbearers and waterfowl make light use of this stream. Public access is available at one road crossing and on 1.2 miles of public frontage. The entire watershed is forested.

Jones Creek, T32N, R15E, Section 18
Surface Acres = 8.2, Average Width = 25 feet, Length = 2.7 miles

A hard water stream having slightly alkaline, clear water. This stream flows into Langlade County. The entire stream is Class I brook trout water. Wildlife values are limited due to the stream's small size, although beaver have been present in the past. Public access is available at one road crossing and on 5.4 miles of public frontage. The entire watershed is forested.

Kelly Brook, T29N, R20E, Section 12
Surface Acres = 54.6, Average Width = 23 feet, Length = 19.6 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Little River. The fish population consists primarily of forage species, but a few warm water game fish are present, especially during spawning runs. Furbearers such as mink and muskrat make use of this stream, as well as a few puddle ducks. Public access is available at fifteen road crossings. The dominant land use within the watershed is agriculture.

Klatt Creek, T28N, R17E, Section 36
Surface Acres = 4.7, Average Width = 9 feet, Length = 4.3 miles

A hard water stream having alkaline, clear water. Tributary to the Oconto River. Considered a Class III trout stream, with brook trout present. Wildlife values are limited due to the stream's small size. Public access is available from two road crossings. This stream is set aside for a children's fishing area. The primary land use in the watershed is agriculture.

Knowles Creek, T33N, R16E, Section 4
Surface Acres = 6.1, Average Width = 10 feet, Length = 5.0 miles

A medium hard water stream having slightly alkaline, light brown water. Tributary to the North Branch of the Oconto River. The entire stream is considered Class I brook trout water. Wildlife makes limited use of this stream due to its small size. Public access is available at one road crossing and on 9.5 miles of public frontage. Land use within the watershed is devoted to forest production.

Linzy Creek, T28N, R17E, Section 15
Surface Acres = 4.8, Average Width = 17 feet, Length = 5.5 miles

A medium hard water stream having slightly alkaline, light brown water. Tributary to the Oconto River. The stream is considered Class III trout water, with brown trout present. Wildlife values are limited due to the stream's small size. Public access is available at four road crossings. Land use within the watershed consists primarily of agriculture.

Little River, T28N, R21E, Section 30
Surface Acres = 51.2, Average Width = 25 feet, Length = 16.9 miles

A very hard water stream having slightly alkaline, light brown water. Tributary to the Oconto River. Forage species make up the bulk of the fish population, but northern pike and panfish are also present. Furbearers as well as a few puddle ducks make use of this stream. Public access is available at 15 road crossings. Land use in the watershed is primarily agriculture, resulting in erosion and considerable bank destruction.

Little Suamico River, T26N, R21E, Section 29
Surface Acres = 42.8, Average Width = 21 feet, Length = 16.8 miles

A very hard water stream having alkaline, light brown water. This stream flows into Green Bay. Forage species comprise most of the fish population, although a few northern pike and panfish are present. Waterfowl and furbearers make light use of this stream. Public access is available at 9 road crossings. Intensive agriculture along the stream is causing erosion and an increased nutrient level in the water.

Little Waupee Creek, T31N, R17E, Section 19
Surface Acres = 6.6, Average Width = 9 feet, Length = 6.2 miles

A medium hard water stream having slightly acid, light brown water. Tributary to Waupee Creek. This stream is considered Class I trout water and contains brook trout. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and on 8.6 miles of public frontage. Land use in the watershed is devoted primarily to forest production.

Lost Creek, T31N, R18E, Section 15
Surface Acres = 0.8, Average Width = 5 feet, Length = 1.3 miles

A hard water stream having slightly alkaline, light brown water. This stream originates in Lost Lake (T31N, R18E) and flows through the Brazeau Swamp until it reaches Peshtigo Brook. Wildlife values are limited due to the stream's small size. No information is available regarding the fish population although forage species are probably present. The entire stream is in public ownership, thereby providing wilderness type public access. Land use within the watershed is devoted to forest production.

Mary Creek, T32N, R15E, Section 7
Surface Acres = 2.3, Average Width = 6 feet, Length = 3.1 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Jones Creek, a trout stream. Wildlife values are limited due to the stream's small size. Forage species are the dominant fish present although trout are present at times. Public access is available from 2.4 miles of public frontage. Land use within the watershed is devoted to the production of forest products.

McCaslin Brook, T32N, R16E, Section 13
Surface Acres = 64.7, Average Width = 34 feet, Length = 15.7 miles

A hard water stream having slightly alkaline, clear water. Tributary to the North Branch of the Oconto River. The upper two and one-half miles are considered Class I brook trout water while the remainder is Class II trout water inhabited by brown and brook trout. Furbearers and a few puddle ducks make use of this stream. Public access is available at 8 road crossings and on 9.8 miles of public frontage. The watershed is primarily forested, with only scattered areas of agriculture.

McCauley Creek, T31N, R17E, Section 5
Surface Acres = 5.0, Average Width = 9 feet, Length = 4.6 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Waupee Creek. The stream is considered Class I brook trout water. Brown trout are also present. Wildlife values are limited due to the stream's small size. Public access is available from 3 road crossings and 8.4 miles of public frontage. The entire watershed is forested.

McDonald Creek, T30N, R19E, Section 25
Surface Acres = 6.4, Average Width = 7 feet, Length = 7.5 miles

A very hard water stream having slightly alkaline, clear water. This stream flows into Marinette County. The entire stream is considered Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available at 6 road crossings. Land use in the watershed is about equally divided between agriculture and forest production.

McPherson Creek, T33N, R17E, Section 1
Surface Acres 2.2, Length = 1.2 miles, Average Width = 15 feet

A hard water stream having slightly alkaline, light brown water. Tributary to the Peshtigo River. The known fish population consists of warm water species. Waterfowl and furbearers make limited use of this stream. The watershed is wooded or wild. The only public access is by navigating upstream from the Peshtigo River.

Messenger Creek, T30N, R19E, Section 36
Surface Acres = 8.3, Average Width = 12 feet, Length = 5.7 miles

A very hard water stream having slightly alkaline, clear water. This stream flows into Marinette County. Brook trout are the principal game fish present in this Class I and II trout stream. Wildlife values are limited due to the stream's small size. Public access is available at 4 road crossings. Agriculture and woodlands are the dominant land uses within the watershed.

Mosquito Creek, T33N, R15E, Section 18
Surface Acres = 2.6, Length = 3.1 miles, Average Width = 7 feet

A hard water stream having slightly alkaline, clear water. Tributary to Upper Wheeler Pond. The known fish species consist of forage type minnows. Some use by furbearers is probable, but the stream is too small for much use from waterfowl. The watershed is wooded or wild. Public access is available at six road crossings and from 3.7 miles of public frontage.

Mountain Creek, T31N, R15E, Section 12
Surface Acres = 0.1, Average Width = 5 feet, Length = 0.2 mile

A medium hard water stream having neutral, clear water. This stream flows from North Mountain Lake into South Mountain Lake. The fish population consists of forage species. Wildlife values are limited due to the stream's small size. Direct public access is available at one road crossing. The wilderness type access is also available as the entire stream is in public ownership. The watershed is forested.

Newton Creek, T28N, R18E, Section 22
Surface Acres = 0.7, Average Width = 11 feet, Length = 0.5 miles

A hard water stream having slightly alkaline, clear water. This stream flows through Newton Lake and terminates in Christie Brook. The fish population consists primarily of forage species. Wildlife values are limited due to the stream's small size. There is no public access. The watershed is all forest land.

North Branch of the Oconto River, T29N, R17E, Section 12
Surface Acres = 304.5, Average Width = 53 feet, Length = 47.4 miles

A hard water stream having slightly alkaline, light brown water. This river joins with the South Branch of the Oconto River near Suring to form the Oconto River. Chute Pond, a 417-acre impoundment, is located on this stream. The entire stream is classed as trout water, with the quality generally decreasing from north to south. Brook, brown and rainbow trout inhabit this stream, as well as several species of warmwater game fish and panfish. A variety of furbearers including muskrat, mink, beaver and otter make use of this stream. Puddle ducks occasionally use it as a nesting site and during their migrations. Public access is available at 16 road crossings and from 32.6 miles of public frontage. One private campground is located on the river. Land use in the watershed is devoted mostly to forest production with scattered areas of agriculture, particularly along the lower reaches of the river.

North Branch of the Pensaukee River, T27N, R19E, Section 36
Surface Acres = 13.5, Average Width = 13 feet, Length = 8.6 miles

A hard water stream having slightly alkaline, light brown water. Tributary to the Pensaukee River. The fish population consists primarily of forage species, although a few warmwater gamefish may be present. Wildlife values are limited due to the stream's small size. Public access is available at 3 road crossings and on 2.0 miles of public frontage. Land use within the watershed consists primarily of agriculture.

North Branch of the Peshtigo Brook, T31N, R18E, Section 11
Surface Acres = 6.2, Average Width = 27 feet, Length = 1.9 miles

A medium hard water stream having slightly acid, medium brown water. This stream joins the West Branch Peshtigo Brook to form Peshtigo Brook. Wildlife values are limited due to the stream's small size. The fish population consists primarily of forage species, with only a few warmwater game fish present. Public access of the wilderness type is available from 3.1 miles of public frontage. The watershed is forested.

North Fork of the Thunder River, T33N, R17E, Section 24
Surface Acres = 13.2, Average Width = 13 feet, Length = 8.4 miles

A hard water stream having slightly alkaline, clear water. This stream flows into Marinette County. The entire stream is Class I trout water, containing brook and brown trout. Wildlife values are limited although a few furbearers are present. Public access is available at 4 road crossings and from 15.8 miles of public frontage. The entire watershed is forested.

Oconto River, T29N, R22E, Section 16
Surface Acres = 567.8, Average Width = 106 feet, Length = 44.2 miles

A hard water river having slightly alkaline, light brown water. Oconto Falls Pond and the Machickanee Flowage are impoundments on this river. Tributary to Green Bay. Fish inhabiting this river include northern pike, walleye, largemouth bass, smallmouth bass, panfish, carp and trout. Brook, brown and rainbow trout are present in the upper portion of the river where it is considered Class III trout water. Seasonal runs of trout and coho salmon occur at the mouth. Furbearers including muskrat, mink, beaver and otter are present. Puddle ducks nest on the river and migratory waterfowl use the river as a loafing area. A rather heavy industrial pollution load enters the river at Oconto Falls. This seriously affects water quality from there to Green Bay. Public access is available at 12 road crossings and on 2.3 miles of public frontage. Three campgrounds are located on the river. Land

use within the watershed is about equally divided between agriculture and forest production. Stream discharge near Gillett for the period of record (1906-08, 1913-1973) averages 581 cubic feet per second. Maximum discharge is 8,400 cubic feet per second, a result of the Pulcifer dam failure, and the minimum 93 cubic feet per second.

Pat Creek, T31N, R16E, Section 8
Surface Acres = 0.7, Average Width = 7 feet, Length = 0.8 miles

A medium hard water stream having slightly acid, light brown water. Tributary to the First South Branch of the Oconto River. The fish population consists of native brook trout. Wildlife values are limited due to the stream's small size. Public access is available on 0.8 mile of public frontage. The entire watershed is forested.

Pecore Creek, T29N, R17E, Section 3
Surface Acres = 12.0, Average Width = 29 feet, Length = 3.3 miles

A hard water stream having slightly alkaline, light brown water. Tributary to the South Branch of the Oconto River. Brook and brown trout are present in this Class II trout stream. Wildlife values are limited due to the stream's small size. Public access is available at 2 road crossings. The primary land use in the watershed is agriculture.

Pensaukee River, T27N, R21E, Section 12
Surface Acres = 116.2, Average Width = 34 feet, Length = 28.2 miles

A hard water river having slightly alkaline, light brown water. Tributary to Green Bay. Little information is available regarding the fish population, but northern pike, panfish, carp and forage species are known to be present. Furbearers make light use of this stream and an occasional puddle duck may use it for nesting. Eleven road crossings provide public access. Agriculture is the primary land use within the watershed. Extreme flow variation occurs. The period of October 1972-September 1973 found a maximum discharge of 3,880 and a minimum of 5.3 cubic feet per second near Pensaukee. The average discharge was 153 cubic feet per second.

Peshtigo Brook, T29N, R17E, Section 12
Surface Acres = 55.5, Average Width = 22 feet, Length = 20.8 miles

A hard water stream having slightly alkaline, medium brown water. Tributary to the Oconto River. Furbearers make moderate use of this stream and puddle ducks commonly use it as a nesting site. The fish population consists primarily of forage species, although a few northern pike and panfish are probably present. Public access is available from 4 road crossings and on 23.2 miles of public frontage. The watershed is primarily forested land, including extensive wetland areas, except for the lower reaches which are in agriculture.

Pickerel Creek, T33N, R15E, Section 1
Surface Acres = 1.9, Average Width = 10 feet, Length = 1.6 miles

A hard water stream having slightly alkaline, clear water. Tributary to the North Branch of the Oconto River. The fish population consists primarily of forage species, although a few warmwater game fish are present. Wildlife values are limited due to the stream's small size. Public access is available from 1.7 miles of public frontage. Forest production is the primary land use within the watershed.

Second South Branch of the Oconto River, T31N, R15E, Section 34
Surface Acres = 33.3, Average Width = 21 feet, Length = 13.1 miles

A hard water stream having slightly alkaline, clear water. This stream originates in Cedar Lake (T32N, R15E) and is tributary to the Main South Branch of the Oconto River. This is an excellent trout stream, containing both brook and brown trout. The stream is considered trout water below its junction with Deadman Creek. Mink, muskrat and otter make use of this stream, but waterfowl use is light. Public access is available at 2 road crossings and on 17.4 miles of public frontage. Nearly all land in the watershed is forested.

Shadow Creek, T31N, R15E, Section 1
Surface Acres = 0.7, Average Width = 3 feet, Length = 2.0 miles

A hard water stream having slightly alkaline, light brown water. This stream originates in Shadow Lake and is tributary to the Second South Branch of the Oconto River. The stream is considered Class I brook trout water. Wildlife values are limited due to the stream's small size. Public access is available at 2 road crossings and on 3.4 miles of public frontage. The watershed is forested.

Shay Creek, T31N, R18E, Section 15
Surface Acres = 3.9, Average Width = 11 feet, Length = 2.9 miles

A hard water stream having slightly alkaline, clear water. Tributary to Peshtigo Brook. The fish population consists of forage species. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and on 5.2 miles of public frontage. The entire watershed is forested.

Smoke Creek, T33N, R15E, Section 11
Surface Acres = 0.7, Average Width = 20 feet, Length = 0.3 miles

A hard water stream having slightly alkaline, light brown water. This stream flows from Smoke Lake into Pickerel Creek. The creek is inhabited primarily by panfish. Wildlife values are limited due to the stream's small size. Navigable water public access is available from Pickerel Creek. The watershed consists of wooded and wild land.

Snowfalls Creek, T32N, R16E, Section 12
Surface Acres = 4.7, Average Width = 10 feet, Length = 3.9 miles

A hard water stream having slightly alkaline, clear water. Tributary to the North Branch of the Oconto River. The entire stream is Class I trout water, containing a native brook trout population. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing as is the wilderness type as the entire stream which is in U.S. Forest Service ownership. The entire watershed is forested.

South Branch Beaver Creek, T30N, R19E, Section 12
Surface Acres = 4.4, Average Width = 8 feet, Length = 4.5 miles

A very hard water stream having slightly alkaline, clear water. This stream flows into Marinette County. The stream is Class I trout water, supporting a native brook and brown trout populations. Wildlife values are limited due to the stream's small size. Public access is available at 7 road crossings. Agriculture is the dominant land use within the watershed.

South Branch of the Oconto River, T29N, R17E, Section 12
Surface Acres = 72.7, Average Width = 40 feet, Length = 15.0 miles

A hard water stream having slightly alkaline, clear water. This stream joins the North Branch of the Oconto River near Suring to form the Oconto River. The entire length of this Class I stream is trout water, containing brook and brown trout. Furbearers and waterfowl make light use of this stream. Public access is available from 5 road crossings and from 19.0 miles of public frontage. The DNR maintains a land acquisition program on this stream. Land use within the watershed is primarily in forest production with limited agricultural activity.

South Fork of the Thunder River, T33N, R17E, Section 36
Surface Acres = 2.7, Average Width = 20 feet, Length = 1.1 miles

A hard water stream having slightly alkaline, clear water. This stream flows into Marinette County. Brook and brown trout inhabit this Class I trout stream. Due to its small size, wildlife values are limited. Wilderness type public access is available to the entire stream from U.S. Forest Service land. The entire watershed is forested.

Splinter Creek, T28N, R20E, Section 34
Surface Acres = 1.4, Average Width = 9 feet, Length = 2.8 miles

A hard water stream having slightly acid, clear water. Tributary to Machickanee Flowage. Brook trout are found in the lower 0.8 miles with the remainder of the stream containing primarily forage fish. Wildlife values are limited due to the small size of the stream. Public frontage is available from 2.2 miles of public frontage and a road crossing near the mouth of the stream.

Spring Creek, T30N, R19E, Section 35
Surface Acres = 0.9, Average Width = 3 feet, Length = 2.4 miles

A very hard water stream having slightly alkaline, clear water. Tributary to Messenger Creek, a trout stream. Forage fish dominate the creek although trout are present at times. Wildlife values are limited due to the stream's small size. Public access is available at 4 road crossings. Agriculture is the primary land use within the watershed.

Spring Creek, T33N, R15E, Section 2
Surface Acres = 0.7, Average Width = 30 feet, Length = 0.2 mile

A hard water stream having slightly alkaline, clear water. This stream flows from Spring Lake to Pickerel Creek. The stream is inhabited by panfish and forage species. Wildlife values are limited due to the stream's small size. Wilderness type public access is available to the entire stream from U. S. Forest Service land. The entire watershed is forested.

Spring Creek, T33N, R17E, Section 6
Surface Acres = 0.3, Average Width = 5 feet, Length = 0.5 mile

A hard water stream having slightly alkaline, clear water. Tributary to East Thunder Creek. The Class I trout stream has a native brook trout population. Wildlife values are limited due to the stream's small size. Public access of the wilderness type is available to the entire stream from U. S. Forest Service land. The entire watershed is forested.

Temple Creek, T31N, R16E, Section 17
Surface Acres = 1.0, Average Width = 6 feet, Length = 1.4 miles

A hard water stream having slightly alkaline, light brown water. This stream flows from Temple Lake to the First South Branch of the Oconto River. Trout are reported to inhabit this stream. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and on 2.7 miles of public frontage. Land use within the watershed is devoted to forest production.

Thomas Slough, T29N, R22E, Section 27
Surface Acres = 6.1, Average Width = 25 feet, Length = 2.0 miles

A hard water stream having slightly alkaline, light brown water. Tributary to Green Bay. The fish population consists primarily of forage species, although spawning northern pike from Green Bay run the stream in the spring. Furbearers, especially muskrat, make use of this stream. Puddle ducks occasionally nest near the mouth. Public access is available at one road crossing and on 1.7 miles of public frontage. The entire watershed is forested, consisting primarily of wetlands.

Town Creek, T31N, R16E, Section 14
Surface Acres = 1.1, Average Width = 5 feet, Length = 1.8 miles

A hard water stream having slightly alkaline, clear water. Tributary to the North Branch of the Oconto River. Brook trout inhabit this Class I stream. A portion of the stream near the Village of Mountain is restricted to a children's fishing area. Wildlife values are limited due to the stream's small size. Public access is available at six road crossings and on 0.6 mile of public frontage. The primary land use in the watershed is forest production, although the Village of Mountain adds a residential area.

Wapato Creek, T33N, R15E, Section 33
Surface Acres = 1.0, Average Width = 4 feet, Length = 2.0 miles

A medium hard water stream having slightly alkaline, clear water. Tributary to McCaslin Brook. The fish population consists of forage species. Wildlife values are limited due to the stream's small size. Public access is available at one road crossing and from 0.7 mile of public frontage. The entire watershed is forested.

Waupee Creek, T31N, R17E, Section 30
Surface Acres = 35.2, Average Width = 24 feet, Length = 12.1 miles

A hard water stream having neutral, light brown water. Tributary to the North Branch of the Oconto River. This stream, which contains brook and brown trout, is considered Class I, II and III trout water in various sections. A few furbearers use this stream, but waterfowl use is very limited. Public access is available at 8 road crossings and on 18.1 miles of public frontage. The entire watershed is forested.

Weso Creek, T31N, R17E, Section 31
Surface Acres = 10.5, Average Width = 16 feet, Length = 5.4 miles

A medium hard water stream having slightly acid, medium brown water. Tributary to the North Branch of the Oconto River. Forage species comprise most of the fish population, but a few warmwater game fish are probably present. Furbearers and waterfowl make moderate use of this stream, especially in a managed marsh area located near the boundary with Menominee County. Public access is available at 4 road crossings and on 7.5 miles of public frontage. Most of the watershed is wooded.

West Branch of Peshtigo Brook, T31N, R18E, Section 11
Surface Acres = 3.9, Average Width = 20 feet, Length = 1.6 miles

A medium hard water stream having slightly acid, light brown water. This stream joins the North Branch of Peshtigo Brook to form Peshtigo Brook. Forage fish are present. The stream receives light use by furbearers and puddle ducks. Public access of the wilderness type is available to the entire stream. The watershed is entirely forested, and contains extensive wetlands.

West Thunder Creek, T33N, R17E, Section 6
Surface Acres = 0.6, Average Width = 4 feet, Length = 1.3 miles

A medium hard water stream having slightly alkaline, clear water. This stream joins East Thunder Creek to form the North Fork of the Thunder River. A Class I brook trout fishery is present. Wildlife values are limited due to the stream's small size. Public access is available at two road crossings and from 1.0 mile of public frontage. The entire watershed is forested.

Winslow Creek, T32N, R16E, Section 8
Surface Acres = 0.1, Average Width = 8 feet, Length = 0.1 mile

A hard water stream having slightly alkaline, clear water. Tributary to the First South Branch of the Oconto River. The fish population consists primarily of forage species. Wildlife values are limited due to the small size of the stream. Public access of the wilderness type is available from U. S. Forest Service land. The watershed is forested.

Wiscobee Creek, T29N, R17E, Section 9
Surface Acres = 0.6, Average Width = 4 feet, Length = 1.2 miles

A hard water stream having slightly alkaline, light brown water. This stream flows through Wiscobee Lake and is tributary to Pecore Creek. Trout are present in this stream above Wiscobee Lake. Wildlife values are limited due to the stream's small size. Public access is available at two road crossings. Land use is divided between agriculture and forest production.

Outlying Waters

The part of Green Bay associated with Oconto County has approximately 90 square miles of water and a maximum depth of 50 feet. There are 29 miles of shoreline with 4.8 miles in public ownership. These waters provide excellent recreational opportunities, as well as allowing great lakes shipping to reach the area. The commercial fishery catch consists primarily of alewife, whitefish, yellow perch, burbot, walleye, smelt and sucker. An excellent sport fishery is present, dominated by brown trout, rainbow trout, coho salmon and chinook salmon. At certain times of the year, perch, smallmouth bass, walleye and northern pike fishing is excellent. A lake trout fishery is also developing, but due to the specialized gear required to fish this species they are unavailable to most sport fishermen.

North Bay Shore recreation area with 33 camp sites and a developed boat landing is located near the Marinette County line and is maintained by Oconto County. D. E. Hall county park also provides a developed boat landing.

Two areas of state land designated as wildlife areas are located on the bay and provide nesting and feeding areas for waterfowl as well as habitat for many other species of wildlife.

Both seasonal and permanent dwellings are present along the bay, but due to the low nature of the shoreline, development is scattered.

ANALYSIS OF INVENTORY DATA

The following comments and tables are a result of the compilation of data obtained from the general waters information forms prepared for the waters of Oconto County. The forms were completed as part of the waters inventory phase of the lake and stream classification program.

To illustrate the location, significance and public use opportunities of these lakes and streams, four county maps were prepared. The maps show fishery resources (Fig. 9), degree of public access (Fig. 10), public land ownership (Fig. 11), and water fertility (Fig. 8).

In order to provide a summary of data for each body of water, two appendices are included, one for lakes and one for streams. These appendices contain some of the specific information gathered in the inventory.

Quantitative Aspects

The area of surface water in Oconto County is 12,709.5 acres. Of this total, 10,969.5 acres are found in 379 lakes and impoundments and 1,740.0 acres in 191 streams. Stream length in the county is 556.6 miles, of which 316.1 miles are classed as trout stream (Table 4). Stream frontage (both sides) amounts to 1,113 miles, while lake frontage amounts to 301.5 miles. A comparison between available water area of lakes and streams in relation to frontage finds 3,377 feet of stream frontage and 145 feet of lake frontage per acre of water respectively.

Three hundred sixty-eight natural lakes account for 82 percent and 11 impoundments 18 percent of the total lake surface area. Size classes and acreage of natural lakes and impoundments are noted in Table 3. Lakes under 10 acres represent 63 percent of the total number, but only 7 percent of the acreage. Only 24 lakes (6 percent) are 100 acres or larger, however, they comprise 60 percent of the lake acreage.

In Oconto County, 39 percent of the lakes are under 8 feet in depth, however, they include only 6 percent of the lake acreage. Natural lake depths range from less than one foot in spring ponds to a maximum depth of 65 feet in Little Archibald Lake. White Potato is the largest lake with 978 acres, and the Oconto River the largest stream with 567.8 acres. Tables 5 and 6 provide additional data on the number of lakes in various size classes, their acreage and miles of shoreline.

Table 3. Number, area, miles of shoreline and miles of public shoreline on lakes of various size classes.

Size Class (Acres)	No. Lakes	Area (Acres)	Miles of Shoreline	No. of Lakes with Public Frontage	Miles of Public Frontage
0-9	241	754.6	70.82	134	29.51
10-19	46	689.5	31.46	25	7.87
20-29	24	585.7	22.70	11	2.80
30-39	19	659.2	21.43	10	3.16
40-49	9	424.8	13.89	8	1.95
50-99	16	1,095.3	31.25	10	3.23
100-199	10	1,400.6	26.03	10	1.52
200-499	13	4,381.8	77.52	13	5.56
500-999	0	978.0	6.40	0	1.24
1000+	0	0	0	0	0
TOTAL	379	10,969.5	301.50	222	56.84

Table 4. Number, area, length, miles of public frontage, and miles of trout water on streams of various width classes.

Average Width Class (Feet)	No. Streams	Area (Acres)	Length (Miles)	Public Frontage No. Streams	Public Frontage Miles of Frontage	Trout Water No. Streams	Trout Water Length (Miles)
Less than 10'	142	142.1	198.7	95	183.0	90	124.6
10' - 19'	21	136.3	89.3	14	103.7	10	57.8
20' - 39'	23	510.1	160.8	13	86.9	6	48.0
40' or more	5	951.5	107.8	5	54.8	4	85.7
TOTAL	191	1,740.0	556.6	127	428.4	110	316.1

Table 5. Number, area and shoreline length of lakes in various depth and size classes.

Size Class (Acres)	Lakes Less than 8' Deep			Lakes 8' or Deeper		
	Number	Surface Acreage	Miles Shoreline	Number	Surface Acreage	Miles Shoreline
<10	135	301.1	35.07	106	453.5	35.75
10-19	6	96.8	3.83	40	592.7	27.63
20-29	2	53.3	1.82	22	532.4	20.88
30-39	2	67.9	2.07	17	591.3	19.36
40-49	0	-	-	9	424.8	13.89
50-99	3	135.0	3.41	13	960.3	27.89
100-199	0	-	-	10	1,400.6	26.03
200-499	0	-	-	13	4,381.8	77.52
500-999	0	-	-	1	978.0	6.40
1000+	0	-	-	0	-	-
Total	148	654.1	46.20	231	10,315.4	255.30

Lake Types

Lakes have been placed into four basic classifications: seepage, drained, drainage and spring. The glossary provides definitions and qualifications for these lake types.

Seepage lakes are the most common type in Oconto County. There are 206 seepage lakes ranging from very soft to very hard waters. Very soft and soft water classifications comprise 48 percent of the seepage lakes. Hard water seepage lakes are usually associated with limestone deposits left by the glaciers or from polluted conditions. Seepage lakes exhibited total alkalinity values as low as 1 ppm to as high as 412 ppm. Their conductivity values varied from 16 to 807 micromhos. Water color varied from clear to dark brown, with light brown water predominant. The chloride values in nearly all seepage lakes ranged from 1 ppm to 4 ppm. The shoreline development factor (S.D.F.) ranged from 1.02 to 3.23. Most seepage lakes have S.D.F. values of less than 1.50.

Drained lakes are the least common type with 19 in Oconto County. Their total alkalinity ranged from 37 to 194 ppm. Hard water drained lakes are dominant with 58 percent in this classification. Conductivity ranged from 112 to 395 micromhos. The pH varied from 6.2 to 8.2 and averaged 7.2. Water color varies from clear to light brown with medium brown water most common. Chloride levels are low, usually 1 to 4 ppm. The shoreline development factor ranged from 1.09 to 2.52.

Drainage lakes with 82 in Oconto County, range from soft to very hard water. Nearly all (97 percent) are in the medium hard or hard water classification. Fertility or hardness levels are relatively high in drainage lakes. This is attributed to greater exposure to minerals in the surface and subsoils as a result of larger watersheds than the other lake types. Total alkalinity ranged from 33 to 212 ppm with a mean of 119 ppm. Conductivity readings were from 90 to 489 micromhos, with an average of 257 micromhos. The pH values ranged from 6.4 to 9.1 with a mean of 7.4. Chlorides are low, with nearly all lakes under 5 ppm. The shoreline development factor ranged from 1.02 to 4.27. Impoundments in general, have the highest S.D.F. values due to more shoreline in relation to water area than natural drainage lakes.

The 74 spring lakes including spring ponds, in Oconto County are all in the medium hard or hard water classification. Soft water spring lakes are unusual. Total alkalinity ranged from 58 to 165 ppm with a mean of 118 ppm. Hard water spring lakes are the most common with 91 percent in this category. The pH is predominantly slightly alkaline, with 89 percent in the 7.0-7.9 range. Conductivity values ranged from 142 to 469 micromhos with an average of 251 micromhos. Water color varied from clear to light brown with 74 percent being clear. Chlorides are low in spring lakes, with the majority in the range of 1 to 4 ppm. The shoreline development factor varied from 1.04 to 3.45.

Water Quality

Information gathered to provide interpretation of water quality consisted of water color, transparency, pH, total alkalinity and specific conductance. These criteria are influenced by soils, bedrock, leaching from wetlands, human activities, and other factors. Chemical, physical and biological properties can provide information to assess the biotic and recreational potential of surface waters.

The criteria used as an indicator of fertility or biological productivity is total alkalinity, which is determined by the methyl purple alkalinity test M.P.A. Potential biological production is usually correlated with this test, with higher M.P.A. values suggesting higher production. Tables 7 and 8 summarize and Figure 8 illustrates the fertility of lakes and streams of Oconto County.

Table 6. Acreage and number of lakes for various depth and size categories.*

Maximum Depth (Feet)	Acreage Class										Total			
	<10	10-19	20-29	30-39	40-49	50-99	100-199	200-499	500-999	1000+	No.	Percent	Acreage	Percent
<5	151.1(83)	19.7(1)	-	34.3(1)	-	-	-	-	-	-	85	22.3	205.1	1.9
5-9	213.4(70)	129.2(9)	80.9(3)	33.6(1)	-	215.0(3)	-	-	-	-	86	22.6	672.1	6.2
10-14	140.6(36)	115.6(9)	24.3(1)	104.9(3)	49.6(1)	53.8(1)	272.4(2)	1158.0(3)	978(1)	-	57	15.0	2,897.2	26.4
15-19	78.6(18)	109.2(7)	142.9(6)	134.8(4)	-	77.5(1)	126.5(1)	417.0(1)	-	-	38	10.0	1,086.5	10.0
20-24	106.8(22)	71.4(5)	47.7(2)	105.3(3)	140.3(3)	160.2(2)	136.5(1)	434.9(1)	-	-	39	10.3	1,203.1	11.0
25-29	28.9(6)	62.8(4)	100.0(4)	173.4(5)	46.3(1)	141.4(2)	269.7(2)	504.0(2)	-	-	26	6.9	1,326.5	12.1
30-34	9.5(2)	95.4(5)	139.9(6)	-	-	127.5(2)	-	-	-	-	15	3.9	372.3	3.8
35-39	12.6(2)	28.4(2)	27.6(1)	-	93.0(2)	66.2(1)	143.3(1)	293.0(1)	-	-	10	2.6	664.1	3.4
40-44	-	14.7(1)	-	-	46.1(1)	52.0(1)	303.4(2)	624.0(2)	-	-	7	1.8	1,040.2	9.5
45-49	5.3(1)	15.3(1)	-	72.9(2)	49.5(1)	-	-	-	-	-	5	1.3	143.0	1.3
50-54	7.8(1)	12.9(1)	22.4(1)	-	-	81.4(1)	148.8(1)	231.0(1)	-	-	6	1.6	504.3	4.6
55-59	-	-	-	-	-	-	-	429.9(1)	-	-	1	.3	429.9	4.0
60-64	-	14.9(1)	-	-	-	64.5(1)	-	290.0(1)	-	-	3	.8	369.4	3.4
65-69	-	-	-	-	-	55.8(1)	-	-	-	-	1	.3	55.8	.5
Total											379		10,969.5	

*Figure in parenthesis represents the number of lakes per depth and size class, whereas the other number represents the acreage of water.

Specific conductance, which is expressed in terms of electrical conductance or micromhos at 77° F., measures the total amount of ionized materials or electrolytes in water. Tables 8 and 9 summarize the conductivity data for lakes and streams. This is also an indicator of fertility, with higher values implying higher biological production.

The chloride measurement is used as an indicator of pollution. In the region of Oconto County, chlorides are usually low, with values of 1 to 4 ppm the most common. Chloride levels over 10 ppm are considered high, and may indicate pollution, although correlation with other factors is usually required to establish the presence of pollution. Local natural phenomena also influence chloride values, because on occasion spring water emanating directly from the ground, with little chance of being polluted, has had chloride values in excess of 10 ppm.

The pH measurement reveals if water is acid or alkaline. A pH of 7.0 is neutral with lower values being acid and higher values alkaline. The normal range of pH usually lies between 6.5 and 8.5. Extremes or rapid pH changes may have an adverse effect on the fish population or biotic community. Landlocked bog lakes tend to have the lowest and spring ponds the highest pH values. Tables 8 and 10 provide data on the pH of Oconto County lakes and streams.

Water color of Oconto County lakes and streams varies from clear to dark brown. Half of the lake acreage is clear and half is brown water. Light brown water is prevalent in 84 percent of the stream acreage. Brown water, dependent on its intensity, tends to limit light penetration, thus reducing the zone in which plants can live and affecting biological productivity. Table 11 summarizes water color characteristics of lakes and streams.

The transparency of water, measured by a secchi disk, is an indicator of its ability to transmit light. Water color, turbidity, algae, etc., lower transparency. When transparency is impaired, the development of rooted aquatic plants and the zone in which plant production occurs is reduced.

Using Moyle's productivity classification for fish and plant life, it was found that 18 percent of Oconto County lakes, comprising 5 percent of the lake acreage, have very soft water and low biological productivity. Nearly 9 percent, with 5 percent of the lake acreage, have soft water and low to medium biological productivity. Twenty-three percent, encompassing 41 percent of the lake acreage, have medium hard water and medium to high biological productivity. Forty-nine percent of the lakes, involving 49 percent of the lake acreage, have hard water and high biological productivity. Two percent, affecting less than 1 percent of the lake acreage, have very hard water and high biological productivity. Most streams have hard or very hard water with 92 percent of the total mileage and 97 percent of the acreage possessing a high biological productivity index.

The above measurements of water quality and their relationship to biological productivity require integration with other factors. Depth, temperature, oxygen, nutrients, bottom types, cover, food supply, species composition, competition, etc., are variables that also must be considered. Biological productivity in the aquatic environment involves a complex alignment of physical, chemical and biological properties. The measurement of a single variable, such as total alkalinity, provides a preliminary baseline from which to project biotic potential.

Data on detailed chemical analysis of selected lakes to determine the relative quantities of dissolved nutrients is provided in Table 12.

Table 7. Methyl purple alkalinity (M.P.A.) of lakes of different types and water area of each class.

M.P.A.		Seepage		Drained		Drainage		Spring	
(ppm)	Acres	No.	Percent	No.	Percent	No.	Percent	No.	Percent
0-20 (very soft)	538.0	67	32.5	0		0		0	
21-40 (soft)	538.4	31	15.1	1	5.3	1	1.2	0	
41-90 (Med. hard)	4,465.6	59	28.6	7	36.8	13	15.9	7	9.7
91-199 (hard)	5,401.7	43	20.9	11	57.9	67	81.7	65	90.3
200+ (very hard)	25.8	6	2.9	0		1	1.2	0	
No. Sampled		206		19		82		72	
M.P.A. Range (ppm)		1-412		37-194		33-212		58-165	
Mean M.P.A. (ppm)		61		97		119		118	

Table 8. Methyl purple alkalinity (M.P.A.), conductivity and pH of Oconto County streams of various width classes.

Avg. Width (feet)	M.P.A. (ppm) Range	Mean	No. Sampled	Conductivity (Micromhos 77°F) Range	Mean	No. Sampled	pH Range	Mean	No. Sampled
Less than 10'	47-260	142	130	111-615	301	130	6.2-8.3	7.3	130
10'-19'	59-224	123	25	133-451	268	25	6.7-7.8	7.3	25
20'-39'	44-236	130	20	133-693	299	20	6.3-8.1	7.3	20
40' or more	106-125	114	5	222-300	258	5	7.1-7.5	7.3	5

Table 9. Conductivity of Oconto County lakes of different types.

Conductivity (mmhos at 77°F)	Seepage No.	Percent	Drained No.	Percent	Drainage No.	Percent	Spring No.	Percent
0-19	2	1.0						
20-39	41	19.9						
40-59	18	8.7						
60-79	16	7.8						
80-99	13	6.3			1	1.2		
100-149	32	15.5	5	26.3	4	4.9	2	2.7
150-199	29	14.1	3	15.7	11	13.5	6	8.1
200-249	18	8.7	4	21.1	16	19.5	25	35.1
250-299	17	8.3	5	26.3	37	45.1	30	41.9
300-349	6	2.9	1	5.3	5	6.1	8	10.8
350-399	3	1.5	1	5.3	4	4.9		
400-449	5	2.4			2	2.4		
450-499	1	.5			2	2.4	1	1.4
500-999	5	2.4						
1000+								
No. of Samples	206	19	19		82		72	
Range	16-807		112-395		90-489		142-469	
Mean	148		216		257		251	

Table 10. The pH of Oconto County lakes of different types.

pH	Seepage No.	Percent	Drained No.	Percent	Drainage No.	Percent	Spring No.	Percent
4.0-4.4	1	.5	-	-	-	-	-	-
4.5-4.9	-	-	-	-	-	-	-	-
5.0-5.4	5	2.4	-	-	-	-	-	-
5.5-5.9	21	10.2	-	-	-	-	-	-
6.0-6.4	47	22.8	3	15.8	1	1.2	-	-
6.5-6.9	50	24.3	2	10.5	6	7.3	4	5.4
7.0-7.4	65	31.6	7	36.9	42	51.2	41	58.1
7.5-7.9	11	5.3	5	26.3	27	33.0	23	31.1
8.0-8.4	6	2.9	2	10.5	5	6.1	2	2.7
8.5-8.9	-	-	-	-	-	-	2	2.7
9.0-9.5	-	-	-	-	1	1.2	-	-
No. Sampled	206		19		82		72	
pH Range	4.2-8.2		6.2-8.2		6.4-9.1		6.6-8.6	
Mean pH	6.7		7.2		7.4		7.4	

Table 11. Number of lakes and streams and the acreage of water per color class.

Type of Water	Water Color			
	Clear	Light Brown	Medium Brown	Dark Brown
Lakes				
Seepage	54	103	36	13
Drainage	47	28	6	1
Drained	4	5	9	1
Spring	53	19	0	0
Total No.	158	155	51	15
Total Acres	5,520.7	4,406.7	1,000.5	41.6
Streams				
Total No.	84	78	17	1
Total Acres	277.9	1,311.8	89.4	0.1

Table 12. Detailed chemical analysis of selected Oconto County lakes*

Lake	Conductance	pH	Total Alkalinity	Calcium	Magnesium	Sodium	Potassium	Total Iron	K-Nitrogen	Ammonia Nitrogen	Nitrite Nitrogen	Total Phosphate	Dissolved Phosphate	Chlorides	Sulphates	Data Sampled
Archibald	216	7.7	106	27.4	10.0	1.5	1.0	-	0.36	0.01	0.17	-	0.02	0.9	5.0	
Bass (T32N, R15E)	216	7.2	81	21.5	9.1	1.2	0.6	-	0.32	0.20	0.25	-	0.01	0.4	5.0	
Berry	165	7.6	83	20.6	9.5	1.1	1.4	0.05	0.68	0.18	0.05	0.14	0.04	1.8	2.5	
Boot	161	7.5	81	17.9	7.6	1.3	0.7	-	0.35	0.03	0.07	-	0.01	0.2	4.0	
Christy	184	7.8	93	28.0	8.4	1.2	2.0	0.07	0.68	0.28	0.05	0.03	0.03	2.1	12.5	
Crooked	130	7.8	58	16.2	6.5	1.0	0.5	0.18	0.42	0.18	0.03	0.05	0.05	1.8	2.5	
Star	157	7.4	71	17.5	7.3	1.0	1.0	-	0.45	0.27	0.23	-	0.01	0.2	6.0	

*Measurements in parts per million (ppm) except specific conductance (mmhos at 77°F) and pH.

Fishery Resource

Oconto County has a diversified fishery as illustrated in Figure 9. Table 13 provides information on known numbers of lakes and streams containing various species of fish, with trout, panfish and forage species grouped collectively. The lake and stream narratives also provide information on fish populations.

The northern portion of the county has many excellent trout streams which are inhabited primarily by brook and brown trout. The following stream systems are the more popular trout water: North Branch of the Oconto River, South Branch of the Oconto River, First South Branch of the Oconto River, Second South Branch of the Oconto River, McCaslin Brook, Waupee Creek, and North Fork of the Thunder River. Many tributaries to these streams and other cold water creeks have good trout populations, but fishability is often restricted by narrowness and brushy banks. Several lakes also contain trout, of which the following have good populations: Upper Jones Spring, Lower Jones Spring, White Lake and Deadman Lake. In addition to these waters numerous spring ponds also contain trout.

Walleye is a popular warm water species with abundant populations in Archibald, Maiden, Finnegan and White Potato Lakes. Fifteen other lakes in the county are also known to contain walleye.

Muskellunge are found in eleven lakes in Oconto County, of which Bear, Chute Pond and Munger are considered Class A waters.

Northern pike, largemouth bass, smallmouth bass, and panfish are common in lakes and rivers throughout the county, and collectively provide a major portion of the county's fishery. This fishery varies in quality, but in general, good fishing can be expected in most lakes containing these species.

Minnows are found in many small, shallow lakes which are not suitable for game fish. The most practical use of these fish is live trapping for sale as bait.

Carp are found in Machickanee Flowage, Brooks Lake and Spice Lake. Green Bay and its tributaries upstream to the first impoundment or natural barrier also have carp populations.

Green Bay offers a diversified sport fishery highlighted by chinook and coho salmon. Brown, rainbow, and lake trout also are common in the sport catch. Occasionally good catches of northern pike, walleye, smallmouth bass, and yellow perch are reported.

There were 6,668 resident and 2,329 nonresident fishing licenses sold in the county during 1975. There were 21 private fish hatcheries licensed in 1973.

Green Bay supports a commercial fishery that operates out of 3 ports in Oconto County: Oconto, Little Suamico, and Pensaukee. The primary species sought are yellow perch, whitefish, white sucker and alewife. Other species taken on a limited basis are northern pike, walleye, bullhead, burbot, smelt, and lake herring. The most common types of gear used are trawls, pound nets, gill nets, fyke nets, and drop nets. Most rough fish are used to make fish meal and animal food. Some game fish are sold for human consumption.

Table 13. Known occurence of various fish species or groups in Oconto County lakes and streams.

	Lakes		Streams		
Species	Number	Acreage	Number	Miles*	Acreage*
Muskellunge	11	2,428.9	0	-	-
Northern Pike	78	4,804.7	6	152.5	888.1
Walleye	19	3,373.1	1	44.2	567.8
Largemouth Bass	138	8,667.4	1	44.2	567.8
Smallmouth Bass	6	2,212.6	1	44.2	567.8
Panfish	170	9,056.0	63	120.6	778.0
Trout	33	179.9	108	316.1	1,020.5
Carp	6	634.8	2	42.2	334.2
Forage (only)	32	748.8	64	103.8	124.7

*Only that portion known to be inhabited by species.

Wetland Resources

A wetland inventory and classification is not available for Oconto County. The wetlands shown on the United States Geological Survey Quadrangles amount to approximately 105,800 acres. These wetlands comprise 16 percent of the land area of Oconto County. There are about 47,620 acres of wetlands adjoining streams and 7,798 acres adjoining lakes. Forested and/or wooded wetlands occupy most of the wetland acreage. Data is not available that delineates the exact acreage of forested wetlands.

Certain wetlands, particularly the marsh and/or meadow type, are important as spawning sites for fish, especially northern pike. These wetlands also provide nesting sites for waterfowl, primarily blue-winged teal, mallard, wood duck, and black duck. Ring-neck and coot also nest in the county. There averages 3.9 acres of important waterfowl breeding habitat per square mile in the county (Jahn and Hunt, 1964). This data reveals that there are 3,955 acres of shallow and deep marshes that are valuable waterfowl habitat. In addition furbearers, frogs, turtles, birds, and other aquatic animals are inhabitants of these wetland ecosystems.

Boating

There are 12 lakes over 200 acres in Oconto County considered large enough for fast boating activities. Lakes over 200 acres are: Archibald, Boot, Boulder, Christie, Chute Pond, Kelly, Lower Wheeler Pond, Machickanee Flowage, Maiden, Reservoir Pond, Wheeler and White Potato. Only 7 of these lakes: Archibald, Boot, Boulder, Kelly, Maiden, Wheeler and White Potato provide good water skiing. The others have stump fields and shallow areas which make water skiing and fast boating hazardous. The 12 lakes over 200 acres contain 4,972.8 acres or 46 percent of the county's total lake acreage. Green Bay offers exceptional boating opportunities, although seaworthy craft must be used in the event of rough water.

There were 2,505 boats registered in Oconto County during 1975. Aerial observation of boating activity suggests that fishing is the primary boating use.

The Oconto River and portions of its North and South branches are large enough for good canoeing. Several other streams may be suitable for canoeing during periods of high water.

Campgrounds

There are three public parks with camping facilities located on lakes, three on rivers and one on Green Bay. The U. S. Forest Service maintains a 36-unit campground on Boot Lake and a 53-unit campground on Boulder Lake. Oconto County provides a 100-unit campground on Chute Pond. The U. S. Forest Service maintains a 31-unit campground on the North Branch of the Oconto River. The City of Oconto operates a 25-unit campground and the Village of Suring, 5 units, on the Oconto River. A 33-unit campground is also maintained by Oconto County on Green Bay. Private campgrounds are located on the following waters: Boulder Lake (100-units), Chute Pond (10-units and 28-units), Green Bay (8-units and 15-units), Oconto River (32-units and 5-units), Berry Lake (30-units), Mary Lake (45-units) and Unnamed Lake 17-10 (T31N, R18E) a 24-unit campground. Several other public campgrounds are located in the county, but they are not on water.

Swimming

Most larger lakes in Oconto County have desireable areas for swimming. The following lakes offer public beaches which are considered good for swimming: Bass (T32N, R15E), Boulder, Chute Pond, Oconto Falls Pond, and White Potato. Many other lakes have public swimming areas which are not as desireable. Much of the developed shoreline offers good swimming opportunities, but is private.

Aesthetics

Northern Oconto County's rolling landscape, combined with occasional ridges and rock outcrops, provides scenic, heavily wooded topography dotted with lakes and laced with streams. Many of the scenic areas in this part of the county are on public land, and hopefully will be preserved with little change. The southern part of the county tends to be level, with agriculture becoming more intensive. In this gently rolling countryside, scenic qualities are confined mostly to fields and wood lots. Green Bay and its shoreline are distinctive features in the county that encompass unique features.

AVAILABILITY OF THE WATER RESOURCE

Area and Population

The 1970 census revealed that Oconto County had a population of 25,553, or 25.4 people per square mile. Although nearly three-fourths of the population is rural, it exhibited a decline of 9.5 percent during the 1960's.

The county's area, including surface waters, is 1,014 square miles or 1.8 percent of the state area. Excluding the outlying waters of Green Bay, the county has 1.9 percent of the state's surface water acreage. Inland lakes and impoundments comprise 86.6 percent and streams 13.4 percent of the water area in the county. In the county, there is 0.49 acres of water per capita with 0.42 acre in lakes and 0.07 in streams. The per capita index of water frontage finds 63 feet on lakes and 222 feet on streams.

Public Access to Water

The availability and types of public access found on Oconto County lakes is illustrated in Figure 10. Table 15 provides information on the number of lakes having public access of various types and the acreage of water available. Public lands (Fig. 11) provide for access to many streams in the northern part of the county, including most of the trout streams. Road crossings also provide direct access to streams.

Public access is satisfactory on most large lakes, but many lakes under 30 acres remain entirely private. Public access to small lakes should be of the walk-in type to minimize the potential impact of increased use. Green Bay has public access with boat landings at 2 county parks and in the City of Oconto. Several other parcels of undeveloped public land also provide for access to the bay.

Conditional public access is also available to some waters from private forest cropland (Table 14). This is usually of the wilderness type. This circumstance prevails only for the duration of the contractual agreement and therefore is not in perpetuity.

Public Lands and Frontage

About 29 percent of the land area is in public ownership, exclusive of road right-of-way which occupies 2.0 percent. Public ownership data are provided in Tables 3, 4 and 14, with major ownership blocks illustrated in Figure 11. In addition to public-owned lands, there are 4,596 acres of private land entered under the forest crop law, which comprises 0.7 percent of the county's land area. Land entered under the forest crop law is open to public use, however, roads within these areas can be gated.

There are 222 lakes in Oconto County having public frontage. Of the 304.55 miles of lake shore, 56.84 miles (18.7 percent) are in public ownership. Approximately 86 percent of the public frontage is on lakes under 10 acres, leaving little public frontage on large lakes. Lakes under 100 acres have 24.8 percent of their shoreline in public ownership. On lakes 100 acres and larger 7.4 percent of the frontage is publicly owned. Lakes less than 10 acres have the highest degree of public frontage with nearly 42 percent in government ownership.

There is public frontage on 117 of the 180 streams. Stream frontage amounts to 1,073 miles with 399.4 miles (37.2 percent) publicly owned. Those streams with an average width of less than 20 feet have 48.5 percent of their stream banks in public ownership. Streams averaging 20 feet or wider have 23.0 percent of their frontage in public land control. Most of the county's major trout streams have some frontage in public ownership.

Table 14. Public and private forest crop lands in Oconto County.

Ownership	Acres
Nicolet National Forest	138,227.53
State of Wisconsin	3,690.51
Oconto County	43,678.76
Township	419.53
City and Village	362.56
Private Forest Crop Land	4,596.49
Total	190,975.38

Table 15. Public access types and available water area on Oconto County lakes.*

Type of Public Access	Lakes		Available Water Acreage	
	No.	Percent	Acreage	Percent
With parking	31	8.1	4,628.4	42.2
Without parking	23	6.1	2,033.2	18.6
Unimproved or difficult	46	12.2	1,520.9	13.9
Navigable water	29	7.7	794.0	7.2
Wilderness	115	30.3	641.1	5.9
Total with public access	244	64.4	9,617.6	87.7
Total without public access	135	35.6	1,351.9	12.3

*Some lakes have more than one type of access. This table summarizes the type considered to be most convenient.

Wilderness Lakes

Public ownership of an undeveloped shoreline is the primary requirement of a wilderness lake. An equally important consideration is low and controlled user density. Few lakes in Oconto County are totally public. Some small lakes, most of which have a limited sport fishery, could qualify. These lakes should be retained in their present condition as development would destroy their intrinsic wilderness qualities. Some of Oconto County's remaining wilderness lakes include Fanny, Farr, Gluckie, Holt, Lincoln, Lost (T31N, R18E), Lower Range, Perch, Spring and Upper Range. Retention of these lakes and others like them, in their present state would perpetuate the opportunity for wilderness experiences on Oconto County lakes. Many potential wilderness lakes have extensive wetland and shallow depths which suggests that their primary value should be for wildlife. About two-thirds of all the lakes in the county have undeveloped shorelines. There are 109 lakes in the county that have their entire shorelines in public ownership. They range in size from 0.1 to 34.3 acres with 92 percent less than 10 acres. These 109 lakes comprise a total of 399.4 acres and 30.1 miles of shoreline.

Lakeshore Developments

Data on lakeshore developments are provided in Tables 16 and 17. Development is primarily limited to private dwellings, although a few lakes have tourist-oriented facilities such as resorts and campgrounds. The greatest density of development in relation to water area occurs on lakes of 100-199 acres. The one lake over 1,000 acres (White Potato Lake) has the greatest density of development in relation to shoreline footage. The surface water available per development varies from 2.26 acres on lakes of 100-199 acres to 7.17 acres on lakes over 1,000 acres. Lake frontage per development varies from 240 feet on lakes of 100-199 acres to 592 feet on lakes under 50 acres. On many lakes with desirable frontage for development, the private ownership has been largely utilized for cottages and homes, leaving primarily wetland areas and public lands in a wild condition. Two-thirds of the dwellings, 75 percent of the resorts and 82 percent of the campgrounds are located on lakes 100 acres and larger. Considering only developed lakes, there averages one development per 3.09 acres of water and 370 feet of shoreline.

The preference for building on the larger lakes is apparent. However, as the available frontage diminishes the smaller lakes will become more prominent in satisfying the demand for lakeshore developments.

Stream developments are scattered and usually found on the larger waters except in villages and cities where the shorelines of the larger streams have been platted. Stream development is likely to increase as the availability of lake frontage diminishes.

Table 16. The number of lakeshore developments on lakes of various size classes and acres served.

Size Class (Acres)	Dwellings			Resorts			Boat Rentals			Organizational Camps			Campgrounds		
	No. units	No. lakes w/units	Acres served	No. units	No. lakes w/units	Acres served	No. units	No. lakes w/units	Acres served	No. units	No. lakes w/units	Acres served	No. units	No. lakes w/units	Acres served
Less than 50	625	88	1,724.8	7	7	175.3	4	4	121.9	2	2	50.2	2	2	25.6
50-99	327	14	929.5	2	2	172.4	2	2	143.0	1	1	55.8	0	-	-
100-199	542	11	1,389.4	9	5	832.2	1	1	140.4	0	-	-	0	-	-
200-499	1,228	10	3,994.8	18	9	3,127.9	4	3	984.7	0	-	-	7	3	1,243.0
500-999	139	1	978.0	1	1	978.0	0	-	-	0	-	-	1	1	978.0
1000+	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Total	2,861	124	9,016.5	37	24	5,285.8	11	10	1,390.0	3	3	106.0	10	7	2,246.6

Table 17. Density and spatial relationship of lakeshore developments to surface water area and frontage on developed lakes.

Size Class (Acres)	No. Lakes with Developments	Number of Units	Acres	Miles of Frontage	Development per Unit of Surface Acreage	Development per Unit of Frontage Shoreline
Less than 50	94	640	1,833.7	72.42	1 per 2.87 acres	1 per 597 feet
50-99	15	292	1,032.6	31.22	1 per 3.12 acres	1 per 497 feet
100-199	10	552	1,398.6	26.03	1 per 2.53 acres	1 per 249 feet
200-499	12	1,333	3,994.8	75.66	1 per 3.20 acres	1 per 320 feet
500-999	1	141	978.0	6.40	1 per 7.17 acres	1 per 240 feet
1000 or more	-	-	-	-	-	-
Total Development	132	2,958	9,242.4	205.33	1 per 3.12 acres	1 per 367 feet
Lakes Not Developed	247		1,727.1	97.47		

SURFACE WATER PROBLEMS

Problems associated with surface waters are either natural or occur as a result of man's misuse of the environment. Aging of lakes and winterkill are examples of natural problems, but these conditions can be accelerated by cultural activities. Another natural problem, stunted panfish, is caused by an imbalance in the food supply, or too many fish for the available food. This situation tends to occur in small lakes of low fertility, although unbalanced situations may be present in large lakes as well. Rapid development of the remaining water frontage or back lots and increased use of our water resources will pose threats to fish and wildlife habitat and the county's water quality. A policy of prevention, rather than correction, is necessary to avoid overdevelopment and excessive use of the water and associated land resources. This does not negate the need for corrective measures to restore degraded resources.

Water Quality and Pollution

The chemical, physical and biological properties of water will reflect its quality. The criteria by which to judge water quality depend upon the use to which it will be put. Water considered excellent for swimming may not be productive of fish and plant life, but in turn, highly productive water may have plant growth which would make it undesirable for swimming. The proper balance for most situations is a lake which maintains a varied and productive fishery, but without intense algae blooms and heavy rooted aquatic plant growth.

The most serious pollution problems in Oconto County are caused by industrial, municipal and agricultural wastes. A paper mill located at Oconto Falls discharges effluent into the Oconto River, which eventually carries its pollution load into Green Bay. Several other industries and municipal sewage treatment facilities add to the pollution load of the county's rivers. Agricultural runoff is a major problem of streams in the southern portion of the county, adding excessive nutrients and silt, which again find their way to Green Bay. To prevent further deterioration of Green Bay and affected tributary waters, improved treatment facilities at some sources and better soil conservation practices are necessary. Other pollution problems are relatively "minor", but increasing cottage development may contribute additional nutrients to the county's waters from on-site sewage disposal systems.

Habitat, Aesthetics and Shoreline Development

Demands on our water resources, particularly by a rapidly growing urban population seeking rural amenities, are destroying fish and wildlife habitat and natural aesthetic values. On many lakes in Oconto County, development has reached the point where a significant portion of the shoreline has been usurped for building sites. As a consequence, littoral areas and natural features have been altered. If this trend continues, irreparable damage to our waters and wetlands will take place. Man's pursuit of water-oriented recreational activities appears to be one of the major threats to our aquatic resources. Therefore it would seem logical that these activites should be regulated and/or directed in a fashion which would enhance, rather than destroy those resources that were the original attraction. Hopefully the shoreland protection ordinance will serve to minimize the impact of man at the water's edge. However, it cannot be the only means to insure that the environmental essentials necessary for a productive and healthy ecosystem are retained. A society enlightened to the needs of our aquatic environment and receptive to assuming responsibility for its protection is also necessary.

Watershed Management

Surface water problems can be directly associated with improper land use in the watershed. If problems such as siltation, erosion, enrichment and excessive runoff are to be controlled, appropriate soil conservation measures are needed. Agricultural practices, especially in southern Oconto County, have caused erosion, stream bank destruction and enrichment of surface waters, which greatly reduces their quality. In a county having areas of intensive agriculture, good soil conservation practices are essential. Agriculture is not alone in contributing to watershed problems. Improper activities associated with logging, road construction, landscaping, home construction, and other activities that disturb the land add to the problem. If these sources of watershed abuse can be controlled, it will help maintain Oconto County's high water quality.

Winterkill, Weeds and Algae

Table 18 provides data regarding problem winterkill lakes in Oconto County. Lakes which suffer from oxygen depletion each winter are not considered a problem, because they cannot support a sport fishery under normal conditions. Problem winterkill lakes are those which can sustain a sport fishery during most years, but suffer fish kills during winters with a long period of excessive ice and snow cover. Most problem winterkill lakes in Oconto County are from 6-14 feet deep and are usually of the seepage type or landlocked. Most lakes in Oconto County which are considered problem winterkill lakes are under 30 acres, although the largest lake in the county, White Potato, has suffered from periodic winterkill. Winterkill problems affect 6 percent of the lakes involving 16.3 percent of the acreage and 8.9 percent of the frontage.

Extensive weed and algae problems are not common in Oconto County. White Potato Lake is the only large lake considered to have a problem with rooted aquatic vegetation. Few lakes have intense algae blooms, an exception being Machickanee Flowage, a situation caused by pollution. Some small lakes have weed and algae problems, but comprise a small portion of the county's total lake acreage. In the future, if excessive amounts of nutrients from agriculture, septic systems, etc. reach Oconto County's lakes and streams, new problems could develop or existing ones may intensify.

Table 18. Incidence of known problem* winterkill lakes in Oconto County related to various water depths.

Water Depth (Feet)	No. Lakes	Area (Acres)	Miles of Shoreline
Less than 6'	4	122.2	3.78
6' - 9'	9	137.4	5.55
10' - 14'	5	1,422.7	15.41
15' - 19'	1	22.2	1.05
20' - 24'	0	-	-
25' or more	2	27.1	1.31
TOTAL	21	1,731.6	27.10

*Many shallow lakes which experience oxygen depletion are not considered problem winterkill situations, because they do not normally maintain a sport fish population and are best suited for wildlife, waterfowl and/or forage fish production.

Fishery

The primary problem associated with the fishery in Oconto County, exclusive of habitat losses, is stunted fish populations. This occurs when there is an over-abundance of one species or several species in relation to their food supply. Panfish are the most commonly stunted fish, but predator species such as northern pike, walleye and largemouth bass can also become stunted or slow growing if food is scarce.

Carp are found in most streams tributary to Green Bay upstream to natural or man-made barrier. The only large lake to have a carp problem is Machickanee Flowage. Several small lakes on streams tributary to Green Bay have become infested with carp.

Problems associated with the stream fishery are primarily habitat destruction, high water temperatures and industrial or municipal pollution. Most of the streams in southern Oconto County flow through areas of intensive agricultural activity. They are subject to siltation from farm fields, bank destruction from livestock and marked flow variability in some cases. Some of the larger trout streams in the county have problems with high water temperatures during the summer, especially the Main Oconto River and its North Branch below Chute Pond. Beaver dams on trout streams are detrimental due to siltation, loss of stream bank vegetation and warming of the water.

Inadequate natural reproduction of sport fish also can be a problem in some lakes and streams.

Public Access

Public access to lakes in Oconto County is generally good. In many instances boat landings are not well developed on the smaller lakes, but this is desirable because use is restricted to the size or type of boat that can be launched. Lakes having no public access, but which should have at least the walk-in type are as follows: Balcom, Barnes, Chicken Crop, Deadman, Deer, French, Funk, Hidden, Impassable, Kathleen, Ledge, Little Archibald, Miller, Newton, Shay (T32N, R15E), Sunrise, Trout and Winslow. There are many small lakes in addition to these which may eventually require public access. If public access is to be developed to small lakes, it should be of the walk-in type. Public access to streams is generally satisfactory, except in the southern portion of the county where it is restricted primarily to road crossings.

Boating

Although Oconto County has few lakes suitable for fast boating and water skiing, exclusive of Green Bay, the popularity of these sports continues to rise. As density levels increase, boating can become hazardous and conflicts arise with other users. If these problems are to be minimized, planning must be implemented which will control excessive use and strive to achieve compatible utilization of the resource.

THE FUTURE

Oconto County has a high quality and diversified water resource which offers a wide range of recreational opportunities. If this quality is to be maintained, it will be necessary to develop land and/or water use controls that first meet environmental needs and secondly the needs of people. The shoreline protection ordinance is one way available to protect the county's valuable water resource. This protection, along with compatible land use, will hopefully prevent deterioration of Oconto County's lakes and streams. The future of this resource depends on today's actions.

ACKNOWLEDGEMENTS

Grateful appreciation is extended to Department of Natural Resources personnel and personnel of other agencies who provided data and helped with the preparation of this report.

DEFINITIONS

aesthetics - The scenic qualities of water and its surroundings. Wild shorelines usually have higher scenic values than developed shorelines.

direct drainage area - The land and water area where runoff flows directly into a particular lake or stream, as differentiated from watershed area. For streams only the area within the county is considered, whereas for lakes the county boundary is ignored.

forage fish - The various species of minnows, suckers, etc., are collectively grouped under this heading.

lake types - There are significant limnological characteristics peculiar to each lake type, based on their physical and chemical properties. The production of plant and animal life generally varies in accordance with lake type. Four basic classifications were used in this inventory. Lake types and qualifying criteria are:

drainage lake -Impoundments and natural lakes whose main water source is from stream drainage. Has at least one inlet and an outlet.

drained lake - Natural lake whose main water source is dependent on the groundwater table, basin seal and seepage from adjoining wetlands. Seldom has an inlet but will have an outlet of very little flow. Characteristics similar to that of the seepage lake except for the outlet.

seepage lake - No inlets and no outlets; landlocked. Intermittent outlet may be present. Water level maintained by groundwater table and basin seal.

spring lake - Seldom has an inlet, but always has an outlet of substantial flow. Water supply dependent upon groundwater rather than surface drainage.

landlocked - Shut in by land and not having permanent inlets or outlets.

littoral zone -The shoreward region of a lake. The area affected by wave action and currents near shore. Literal interpretation is that part of the lake basin is generally less than 5 feet deep. Figures presented in the lake narratives on this subject represent an estimate of the amount and type of materials found in this zone.

methyl purple alkalinity (M.P.A.) - The test used to determine the amount of available carbonates, bicarbonates and hydroxides in parts per million of water. Used to express the relative fertility of water. Low alkalinity waters are generally biologically less productive than those with high alkalinity values. This measurement must be correlated with other limnological factors for a complete assessment.

moraine - Glacial drift or till (debris) deposited by a glacier. Moraines are classified in part as follows:

terminal moraine - A rugged ridge or belt of unsorted till marking the forward edge of a glacier. It is usually crescent or horseshoe shaped. Characterized by numerous small, rounded hills of drift and adjacent depressions distributed in a disorderly fashion in a relatively long, narrow zone. Topography can be described as "hummocky".

ground moraine - Glacial drift deposited beneath the ice during the advance or recession. Consists of a heterogeneous, unassorted and unstratified mass of material. Characterized by numerous large depressions occupied by bogs, swamps and lakes.

pitted outwash - A glacial outwash plain with numerous small kettle holes which resulted from melting ice blocks left during the recession of the ice front.

outwash plain - Stratified drift deposited by melt-water streams beyond the margin of glaciers.

pH - The negative logarithm of the hydrogen ion concentration expressed in gram equivalents. A pH less than 7.0 is acid; a pH of 7.0 is neutral and more than 7.0 is alkaline.

panfish - Collective grouping of fish which may comprise any of all of the following species: Bluegill, perch, rock bass, green sunfish, pumpkinseed, crappie and bullhead.

predator fish (game fish) - Collective grouping of fish to include any or all of the following species: Muskellunge, northern pike, walleye, largemouth and smallmouth bass.

public access - Ability of the general public to utilize public-owned or leased roads or land and water for egress to lakes and streams. Six access types are as follows:

access with parking - Provides a specific area or facility for the legal parking of cars and boat trailers on public land but not the shoulder of the road.

access without parking - Usually a road right-of-way which adjoins or crosses a lake or stream lacking facilities for legal parking. Shoulder of the road is not considered legal parking.

navigable water access - Where streams or interconnecting lakes provide access from a body of water with public access to one that does not have public access.

unimproved or difficult access - Road of any type which permits vehicular travel and lies within 200 feet of the shoreline but does not afford direct access to the body of water.

wilderness access - When there are no roads open to vehicular travel lying within 200 feet of the shoreline but public land permits foot travel to the body of water. Travel on foot would be required for minimum distance of 200 feet.

conditional public access - This type of public access is possible only across lands entered under the Private Forest Cropland Law. Public access rights can be terminated if lands are withdrawn from the private forest cropland law.

public frontage - The Government-owned or leased shoreline bordering lakes and streams (federal, state, county or town).

shoreline development factor (S.D.F.) - Ratio of the length of the shoreline to the length of the circumference of a circle of area equal to that of the lake. A measure of the littoral processes on the lake with 1.0 describing a perfect circle. As the value of this index increases there will be greater irregularity or available shoreline in relation to water area. With increased littoral area or shoreline greater biological productivity can usually be expected.

shoreline developments - Cultural activities, structures, etc., on or about the shoreline of a lake or stream. The activities of man as they relate to the shoreline of a lake or stream whether for various types of dwellings or alteration of the landscape.

specific conductance - The total concentration of dissolved electrolytes in water expressed in micromhos at 77 degrees Fahrenheit. Reflects the relative fertility of water. Water with low conductance usually will have low biological productivity. Compliments the methyl purple alkalinity test for fertility.

trout stream or water - Lake or stream capable of supporting cold-water fish of the salmonidae family. Brook, brown, rainbow, lake and splake are members of this group.

trout stream classification - Class 1 (A): Good water conditions and high natural reproduction and suitable density of wild trout which under our current management programs (land acquisition, habitat improvement, regulations, etc.), could be expected to continue to produce wild trout with good growth with little or no stocking of hatchery fish. (B) Good water conditions, high natural reproduction and suitable densities but few if any legal size fish.

Class II (A): Streams which have good water conditions and may have some natural reproduction, but where natural reproduction is not sufficient to maintain a completely wild fishery and where moderate to heavy stocking would be necessary to assure satisfactory fishing. (B) This subclass would include those waters where no natural reproduction of trout occurs, but where habitat conditions are good and continual annual stocking and carry-over of stocked fish could be expected to provide reasonably sustained fishing throughout the open season. In any case, streams in this class will have some legal size trout (6 inches).

Class III Streams which have marginal water conditions for sustaining trout populations on a year-round basis at the present time, and where environmental conditions cannot be expected to improve or be improved substantially in the future, and where continual stocking of trout at specific time intervals is necessary to provide trout fishing throughout the season.

transparency - Describes the depth or distance that a standard size disk (Secchi disk) can be seen in water. High transparency is the capability of observing the disk at a depth of 12 feet or more. Low transparency would mean it could not be seen at more than 5 feet. The degree of water color has a profound influence upon transparency; however, algae blooms, turbidity and other particles in suspension will also affect transparency.

water color - Clear, light brown, medium brown or dark brown. Dark brown is a "coffee" color derived from drainage of humic materials in swamps and the other browns are, of course lighter. Color is a limiting factor in light penetration and will influence the amount of dissolved oxygen supplied to water as the result of the photosynthetic activity of aquatic plants.

watershed area - The entire water-gathering land surface of a particular lake or stream including the surfaces of other lakes and streams irrespective of county or state boundaries.

wetlands - Land area where the water table is at or very near surface, thus prohibiting most cultural activities without alteration of the environment. Some types of wetlands referred to in this report are:

bogs - Waterlogged soil conditions. Typical vegetation is leatherleaf, cranberry, Labrador tea and sphagnum moss.

fresh meadow - Soggy ground or seasonally flooded areas which are normally too wet for agricultural practices. Sedges, grasses, smartweeds or broadleaf plants are typical vegetation. Bur reed may sometimes be found in moist pockets.

shallow marsh -Water present during most of the growing season, at least in parts of the area. Water depth not in excess of 6 inches. Cattails, river rush, bulrushes, and spike rushes are typical vegetation.

deep marsh - Water from 6 inches to 3 feet in depth during the growing season. Typical vegetation may consist of cattails, reeds, bulrushes, spike rushes, and pondweed.

shrub swamps - Waterlogged soil with occasional standing water. Typical vegetation may consist of alders, dogwood and willow.

timber swamps -Waterlogged soil with occasional standing water. Typical vegetation may consist of black spruce, tamarack or white cedar -- if coniferous and black ash, elm or silver maple -- if hardwood.

(Plant types are not intended to be a complete list for each type of wetland but serve only as indicators for the various types. Frequently there are combinations or integration of plant species in the various wetland types.)

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APPENDIX I: OCONTO COUNTY LAKE DATA

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Anderson	3	30	17	182.0	40	2.19	.30	1.19	30	D	70	167	6.8	MB	7.2	11
Archibald	2	32	15	429.9	58	8.95	.01	3.23	34	S	103	185	7.1	C	4.2	9
Archibald Tower Springs	14	32	15	8.2	13	.69	.08	1.72	85	S	111	243	7.2	LB	.1	5
Balcom	17	28	19	64.5	62	1.48	0.00	1.31	89	S	70	166	6.8	C	.5	48
Barnes	16	32	15	33.9	25	1.35	0.00	1.66	30	S	87	179	7.2	LB	.4	25
Bass	14	31	18	16.2	25	.60	.12	1.06	40	S	71	144	7.6	LB	.2	34
Bass	4	32	15	148.8	50	2.56	.27	1.42	15	S	81	186	7.2	C	.8	9
Bass	23	32	17	12.3	11	.55	.01	1.12	79	Dr	65	121	7.0	C	.1	1
Bear	21	33	16	77.5	16	1.88	0.00	1.52	95	D	129	240	7.5	C	.8	38
Bear Paw	8	31	17	48.5	20	1.83	.15	1.88	95	S	21	71	6.8	C	1.6	10
Beaver	11	28	19	8.2	22	.44	0.00	1.09	100	Dr	194	395	7.5	MB	.3	32
Benz	17	29	18	11.3	8	.58	0.00	1.23	100	S	25	118	6.4	MB	.5	32
Berry	19	28	17	201.0	27	3.19	.01	1.91	30	S	65	156	6.9	C	2.6	32
Big Gillett	18	32	16	34.2	26	1.02	0.00	1.24	60	D	128	259	7.3	C	4.5	28
Big Island	24	32	15	36.8	25	1.44	.23	1.69	85	D	118	249	7.4	C	11.7	3
Binder	19	33	16	22.0	17	.77	0.00	1.17	24	S	91	182	7.7	C	.4	5
Boot	9	32	15	262.7	40	4.50	.77	1.42	20	S	70	154	7.2	C	.5	0

*D = Drainage
S = Seepage
Dr = Drained
Spr = Spring

+LB = Light Brown
MB = Medium Brown
DB = Dark Brown
C = Clear

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Boulder	21	31	15	362.3	11	3.80	.56	1.42	20	Spr	130	276	7.6	C	2.4	2
Boundary	12	32	17	37.1	20	.90	.01	1.23	25	Dr	125	270	7.6	C	.2	2
Bowman	32	33	15	10.8	39	.51	0.00	1.11	60	D	102	221	7.6	C	.2	42
Brooks	34	29	18	8.6	15	.52	0.00	1.26	100	D	212	489	7.6	DB	4.0	4
Bullfrog	26	33	16	15.5	19	.64	0.00	1.16	25	S	60	125	7.4	C	.4	1
Camp	7	32	16	14.7	18	.74	0.00	1.38	99	D	123	265	7.7	C	2.9	10
Camp Four	19	32	16	23.7	18	.98	.17	1.44	75	S	50	281	7.1	C	.3	1
Cave	15	32	15	21.3	34	1.14	.24	1.76	60	S	59	135	8.0	C	.1	0
Cedar	12	32	15	3.9	25	.32	0.00	1.12	60	Spr	146	276	7.8	C	.1	1
Cedar	12	32	17	19.6	5	.76	.19	1.22	79	S	25	84	6.6	LB	.2	9
Chain	31	33	16	81.4	50	2.95	.01	2.33	35	Spr	117	160	7.2	C	1.0	0
Chicken Crop	15	32	15	28.0	19	1.54	0.00	2.07	75	S	42	83	7.5	LB	.1	9
Chicken Foot	15	32	15	49.8	20	2.23	.32	2.25	60	S	78	198	7.3	C	.3	1
Christie	19	28	18	387.0	10	6.95	.01	2.52	100	Dr	123	302	7.7	LB	3.0	588
Chute Pond	36	21	16	417.0	18	9.88	2.76	3.45	48	D	100	230	7.9	LB	198.0	10
Company	9	28	19	15.3	49	.70	0.00	1.27	70	S	56	146	7.2	LB	1.1	18
Cooley	2	29	18	52.0	43	1.32	.16	1.30	100	D	96	229	7.4	MB	1.0	34
Crab	17	33	16	8.6	10	.49	0.00	1.19	90	S	52	127	7.4	C	.3	3
Crooked	22	32	17	143.3	37	3.06	.03	1.81	50	D	54	102	6.9	C	2.6	4

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Deadman	22	32	15	36.9	47	1.44	0.00	1.19	45	Spr	110	218	7.2	C	.3	0
Deep	12	32	15	3.2	20	.27	.15	1.08	100	D	137	270	7.6	C	.1	2
Deer	26	30	18	26.5	5	.80	0.00	1.10	98	Spr	100	205	8.2	C	.7	95
Dell	12	32	17	34.5	10	.91	.87	1.29	99	S	19	55	6.6	MB	.5	30
Delzer	6	27	19	7.5	35	.42	0.00	1.09	99	S	128	277	7.8	LB	.3	0
Dollar	17	32	15	1.9	13	.20	.07	1.04	100	S	8	36	6.1	LB	.1	4
Dombrowski	32	28	19	4.2	19	.32	0.00	1.11	100	S	53	148	6.9	DB	.8	64
East Twin	29	32	15	5.0	23	.37	.37	1.18	85	S	10	25	6.0	LB	.1	1
Explosion	29	33	15	30.5	27	1.24	0.00	1.60	98	Spr	112	229	7.3	C	.2	7
Fanny	7	32	15	18.6	18	.68	.68	1.12	90	S	5	27	6.2	LB	.2	2
Far	12	32	15	3.4	22	.30	.15	1.16	100	Spr	134	283	7.8	C	.1	2
Farr	15	31	17	12.9	14	.57	.57	1.16	100	S	23	83	6.7	LB	.4	34
Finnegan	28	28	18	17.6	38	.83	.01	1.41	5	S	74	189	7.4	LB	.7	2
First	33	30	19	8.5	24	.44	0.00	1.07	95	S	97	222	7.3	LB	.3	5
Flower	13	32	17	33.6	6	1.13	.52	1.37	58	S	40	111	6.8	LB	.5	26
French	13	32	15	28.9	29	1.09	0.00	1.45	97	D	131	282	7.6	C	4.1	5
Frog	1	31	18	6.3	19	.43	0.00	1.22	100	S	8	48	5.9	C	.1	0
Funk	23	30	18	30.5	18	.85	0.00	1.09	100	D	137	281	7.3	C	1.3	15
Gaffney	12	31	18	9.3	14	.53	0.00	1.24	100	S	75	166	7.0	LB	.1	10
Gilkey	14	32	17	19.9	6	.75	.20	1.20	85	Dr	69	211	6.8	C	4.5	3
Gluckie	24	33	15	27.6	8	.80	.80	1.09	100	S	41	99	7.0	LB	.7	51
Gray	29	28	19	10.5	21	.59	0.00	1.30	95	Spr	165	469	7.5	LB	.1	8

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Green	13	31	16	22.4	25	.80	.13	1.21	30	S	113	255	7.1	C	.4	13
Grignon	7	29	17	25.6	17	.95	.01	1.34	80	D	102	252	7.3	MB	24.2	18
Grindle	21	32	17	42.0	23	1.00	.17	1.13	0	S	13	57	6.1	C	.4	3
Hagen	20	32	16	26.8	26	.94	0.00	1.29	60	S	3	22	6.4	LB	.3	17
Halfmoon	1	31	18	27.6	35	1.00	.01	1.35	70	S	14	53	6.8	C	.2	0
Hell's Acre Springs	28	32	15	3.4	16	.52	.52	2.01	90	D	113	354	7.2	C	.4	5
Hidden	8	33	16	36.0	45	.95	0.00	1.13	45	D	90	201	7.4	LB	.9	29
Hills Pond	4	31	15	9.7	6	.58	.58	1.33	85	D	122	270	7.1	C	6.8	3
Hoerth	33	30	18	6.0	23	.36	0.00	1.05	100	S	115	270	7.6	LB	.3	13
Holt	13	31	18	6.0	23	.38	.38	1.10	100	S	31	76	6.6	LB	.1	4
Horn	21	33	15	132.0	13	2.31	.01	1.32	60	Spr	72	161	7.2	C	.9	28
Horn Shaped	28	33	15	6.0	15	.55	0.00	1.20	100	S	9	252	6.1	LB	.2	4
Impassable	23	30	18	83.7	5	2.16	0.00	1.70	100	D	119	254	7.2	LB	3.0	170
Jocko	29	30	19	16.9	31	.80	0.00	1.38	100	D	186	405	8.2	LB	2.8	9
Johnson	17	29	19	6.3	6	.40	0.00	1.13	95	S	43	75	6.7	LB	.8	25
Kathleen	21	32	15	22.9	33	.91	0.00	1.36	70	S	5	36	6.2	C	.3	2
Kelly	6	29	19	361.3	41	3.70	.41	1.38	25	D	113	245	7.1	C	2.4	2
Klaus	4	28	18	22.4	50	.80	0.00	1.20	85	S	164	432	7.4	MB	2.0	3
Kobus	9	31	18	3.7	5	.34	.34	1.26	100	S	157	219	7.0	LB	1.3	103
Krake	15	32	15	2.6	4	.33	.09	1.46	100	S	65	116	6.7	LB	.1	5
Kuplie	3	28	19	15.2	22	.64	0.00	1.17	99	S	150	322	7.5	LB	.4	82

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lackawanna	1	33	17	8.8	3	1.05	0.00	2.52	95	D	129	278	7.2	LB	1.9	10
Lake John	16	33	16	102.7	26	1.75	.27	1.23	85	D	115	248	7.6	LB	4.1	8
Lauder	29	33	15	8.7	9	.44	.03	1.06	98	S	51	125	7.2	LB	.2	18
Ledge	1	32	17	33.5	19	.94	0.00	1.31	40	S	33	97	6.7	LB	.6	41
Leigh Flowage	30	30	19	231.0	52	2.61	.32	2.17	25	D	123	259	7.5	C	1.1	0
Lily	8	28	19	5.3	49	.51	0.00	1.64	100	S	35	104	7.0	LB	.2	10
Lincoln	7	33	16	12.6	16	.57	.57	1.15	45	S	23	25	6.5	LB	.3	11
Line	10	32	15	2.3	15	.29	.29	1.36	85	S	94	198	7.3	LB	.1	0
Little Archibald	36	33	15	55.8	65	2.19	0.00	2.08	75	S	81	172	7.4	C	.6	6
Little Bass	14	31	18	3.0	25	.29	0.00	1.19	90	S	55	138	6.8	MB	.1	4
Little Bear	20	33	16	12.0	14	.88	.07	1.81	95	S	108	222	6.6	C	.5	4
Little Gillett	18	32	16	16.0	25	.69	.01	1.23	70	D	129	270	7.4	C	4.6	7
Little Horn	28	33	15	24.0	22	.87	0.00	1.28	85	Spr	68	156	7.3	C	.1	0
Little Maiden	7	32	16	39.1	17	1.52	0.00	1.72	64	D	123	267	8.0	C	.7	7
Little Pickerel	1	31	18	5.3	17	.36	.18	1.11	100	D	78	178	7.0	MB	3.7	13
Little Pickerel	11	33	15	23.7	23	1.10	0.00	1.61	90	Spr	114	240	7.2	C	.3	35
Little Squaw	24	30	18	14.7	11	.69	0.00	1.28	95	S	125	268	7.5	LB	.4	7
Long	31	30	19	37.9	22	1.31	0.00	1.51	85	S	57	130	7.3	C	.3	0
Long	9	32	15	9.4	6	1.00	0.00	2.32	100	S	90	155	6.6	LB	.1	9
Lost	9	31	18	5.7	27	.36	.36	1.06	100	Dr	108	235	7.1	LB	3.1	621
Lost	24	32	15	2.6	2	.46	.46	2.02	100	D	131	223	7.4	C	2.5	5

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lower Island	24	32	15	11.9	26	.61	0.00	1.26	95	D	119	239	7.5	C	11.9	12
Lower Jones Springs	7	32	15	2.8	7	.51	.51	2.17	80	D	122	260	8.1	C	.1	2
Lower Range	13	32	15	5.2	22	.38	.38	1.19	100	D	139	270	7.6	C	.1	1
Lower Wapato	32	33	15	38.3	10	1.23	.53	1.26	93	D	81	187	7.1	LB	.8	27
Lower Wheeler Pond	22	33	15	303.0	27	5.56	.04	2.28	68	D	87	178	6.6	LB	28.6	0
Machickanee Flowage	34	28	20	434.9	23	6.19	.02	2.17	80	D	107	254	7.1	MB	770.0	77
MacHolm	34	30	18	12.9	52	.60	.02	1.19	100	S	122	270	8.1	MB	.8	91
Maiden	7	32	16	290.0	60	5.53	.02	2.31	25	D	128	270	7.3	C	2.6	2
Marsh	14	31	18	2.8	17	.25	.12	1.06	100	S	28	88	6.8	DB	.3	158
McComb	28	31	16	19.8	34	.70	.31	1.25	50	S	1	22	5.6	LB	1.4	103
Midget	24	31	16	7.0	20	.45	0.00	1.21	30	S	87	216	7.1	C	.1	0
Miller	21	32	15	15.5	20	.64	0.00	1.16	70	S	5	24	5.8	C	.4	4
Moody	3	30	17	17.7	9	.81	0.00	1.37	70	S	7	55	6.0	LB	.2	9
Mosquito	4	33	15	6.1	20	.40	0.00	1.16	95	D	53	148	7.5	LB	2.3	7
Mud	24	32	15	3.8	7	.30	.30	1.10	100	S	7	33	6.0	LB	.1	6
Munger	21	33	16	97.2	21	2.03	.01	1.46	88	D	126	225	7.2	C	2.0	20
Nelligan	27	32	17	50.4	26	1.57	.19	1.58	10	S	5	35	5.8	C	1.7	646
Newton	23	28	18	19.2	33	.85	0.00	1.38	95	D	165	392	7.4	C	2.6	5
North Mountain	1	31	15	9.7	3	.58	.58	1.33	100	Spr	58	142	7.2	LB	.2	2
Oconto Falls Pond	26	28	19	167.0	28	2.64	.03	1.70	35	D	114	270	7.3	LB	729.0	0

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Papoose	24	30	18	1.5	5	.19	0.00	1.10	100	S	122	249	7.4	LB	.1	12
Pat	7	31	16	9.6	13	.48	0.00	1.12	97	Spr	82	167	6.6	LB	.2	3
Paya	10	32	16	121.4	40	1.78	.01	1.15	10	S	90	198	8.2	C	1.0	0
Pecor	36	30	18	18.8	23	.75	.12	1.23	50	Spr	122	262	7.8	C	.2	14
Perch	13	31	18	7.9	24	.42	.42	1.06	100	S	106	225	7.7	C	.6	133
Perch	29	32	15	13.0	10	.69	.69	1.36	60	Dr	91	211	8.2	C	.2	1
Pete	18	29	19	3.9	21	.35	0.00	1.26	100	S	6	125	5.2	MB	.4	32
Peterson	33	30	18	7.8	56	.68	0.00	1.74	99	S	107	270	7.0	DB	1.5	2
Pickerel	1	31	18	31.7	18	1.05	.01	1.33	70	Dr	59	133	7.1	MB	.1	25
Pickerel	11	33	15	126.5	15	3.11	.02	1.97	55	D	109	240	7.2	C	1.8	35
Pine	12	32	15	4.5	15	.32	.02	1.04	99	S	19	27	6.8	LB	.1	1
Pine Ridge	23	33	16	46.3	27	1.25	.01	1.31	15	S	32	78	6.7	C	.3	2
Plantation	13	33	15	21.4	17	.74	.74	1.14	97	S	1	16	6.1	LB	.8	4
Ponsegrau	7	30	18	1.7	8	.20	.20	1.09	100	S	33	96	6.9	MB	.5	279
Porcupine	12	29	19	30.3	20	.88	.01	1.14	99	D	197	475	7.7	LB	7.8	58
Quill	13	32	15	23.8	31	.88	.55	1.29	98	D	131	265	7.7	C	1.1	4
Ranch	12	31	18	46.1	40	1.35	.80	1.27	20	S	65	150	7.4	C	.4	5
Reader	13	31	18	6.1	22	.39	.14	1.12	100	S	63	153	7.4	C	.1	5
Reservoir Pond	28	33	15	408.7	13	12.10	.62	4.27	95	D	88	198	7.2	LB	17.3	53
Rost	24	30	19	91.0	29	1.55	.07	1.19	50	S	89	192	7.5	C	.7	1
Round	31	30	19	28.0	31	.81	.02	1.09	90	Dr	64	175	7.0	LB	.2	5

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Second	33	30	19	6.3	30	.39	0.00	1.10	97	S	111	245	7.3	LB	.1	2
Section 30	30	32	15	6.9	11	.56	.56	1.52	80	S	13	58	6.4	LB	.2	0
Sellin	20	33	16	15.7	17	.80	.01	1.44	40	S	26	62	6.8	MB	.1	1
Shadow	35	32	15	26.8	7	1.02	.01	1.41	100	Dr	104	233	8.0	MB	.2	1
Shay	18	31	18	66.2	39	1.46	.01	1.28	100	Spr	110	216	7.6	C	.4	10
Shay	17	32	15	49.8	36	1.95	0.00	1.97	40	S	40	94	6.7	C	.3	1
Small Bass	14	32	15	18.7	27	1.12	.89	1.85	75	S	41	100	7.0	C	.2	0
Smoke	14	33	15	51.3	7	1.25	0.00	1.23	95	Spr	109	232	7.7	LB	.4	16
South Mountain	12	31	15	9.7	8	.58	.58	1.33	70	S	50	130	6.6	LB	.4	0
Spice	5	28	18	19.9	34	.68	0.00	1.09	100	S	135	302	7.4	MB	.9	6
Spies	12	30	18	5.7	4	.42	.40	1.25	100	S	117	216	7.0	LB	.3	3
Spring	2	33	15	12.5	14	.55	.55	1.11	80	Spr	110	242	7.8	C	.1	2
Squaw	24	30	18	22.2	19	1.05	0.00	1.59	100	S	140	299	7.4	LB	.2	9
Star	26	32	15	63.0	21	1.50	.03	1.35	50	S	71	159	7.2	C	.7	9
Sullivan Spring	36	33	16	3.6	2	.56	.56	2.11	100	Spr	129	265	7.6	C	2.1	15
Sunrise	29	32	17	21.6	32	.75	0.00	1.13	10	S	7	26	6.2	C	.2	0
Surprise	10	33	15	69.5	30	1.86	.03	1.59	5	S	21	26	6.8	C	.4	1
Swanson's	12	32	15	3.5	11	.27	0.00	1.03	100	D	129	260	7.6	C	.2	2
Temple	19	31	16	19.7	3	.75	.09	1.02	100	D	118	157	7.3	C	.4	12
Townsend Flowage	15	33	15	140.4	10	3.25	.03	1.96	75	D	92	189	7.0	LB	7.1	8

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Trout	21	32	15	21.9	25	1.44	0.00	2.19	98	Spr	115	234	7.6	C	.3	7
Turtle	35	30	18	4.0	5	.19	.19	1.10	100	S	65	153	6.4	MB	.4	60
Ucil	13	30	18	22.3	33	.79	0.00	1.19	99	S	140	250	7.4	LB	.4	0
Underwood	30	30	19	43.2	36	1.25	.01	1.35	10	S	32	105	6.9	C	.3	0
Upper Island	13	32	15	15.9	18	.64	.46	1.15	100	D	126	273	7.7	C	11.3	9
Upper Jones Spring	7	32	15	3.8	12	.80	.80	2.92	85	D	134	270	7.3	C	.1	0
Upper Range	13	32	15	3.5	16	.30	.30	1.14	100	D	130	260	7.7	LB	.1	2
Upper Wapato	31	33	15	49.6	10	1.44	.08	1.34	75	D	92	103	8.3	LB	.6	5
Veil	13	30	18	53.8	13	1.50	.04	1.48	89	S	70	225	8.0	LB	.3	2
Wades	23	32	15	2.9	7	.46	.15	1.93	100	Spr	102	240	7.7	C	.1	7
Warington	31	28	17	11.4	20	.59	0.00	1.25	30	S	11	60	6.8	LB	.4	0
Waubee	13	33	16	136.5	20	3.38	.55	2.06	5	S	54	127	7.2	C	.3	9
Waupee	3	31	17	34.3	2	.94	.94	1.15	100	S	94	207	8.0	LB	.8	91
Waupee Flowage	21	32	17	80.0	9	3.91	2.68	2.46	55	D	73	172	6.6	LB	11.7	50
Wescott	24	30	18	38.0	29	1.19	.02	1.37	80	Spr	128	262	7.8	C	.3	0
West Twin	29	32	15	5.5	11	.47	.47	1.43	98	S	11	35	6.1	MB	.1	7
Westphall	21	31	17	24.3	10	.73	.12	1.08	80	S	30	100	7.1	LB	.3	20
Wheeler	22	33	16	293.0	35	4.56	.01	1.86	10	S	78	145	7.0	C	1.0	0
White	36	30	18	49.5	49	1.59	.41	1.66	10	D	123	256	7.9	C	.6	9
White Potato	23	31	18	978.0	11	6.40	1.24	1.30	45	S	49	122	7.0	LB	5.4	103
Wichser	19	32	15	14.9	61	.63	.10	1.16	65	S	6	31	6.6	LB	.1	0

Named Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Winslow	8	32	16	58.0	33	2.64	0.00	2.41	96	Spr	136	299	7.4	C	.3	18
Wiscobee	5	29	17	32.1	40	1.14	.02	1.43	100	D	176	424	7.6	LB	1.8	31
Yavell	12	32	15	14.7	43	.73	0.00	1.34	100	D	140	298	7.2	C	.8	0
Unnamed Lakes																
Lake 17-5	17	28	17	16.2	15	.80	0.00	1.42	98	Spr	120	260	7.1	C	.2	2
Lake 20-3	20	28	17	3.0	14	.26	0.00	1.07	5	S	5	33	6.2	DB	.1	0
Lake 1-16	1	28	18	1.9	9	.20	0.00	1.04	100	S	72	232	6.6	MB	.2	96
Lake 10-8	10	28	18	3.4	6	.27	0.00	1.08	50	S	10	54	6.5	LB	.1	0
Lake 22-9	22	28	18	1.6	17	.18	0.00	1.02	100	S	90	276	7.0	LB	.1	0
Lake 22-10	22	28	18	5.5	29	.41	0.00	1.25	90	S	92	270	7.1	C	.1	1
Lake 3-11	3	28	19	3.2	34	.26	.01	1.03	99	S	55	140	7.0	LB	.1	13
Lake 20-1	20	28	19	1.4	23	.19	0.00	1.14	100	S	157	509	7.3	LB	.1	26
Lake 35-2	35	28	19	1.1	3	.26	0.00	1.77	100	S	165	389	7.9	LB	.1	8
Lake 5-14	5	29	17	.5	10	.11	0.00	-	100	S	9	84	5.4	DB	.3	38
Lake 6-13	6	29	17	3.5	14	.30	0.00	1.14	100	D	193	390	7.3	LB	.4	6
Lake 7-1	7	29	17	1.7	7	.22	0.00	1.20	100	S	14	72	5.8	MB	.3	42
Lake 1-6	1	29	18	2.1	4	.21	0.00	1.03	100	S	260	561	6.6	MB	.4	53
Lake 14-4	14	29	18	8.7	3	.44	0.00	1.06	100	S	220	488	6.6	LB	.3	77

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 4-6	4	29	19	3.8	3	.32	0.00	1.17	100	S	95	240	6.3	MB	.3	90
Lake 17-6	17	29	20	.6	2	.23	0.00	-	100	S	173	424	7.2	LB	.1	45
Lake 33-5	33	29	20	.2	3	.06	0.00	-	100	S	320	567	6.5	DB	.3	120
Lake 4-5	4	30	17	1.8	5	.25	0.00	1.32	100	S	144	314	7.2	MB	.1	0
Lake 4-6	4	30	17	1.7	3	.25	0.00	1.37	100	Dr	118	252	7.0	MB	.1	0
Lake 35-5	35	30	17	.9	4	.16	0.00	-	100	S	4	56	5.0	DB	1.0	80
Lake 25-4	25	30	18	1.2	23	.22	.22	1.43	100	S	161	372	7.0	C	.1	5
Lake 25-8	25	30	18	1.5	10	.20	.20	1.17	100	S	68	189	6.2	DB	.6	171
Lake 27-9	27	30	18	1.4	24	.18	.18	1.08	100	S	226	291	6.9	MB	.3	71
Lake 34-14	34	30	18	.4	12	.13	0.00	-	100	S	47	112	6.0	MB	.3	51
Lake 34-15	34	30	18	.3	12	.08	.08	-	100	S	45	129	6.0	MB	.2	44
Lake 29-7	29	30	19	2.5	4	.26	.13	1.17	90	S	148	309	7.2	C	.1	0
Lake 31-2	31	30	19	3.0	4	.27	0.00	1.11	100	S	1	106	4.2	LB	.2	38
Lake 24-7	24	31	15	1.4	10	.21	.21	1.27	100	S	2	35	5.9	LB	.2	7
Lake 26-5	26	31	15	.8	1	.20	0.00	-	90	Spr	138	300	7.0	C	.1	4

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 7-14	7	31	16	.7	1	.14	0.00	-	100	S	117	257	6.5	LB	.1	5
Lake 11-12	11	31	16	1.8	2	.20	0.00	1.06	82	D	150	342	7.4	LB	.1	2
Lake 17-1	17	31	16	1.0	14	.16	.16	1.14	100	S	70	233	6.4	MB	.3	38
Lake 19-10	19	31	16	1.9	2	.24	.24	1.24	100	D	127	255	7.3	LB	.1	30
Lake 19-11	19	31	16	5.5	18	.40	.40	1.21	92	S	4	25	5.8	LB	.1	4
Lake 24-7	24	31	16	.5	3	.10	.02	-	100	S	178	414	6.6	C	.1	1
Lake 25-6b	25	31	16	.9	4	.15	.11	-	100	S	142	305	7.2	C	.1	1
Lake 25-6c	25	31	16	2.1	3	.23	.23	1.13	90	S	143	354	7.0	C	.1	1
Lake 26-1a	26	31	16	.7	3	.17	0.00	-	100	S	174	414	7.3	LB	.1	1
Lake 26-1d	26	31	16	2.7	4	.24	0.00	1.04	100	S	143	312	7.0	C	.1	1
Lake 10-6	10	31	17	.2	6	.10	.10	-	100	S	9	40	5.4	LB	.1	0
Lake 13-6	13	31	17	3.4	7	.39	0.00	1.51	100	Spr	105	228	7.2	LB	.2	2
Lake 1-12	1	31	18	1.0	2	.18	.03	1.28	100	S	23	69	6.2	MB	.1	1
Lake 1-15	1	31	18	1.9	12	.24	0.00	1.24	100	S	5	31	5.6	LB	.1	0
Lake 2-12	2	31	18	6.0	3	.54	.54	1.57	100	D	50	143	6.4	LB	18.0	49
Lake 11-1	11	31	18	4.6	4	.33	.33	1.09	100	Dr	49	143	6.3	MB	.1	30
Lake 12-1	12	31	18	6.1	6	.39	0.00	1.12	100	S	38	83	6.8	LB	.1	2
Lake 12-3	12	31	18	7.8	6	.45	.11	1.14	95	S	74	167	6.9	LB	.1	4
Lake 17-7	17	31	18	3.8	4	.36	0.00	1.31	100	Dr	140	286	7.6	MB	.1	19
Lake 17-10	17	31	18	3.2	12	.32	0.00	1.27	100	D	135	281	7.4	MB	.1	5

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 18-8	18	31	18	19.6	31	.89	.00	1.43	100	Dr	37	112	6.2	MB	.5	132
Lake 18-11	18	31	18	3.2	20	.35	.00	1.39	100	D	116	262	7.5	LB	.4	3
Lake 18-12	18	31	18	5.1	38	.41	.00	1.29	100	D	116	250	7.6	C	1.1	4
Lake 18-14	18	31	18	10.5	6	.68	.00	1.49	100	D	33	90	6.7	LB	.6	10
Lake 36-8	36	31	18	6.0	14	.39	.00	1.13	100	S	123	278	7.0	MB	.4	27
Lake 1-16	1	32	15	7.1	10	.46	.20	1.28	100	S	9	29	6.6	LB	.2	11
Lake 2-3	2	32	15	8.5	5	.64	.00	1.56	100	S	115	234	6.8	LB	.1	10
Lake 2-6	2	32	15	1.8	2	.44	.00	1.17	100	S	60	140	7.0	MB	.1	14
Lake 3-7	3	32	15	2.0	9	.24	.00	1.21	85	S	78	196	6.4	LB	.1	6
Lake 3-9	3	32	15	4.6	3	.45	.00	1.45	100	D	88	191	6.7	C	.2	30
Lake 4-9	4	32	15	1.2	4	.25	.00	1.63	100	Spr	121	257	7.2	LB	.1	4
Lake 6-1	6	32	15	8.9	11	.43	.43	1.03	80	S	6	18	6.2	LB	.2	15
Lake 7-6	7	32	15	.5	6	.12	.12	-	90	Spr	135	270	7.9	C	.1	0
Lake 7-9a	7	32	15	.3	3	.09	.09	-	100	Spr	109	237	7.2	LB	.1	2
Lake 7-9b	7	32	15	.2	2	.06	.06	-	100	Spr	109	237	7.2	LB	.1	2
Lake 9-16	9	32	15	12.5	8	.63	.00	1.23	100	S	75	154	6.8	LB	.1	5
Lake 12-3a	12	32	15	8.5	20	.54	.54	1.32	100	D	132	278	7.7	C	.3	4
Lake 12-3d	12	32	15	.9	5	.21	.21	-	100	Dr	115	250	7.5	LB	.1	0
Lake 12-9	12	32	15	1.2	8	.16	.00	1.04	90	Spr	152	312	7.6	C	.1	1
Lake 13-6	13	32	15	.4	2	.13	.13	-	100	Spr	152	302	7.6	LB	.1	4

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 14-1	14	32	15	.4	8	.11	.11	-	100	Spr	140	319	7.2	C	.1	1
Lake 14-3	14	32	15	2.6	11	.30	.00	1.33	90	Spr	129	270	7.4	C	.1	1
Lake 14-8	14	32	15	1.7	16	.20	.00	1.09	100	S	8	25	6.2	LB	.1	0
Lake 14-13	14	32	15	.7	5	.33	.00	-	80	Spr	125	288	7.4	C	.1	6
Lake 18-8	18	32	15	1.1	9	.16	.16	1.08	100	S	5	22	6.4	LB	.1	34
Lake 18-9	18	32	15	4.8	14	.46	.46	1.49	100	S	2	26	6.0	LB	.1	15
Lake 20-3	20	32	15	.3	8	.06	.06	-	100	S	8	57	6.0	LB	.1	3
Lake 20-16	20	32	15	.2	5	.05	.00	-	100	S	12	53	5.6	LB	.1	11
Lake 23-10	23	32	15	3.3	5	.37	.00	1.58	90	Dr	122	275	7.1	LB	.3	5
Lake 29-4	29	32	15	14.9	7	.63	.50	1.16	95	S	60	149	7.4	C	.3	17
Lake 30-5	30	32	15	.6	7	.12	.12	-	100	Spr	130	223	6.2	C	.1	3
Lake 30-7	30	32	15	.9	13	.15	.15	-	100	S	3	27	5.7	LB	.1	6
Lake 1-8	1	32	16	.2	4	.13	.13	-	100	S	67	164	6.8	MB	.1	5
Lake 2-14	2	32	16	5.7	8	.36	.36	1.07	100	S	8	74	5.6	MB	.7	30
Lake 5-15	5	32	16	4.5	18	.34	.00	1.14	90	S	10	49	6.4	C	.1	3
Lake 7-1	7	32	16	.5	3	.11	.00	-	100	Spr	148	316	7.5	C	.1	3
Lake 7-5	7	32	16	.8	3	.15	.00	-	100	Spr	155	316	7.2	LB	.1	1
Lake 8-8	8	32	16	7.2	7	.48	.00	1.28	100	S	6	37	6.4	LB	.1	19
Lake 8-11	8	32	16	3.9	9	.35	.00	1.26	100	S	412	807	7.4	LB	.3	28
Lake 9-5	9	32	16	10.5	12	.55	.54	1.23	88	S	116	250	8.1	C	.1	0
Lake 9-6	9	32	16	5.1	9	.36	.00	1.14	100	S	106	229	7.7	LB	.1	0

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 9-8	9	32	16	9.8	18	.61	.00	1.39	100	S	8	44	6.6	MB	.1	12
Lake 10-7	10	32	16	.2	1	.10	.10	-	100	Spr	135	297	7.4	C	.1	7
Lake 10-9	10	32	16	8.2	6	.46	.17	1.15	100	S	32	45	5.9	DB	.1	12
Lake 11-6	11	32	16	1.8	3	.21	.21	1.12	85	S	125	269	7.6	C	.1	0
Lake 11-12	11	32	16	2.2	7	.21	.07	1.15	100	S	8	90	5.6	MB	.1	11
Lake 13-3	13	32	16	3.2	21	.26	.26	1.03	100	S	25	46	6.1	MB	.1	1
Lake 15-2	15	32	16	2.5	3	.25	.25	1.13	100	Spr	126	268	7.5	C	.1	8
Lake 15-3	15	32	16	11.4	14	.56	.56	1.18	100	S	8	20	6.0	C	.2	7
Lake 15-6	15	32	16	7.8	8	.45	.05	1.15	100	S	8	33	6.4	LB	.2	9
Lake 16-6	16	32	16	16.3	13	.64	.34	1.13	100	D	127	289	7.3	LB	8.2	34
Lake 17-6	17	32	16	6.0	9	.39	.39	1.13	100	S	12	125	6.3	LB	.1	13
Lake 19-2b	19	32	16	1.0	7	.24	.24	1.71	100	Dr	79	172	7.1	DB	.1	19
Lake 19-2d	19	32	16	.5	9	.10	.10	-	100	S	43	122	6.9	DB	.1	13
Lake 19-4	19	32	16	3.3	6	.30	.30	1.17	100	S	1	49	6.0	C	.1	38
Lake 24-3	24	32	16	1.9	7	.27	.00	1.40	100	D	152	329	7.3	C	.1	3
Lake 26-3	26	32	16	.9	2	.16	.16	-	100	S	162	425	7.2	C	.1	0
Lake 1-6	1	32	17	1.3	22	.17	.00	1.06	100	S	33	206	6.2	LB	.1	20
Lake 1-16	1	32	17	4.4	5	.33	.33	1.12	100	S	12	37	6.0	LB	.1	8
Lake 2-2	2	32	17	.3	1	.18	.18	-	95	Spr	80	179	8.6	C	.1	4
Lake 13-10	13	32	17	12.2	6	.67	.26	1.37	85	S	39	106	6.4	LB	.2	1
Lake 29-7	29	32	17	1.2	1	.32	.32	2.08	100	Spr	111	203	7.4	LB	.2	11

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 29-16	29	32	17	1.4	19	.18	.10	1.09	100	S	31	78	6.7	DB	.1	5
Lake 33-5	33	32	17	3.0	22	.26	.26	1.07	100	S	7	27	5.8	LB	.4	80
Lake 33-7	33	32	17	2.1	6	.24	.24	1.18	100	Dr	77	145	6.4	MB	.2	23
Lake 1-9a	1	33	15	.1	5	.06	.06	-	100	Spr	100	212	7.2	LB	.1	10
Lake 1-9b	1	33	15	1.6	6	.61	.61	3.45	100	Spr	106	222	7.4	LB	.1	8
Lake 7-15	7	33	15	1.1	1	.18	.00	1.21	100	D	100	201	9.1	LB	.1	27
Lake 8-14	8	33	15	2.3	5	.30	.30	1.34	100	S	11	67	6.6	MB	.1	0
Lake 10-8 ca	10	33	15	.7	4	.12	.00	-	100	S	16	61	5.6	LB	.1	11
Lake 10-8 cb	10	33	15	1.3	7	.18	.00	1.13	100	S	17	71	5.5	LB	.1	8
Lake 15-3	15	33	15	1.5	6	.19	.00	1.11	100	S	80	174	7.1	LB	.1	3
Lake 15-8	15	33	15	.3	15	.09	.00	-	100	Spr	116	252	7.3	C	.1	2
Lake 25-4	25	33	15	7.0	14	.41	.41	1.11	99	S	1	21	6.2	LB	.1	8
Lake 28-7	28	33	15	.6	3	.18	.00	-	100	S	12	35	6.0	MB	.1	1
Lake 29-4	29	33	15	.6	3	.12	.00	-	100	S	9	32	6.3	LB	.1	0
Lake 31-13	31	33	15	1.3	4	.26	.00	1.63	100	Spr	107	223	7.2	C	.1	0
Lake 32-3	32	33	15	.6	4	.15	.15	-	95	S	75	208	7.4	C	.1	4
Lake 32-4	32	33	15	.8	4	.16	.00	-	65	S	78	188	7.4	LB	.1	6
Lake 33-16	33	33	15	6.6	6	.40	.00	1.11	100	S	56	86	7.1	LB	.3	42
Lake 34-8	34	33	15	10.6	9	.50	.00	1.10	40	S	78	157	7.3	LB	.3	9
Lake 34-14	34	33	15	5.2	4	.38	.38	1.15	100	S	22	24	6.8	LB	.2	23

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 1-11	1	33	16	1.9	3	.32	.07	1.66	75	Spr	83	182	7.7	C	.1	8
Lake 1-12	2	33	16	.2	1	.12	.00	-	100	Spr	106	227	7.2	LB	.1	10
Lake 2-11 cb	2	33	16	.2	1	.10	.10	-	100	D	71	166	7.2	LB	1.5	2
Lake 2-11 cd	2	33	16	.1	1	.10	.10	-	100	D	73	182	7.1	LB	1.9	2
Lake 3-14	3	33	16	.3	2	.09	.00	-	85	Spr	120	262	7.8	C	.1	2
Lake 3-15	3	33	16	1.4	1	.26	.26	1.57	100	D	99	205	8.2	C	.1	9
Lake 3-16	3	33	16	.1	1	.10	.10	-	100	Spr	60	146	7.1	LB	.1	3
Lake 5-11	5	33	16	5.0	4	.61	.41	2.24	100	Spr	99	205	8.5	LB	.2	9
Lake 7-2	7	33	16	2.9	14	.25	.25	1.05	100	S	29	26	6.8	MB	.2	8
Lake 7-3 da	7	33	16	.2	2	.07	.07	-	100	D	130	274	7.6	C	.4	2
Lake 7-3 db	7	33	16	.3	1	.12	.12	-	100	Spr	140	274	7.6	C	.1	1
Lake 7-3 dc	7	33	16	.1	3	.05	.05	-	100	Spr	120	262	7.5	C	.4	1
Lake 7-4	7	33	16	.2	1	.13	.13	-	100	D	128	274	7.5	C	.4	2
Lake 7-13	7	33	16	.7	3	.16	.16	-	100	D	121	245	7.5	C	.4	4
Lake 9-3	9	33	16	.4	1	.10	.10	-	100	Spr	137	288	7.4	C	.1	3
Lake 11-2	11	33	16	2.7	9	.25	.11	1.09	100	S	1	23	6.8	C	.2	20
Lake 13-12	13	33	16	7.1	22	.42	.00	1.12	45	S	6	31	5.7	LB	.2	13
Lake 14-3	14	33	16	5.8	4	.43	.00	1.27	100	Spr	114	255	7.4	LB	.2	18
Lake 14-7	14	33	16	1.9	10	.20	.03	1.03	100	S	4	31	6.4	MB	.1	9
Lake 15-14	15	33	16	6.2	2	.44	.22	1.26	100	Spr	101	206	8.3	C	.2	15
Lake 16-11	16	33	16	.5	5	.11	.11	-	75	Spr	135	273	7.2	C	.1	2

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 19-15	19	33	16	3.8	5	.40	.00	1.46	55	S	32	78	7.0	LB	.1	1
Lake 19-16	19	33	16	2.0	6	.22	.00	1.11	89	S	22	51	7.3	MB	.1	1
Lake 20-1	20	33	16	.7	6	.09	.09	-	100	Spr	119	267	7.2	C	.2	4
Lake 21-3	21	33	16	2.6	5	.29	.00	1.28	100	Dr	98	180	6.9	MB	.1	16
Lake 21-5	21	33	16	.2	3	.12	.12	-	100	D	120	260	7.4	C	.4	2
Lake 21-6a	21	33	16	.1	1	.10	.10	-	99	D	135	283	7.4	C	.1	1
Lake 21-6c	21	33	16	.8	5	.21	.21	-	100	Spr	115	267	7.2	C	.1	1
Lake 21-6da	21	33	16	.2	2	.11	.11	-	100	D	121	268	7.4	C	.2	1
Lake 21-6db	21	33	16	.6	3	.19	.19	-	97	D	116	255	7.3	C	.2	1
Lake 21-6dc	21	33	16	.2	2	.08	.08	-	95	Spr	121	265	7.2	C	.1	1
Lake 21-10a	21	33	16	.1	13	.16	.16	-	100	Spr	122	225	6.9	C	.1	1
Lake 21-10d	21	33	16	.3	8	.07	.07	-	99	Spr	132	245	6.9	C	.1	4
Lake 22-3	22	33	16	3.6	4	.29	.00	1.09	100	S	25	86	5.7	MB	.2	15
Lake 23-3	23	33	16	6.9	18	.44	.36	1.19	75	S	74	154	7.0	C	.1	2
Lake 23-6	23	33	16	1.8	12	.19	.19	1.01	100	S	4	21	6.3	LB	.1	4
Lake 23-7	23	33	16	5.0	11	.53	.00	1.69	90	S	50	146	6.4	LB	.2	10
Lake 24-2	24	33	16	.1	3	.10	.00	-	100	D	138	307	7.3	C	.1	2
Lake 24-3	24	33	16	.2	7	.10	.10	-	100	Spr	142	302	7.2	C	.1	2
Lake 24-5	24	33	16	.1	5	.08	.00	-	100	Spr	121	286	7.0	C	.1	1
Lake 25-14	25	33	16	.3	4	.15	.15	-	60	Spr	101	229	6.7	C	.1	7
Lake 26-5	26	33	16	4.0	10	.32	.00	1.14	100	S	74	162	7.1	LB	.1	6

Unnamed Lakes	Location Sec.	T-N	R-E	Surface Acres	Maximum Depth (feet)	Miles of Shore-line	Miles of Public Shore-line	S.D.F.	Percent Muck Littoral Zone	Water Source*	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color+	Water-shed Area (Sq. Mi.)	Adjoining Wetlands (Acres)
Lake 27-8	27	33	16	3.7	3	.29	.00	1.07	100	Spr	125	267	7.4	LB	.1	4
Lake 28-5	28	33	16	.9	5	.20	.03	-	100	D	155	347	7.4	C	.3	4
Lake 28-6	28	33	16	3.9	10	.53	.18	2.22	99	D	180	386	7.1	C	.3	4
Lake 28-16	28	33	16	1.0	5	.20	.18	1.43	100	S	5	28	5.9	LB	.1	3
Lake 29-8	29	33	16	1.9	6	.21	.11	1.09	100	S	9	37	6.4	LB	.2	16
Lake 30-10	30	33	16	3.0	7	.43	.03	1.77	89	Spr	133	278	7.1	C	.1	2
Lake 30-14	30	33	16	.7	3	.22	.00	-	100	Spr	102	260	7.0	C	.1	2
Lake 31-1a	31	33	16	1.9	6	.31	.00	1.60	100	S	13	72	5.4	MB	.1	19
Lake 31-1b	31	33	16	.9	26	.15	.00	-	100	S	239	551	6.2	DB	.1	35
Lake 31-6	31	33	16	5.4	10	.56	.00	1.71	100	D	103	222	7.5	LB	.9	6
Lake 34-9	34	33	16	9.9	26	.51	.00	1.16	80	S	27	72	6.9	LB	.1	2
Lake 34-14	34	33	16	3.5	3	.43	.00	1.64	55	D	125	252	7.2	C	40.6	2
Lake 35-4	35	33	16	.7	7	.15	.15	-	100	Spr	133	276	7.4	C	.1	3
Lake 35-13	35	33	16	.7	3	.26	.26	-	43	Spr	143	276	7.5	C	.1	4
Lake 36-10	36	33	16	.3	2	.09	.09	-	100	Spr	142	307	7.6	C	.1	3
Lake 36-15	36	33	16	2.1	12	.25	.25	1.23	100	S	4	24	6.4	MB	.1	8
Lake 3-11	3	33	17	2.2	12	.29	.29	1.39	69	Spr	106	244	7.4	C	.3	6
Lake 7-15	7	33	17	4.4	9	.34	.29	1.15	100	S	17	39	5.9	LB	.2	4
Lake 19-5	19	33	17	1.9	4	.44	.00	2.27	50	Spr	112	237	7.2	LB	.3	5
Lake 29-1	29	33	17	1.9	2	.28	.28	1.45	100	D	135	307	7.7	C	.5	12
Lake 29-9	29	33	17	.1	2	.05	.05	-	98	S	22	49	5.8	DB	.1	2

APPENDIX II: OCONTO COUNTY STREAM DATA

Named Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Archibald	18	33	15	3.6	3.0	3.0	10	.6	3.8	1158	105	240	7.6	C	4.2	49
Bagley	20	30	18	3.1	4.2	-	6	.4	.8	1158	125	261	7.4	LB	6.4	793
Baldwin	8	31	17	.8	1.6	1.6	6	.3	3.8	1158	94	237	7.4	LB	1.6	148
Battle	11	33	16	1.8	2.9	2.9	5	.4	2.2	1158	88	203	7.6	C	2.4	118
Beaver	31	29	20	1.8	3.6	-	4	.3	-	1156	194	395	7.5	MB	3.3	339
Bonita	35	31	16	.7	1.2	1.2	5	.3	2.4	1158	128	286	7.3	LB	1.5	95
Boulder	22	31	15	1.6	1.3	-	10	.5	1.1	1155	130	267	6.9	C	3.4	3
Brehmer	33	28	20	2.5	2.6	2.6	8	.3	4.2	1156	150	330	7.6	C	4.4	96
Brooks	34	29	18	2.0	2.1	-	8	.3	-	1156	231	515	7.4	LB	4.1	58
Christie Brook	25	28	18	3.2	5.2	-	5	.7	-	1156	198	472	7.4	LB	14.6	307
Coopman	36	28	19	2.3	2.7	2.7	7	.3	-	1156	119	267	7.7	MB	4.1	192
Daley	32	29	19	11.5	7.3	-	13	.6	-	1156	224	375	7.4	LB	20.6	462
Deadman	25	32	15	3.0	3.1	3.1	8	.6	4.4	1155	121	221	7.3	C	3.0	141
Deer	23	30	18	.2	.7	-	2	.5	-	1158	100	194	8.2	C	.8	141
Dump	36	28	16	1.0	1.3	1.3	6	.4	1.3	1156	245	588	8.2	C	.7	-
East Thunder	6	33	17	1.6	1.7	1.7	8	.5	3.4	1160	79	155	7.2	C	2.0	110

*LB = Light Brown
MB = Medium Brown
DB = Dark Brown
C = Clear

Named Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Fenske	9	33	16	1.3	2.6	2.6	4	.4	3.4	1158	110	235	6.7	C	2.3	114
First S. Br. Oconto River	31	31	16	33.3	18.3	18.3	15	1.0	28.6	1155	125	269	7.4	C	28.5	1,270
Forbes	36	33	17	3.3	4.6	4.6	6	.3	7.4	1160	136	297	7.4	C	3.8	160
Hay	36	33	17	4.4	6.1	6.1	6	.7	7.4	1160	123	296	7.3	LB	10.9	284
Hayes	4	29	17	5.7	5.2	5.2	9	.9	-	1155	116	343	7.0	LB	11.2	1,388
Hills Pond Cr.	9	31	15	10.0	5.5	5.5	15	.6	8.3	1155	118	312	7.3	C	8.0	357
Hines	19	31	17	5.9	4.4	4.4	11	.5	8.2	1158	149	305	7.2	LB	5.5	277
John	14	33	16	5.9	1.4	-	35	.3	1.2	1158	115	248	7.6	LB	4.8	98
Jones	18	32	15	8.2	2.7	2.7	25	.4	5.4	1155	130	266	7.8	C	10.2	22
Kelly Brook	12	29	20	54.6	19.6	-	23	.7	-	1156	175	368	7.7	LB	74.8	488
Klatt	36	28	17	4.7	4.3	2.8	9	.9	-	1155	192	495	8.0	C	7.3	1,480
Knowles	4	33	16	6.1	5.0	5.0	10	.5	9.5	1158	89	210	7.6	LB	7.3	12
Linzy	15	28	17	4.8	5.5	5.5	17	1.7	-	1155	89	197	7.3	LB	33.8	41
Little River	30	28	21	51.2	16.9	-	25	.8	-	1156	202	481	7.7	LB	177.7	57
Little Suamico R.	29	26	21	42.8	16.8	-	21	.7	-	1136	236	693	8.1	LB	51.0	5
Little Waupee	19	31	17	6.6	6.2	6.2	9	.9	8.6	1158	74	175	6.9	LB	5.7	2,404
Lost	15	31	18	.8	1.3	-	5	.3	2.6	1158	108	235	7.1	LB	2.8	448
Mary	7	32	15	2.3	3.1	-	6	.8	2.4	1155	104	238	7.1	LB	7.7	42
McCaslin	13	32	16	64.7	15.7	15.7	34	.9	9.8	1158	116	250	7.5	C	44.4	273

Named Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
McCauley Brook	5	31	17	5.0	4.6	4.6	9	.7	8.4	1158	137	294	7.2	LB	5.1	240
McDonald	25	30	19	6.4	7.5	7.5	7	.4	-	1157	231	527	7.5	C	8.8	730
McPherson	1	33	17	8.3	2.9	2.9	9	.5	2.9	1160	129	278	7.2	LB	4.3	-
Messenger	36	30	19	8.3	5.7	5.7	12	.5	-	1157	201	422	7.7	C	13.5	142
Mosquito	15	33	15	4.4	4.0	4.0	9	.9	5.5	1158	125	230	7.5	C	5.6	277
Mountain	12	31	15	.1	.2	-	5	.3	.4	1155	59	136	7.1	C	.4	2
Newton	22	28	18	.7	.5	-	11	.4	-	1156	165	392	7.4	C	2.8	2
N. Branch Oconto River	12	29	17	304.5	47.4	47.4	53	1.7	32.6	1158	108	239	7.5	LB	210.0	1,026
N. Br. Pensaukee River	36	27	19	13.5	8.6	-	13	.3	2.0	1147	197	451	7.6	LB	32.0	1,156
N. Br. Peshtigo Brook	11	31	18	6.2	1.9	-	27	1.0	3.1	1158	77	178	6.9	MB	4.8	422
N. Fk. Thunder R.	24	33	17	13.2	8.4	8.4	13	.8	15.8	1160	105	266	7.5	C	21.6	463
Oconto R.	16	29	22	567.8	44.2	23.2	106	1.7	2.3	1156	117	276	7.3	LB	951.8	1,816
Pat	8	31	16	.7	.8	.8	7	.3	.8	1155	82	167	6.6	LB	.5	4
Pecore	3	29	17	12.0	3.3	3.3	29	1.1	-	1155	126	294	7.2	LB	42.3	8
Pensaukee	12	27	21	116.2	28.2	-	34	.9	-	1147	197	454	7.8	LB	100.6	10
Peshtigo Brook	12	29	17	55.5	20.8	-	22	1.2	23.2	1158	113	193	7.3	MB	90.4	9,812
Pickerel	1	33	15	1.9	1.6	-	10	.3	1.7	1158	112	234	7.3	C	8.9	68
Second S. Br. Oconto R.	31	32	16	33.3	13.1	8.6	21	.6	17.4	1155	125	260	7.4	C	26.3	55
Shadow	1	31	15	.7	2.0	2.0	3	.5	3.4	1155	111	260	7.7	LB	2.2	163

Named Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Shay	15	31	18	3.9	2.9	-	11	.4	5.2	1158	111	227	7.4	C	5.4	1,128
Smoke	11	33	15	.7	.3	-	20	3.0	-	1158	109	252	7.7	LB	.5	11
Snowfalls	12	32	16	4.7	3.9	3.9	10	.5	8.4	1158	117	252	7.6	C	3.5	334
S. Br. Beaver	12	30	19	4.4	4.5	4.5	8	.4	-	1157	240	520	7.5	C	9.2	72
S. Br. Oconto	12	29	17	72.7	15.0	15.0	40	1.8	19.0	1155	125	254	7.2	C	160.9	460
S. Fk. Thunder R.	36	33	17	2.7	1.1	1.1	20	1.0	2.2	1160	125	245	7.9	LB	17.0	95
Splinter	34	28	20	1.4	2.8	0.8	4	0.3	2.2	1156	104	210	6.8	C	3.5	-
Spring	35	30	19	.9	2.4	-	3	.2	-	1157	236	525	7.6	C	3.1	30
Spring	2	33	15	.7	.2	-	30	.5	.4	1158	110	242	7.8	C	.2	10
Spring	6	33	17	.3	.5	.5	5	.3	1.8	1160	96	160	7.3	C	1.2	30
Temple	17	31	16	1.0	1.4	1.4	6	.2	2.7	1155	125	264	7.2	LB	1.4	91
Thomas Slough	27	29	22	6.1	2.0	-	25	2.0	1.7	1156	117	302	7.1	LB	15.1	4,416
Town	14	31	16	1.1	1.8	1.8	5	.3	.6	1158	146	385	7.1	C	1.2	38
Wapato	33	33	15	1.0	2.0	-	4	1.0	.7	1158	88	198	7.1	C	2.4	42
Waupee	30	31	17	35.2	12.1	12.1	24	1.2	18.1	1158	92	211	7.0	LB	47.0	324
Weso	31	31	17	10.5	5.4	-	16	1.3	7.5	1158	82	177	6.7	MB	8.0	1,408
W. Br. Peshtigo Brook	11	31	18	3.9	1.6	-	20	1.0	3.2	1158	44	184	6.8	LB	18.0	922
West Thunder	6	33	17	.6	1.3	1.3	4	.3	1.0	1160	90	200	7.3	C	.8	80
Winslow	8	32	16	.1	.1	-	8	.3	.1	1155	136	299	7.4	C	.4	11
Wiscobee	9	29	17	.6	1.2	.5	4	.3	-	1155	190	404	7.2	LB	2.5	19

Unnamed Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream+	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Stream 5-5	5	27	20	.1	.3	.3	3	.2	.6	1156	151	338	7.7	C	.4	2
Stream 6-4	6	27	20	.2	.7	.7	2	.1	1.1	1156	148	326	7.8	LB	1.4	83
Stream 8-13	8	28	17	.3	.7	-	3	.3	-	1155	130	283	7.1	LB	1.1	2
Stream 20-12	20	28	19	.2	.3	-	6	.5	-	1156	186	436	7.3	C	.9	2
Stream 29-1	29	28	19	.1	.3	-	4	.1	-	1156	165	469	7.5	LB	.1	18
Stream 36-6	36	28	19	.5	.6	-	7	.3	.2	1156	221	517	7.5	C	.7	4
Stream 24-13	24	28	20	1.7	3.5	-	4	.1	-	1156	167	425	7.4	LB	5.5	102
Stream 35-5	35	28	20	1.0	1.6	-	5	.3	-	1156	210	454	7.6	LB	6.2	339
Stream 4-5	4	28	22	1.5	.5	-	25	3.0	-	1156	132	340	7.2	LB	.6	115
Stream 9-11	9	28	22	6.0	1.1	-	45	2.0	.7	1156	114	300	7.1	LB	3.7	576
Stream 6-13	6	29	17	.1	.2	-	3	.3	-	1155	206	450	7.3	LB	2.5	5
Stream 12-1	12	29	18	2.1	1.8	-	9	.3	-	1156	159	278	7.3	C	1.3	270

+Figures in parenthesis indicate that the stream has not been verified as trout water by comprehensive survey.

Unnamed Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream+	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Stream 18-2	18	29	19	.7	1.8	-	3	.2	-	1155	123	272	7.0	C	3.1	129
Stream 19-13	19	29	19	1.1	2.2	-	4	.1	-	1155	253	540	7.6	LB	6.1	134
Stream 32-6	32	29	19	.8	1.3	-	5	.3	-	1155	229	510	7.5	LB	.9	96
Stream 18-3	18	29	20	.4	.8	-	4	.2	-	1156	226	592	7.7	C	2.6	58
Stream 20-6	20	29	21	1.0	2.0	-	4	.3	-	1156	163	615	7.3	MB	4.2	510
Stream 32-13	32	29	21	4.5	5.3	-	7	.2	-	1156	221	613	8.0	MB	11.4	154
Stream 26-7	26	29	22	.4	.3	-	12	2.0	-	1156	111	295	7.0	LB	4.6	1,418
Stream 33-4	33	29	22	1.8	3.0	-	5	1.0	.9	1156	122	345	7.0	MB	4.5	371
Stream 11-6	11	30	17	.3	.7	.7	4	.2	-	1158	245	455	7.0	LB	.5	34
Stream 11-9	11	30	17	.7	1.2	1.2	5	.3	-	1158	158	344	6.9	MB	1.7	2
Stream 11-8	11	30	19	.4	1.2	1.2	3	.2	-	1157	243	525	7.4	C	.5	46
Stream 11-14	11	30	19	.4	.9	-	4	.3	-	1157	260	485	7.6	C	.7	3
Stream 29-3	29	30	19	.2	.3	-	5	.2	-	1157	203	426	8.0	LB	.3	30
Stream 9-7	9	31	15	.3	.3	(.3)	7	.5	.6	1155	126	232	7.5	C	1.0	20
Stream 9-8	9	31	15	.5	1.1	1.1	4	.5	2.2	1155	124	276	7.2	LB	.9	80

Unnamed Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream+	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Stream 15-7	15	31	15	.5	1.4	(1.4)	3	.2	2.8	1155	78	153	6.9	LB	1.8	130
Stream 15-12	15	31	15	.8	1.7	1.7	4	.5	1.9	1155	124	281	7.2	C	1.8	39
Stream 1-15	1	31	16	.8	.6	.6	3	.3	1.0	1158	103	229	6.8	LB	.5	44
Stream 7-13	7	31	16	.1	.1	.1	4	.2	-	1155	117	257	6.7	LB	.1	1
Stream 11-12	11	31	16	.1	.1	.1	3	.3	-	1158	150	334	7.4	LB	.2	15
Stream 15-6	15	31	16	.6	1.0	1.0	5	.5	-	1158	119	270	7.1	MB	1.2	114
Stream 23-12	23	31	16	.6	.7	(.7)	7	.5	.2	1158	129	262	6.7	C	.5	50
Stream 24-1	24	31	16	.2	.5	.5	3	.3	.5	1158	105	182	6.8	C	.4	5
Stream 31-8	31	31	16	.1	.3	.3	4	.3	.6	1155	118	265	7.2	MB	.3	50
Stream 31-11	31	31	16	.8	1.3	1.3	5	.3	2.6	1155	136	302	7.3	LB	1.8	163
Stream 5-14	5	31	17	.1	.2	.2	3	.2	.4	1158	110	240	7.6	LB	.3	12
Stream 17-12	17	31	17	.4	.8	(.8)	4	.5	1.6	1158	78	160	6.8	LB	.6	45
Stream 32-5	32	31	17	.1	.2	.2	4	.2	.4	1158	89	218	6.8	LB	.3	49
Stream 32-8	32	31	17	.4	.5	.5	7	.3	1.0	1158	81	205	7.0	C	.8	171
Stream 1-6	1	31	18	.2	.2	-	10	.8	-	1158	59	133	7.1	MB	.2	5
Stream 7-16	7	31	18	.9	1.3	-	6	.3	2.0	1158	94	207	6.5	MB	2.9	57
Stream 11-2	11	31	18	.1	.1	-	6	.8	.2	1158	49	143	6.3	MB	.1	4

Unnamed Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream+	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Stream 18-15	18	31	18	.3	.6	-	4	.2	-	1158	37	112	6.2	MB	.5	15
Stream 20-13	20	31	18	1.5	1.5	-	8	.3	2.2	1158	135	281	7.4	MB	.9	399
Stream 29-2	29	31	18	2.2	2.3	-	8	.3	1.7	1158	112	250	7.4	LB	4.0	471
Stream 3-13	3	32	15	1.0	.7	-	12	.5	-	1155	88	191	6.7	C	.4	23
Stream 4-15	4	32	15	.1	.2	-	4	.3	-	1155	121	257	7.2	LB	.2	6
Stream 7-9	7	32	15	.1	.1	.1	8	.3	.2	1155	109	237	7.2	LB	.1	2
Stream 7-10	7	32	15	.2	.2	.2	7	.3	.4	1155	155	291	7.3	C	.2	4
Stream 12-9	12	32	15	.1	.1	.1	3	.1	-	1155	152	312	7.6	C	.1	2
Stream 13-1	13	32	15	1.3	1.5	-	7	.2	1.2	1155	142	296	7.5	C	.7	42
Stream 13-6	13	32	15	.1	.1	-	4	.2	.2	1155	152	302	7.6	LB	.1	3
Stream 13-7	13	32	15	.7	.7	.7	8	.2	.4	1155	129	270	7.4	C	.4	11
Stream 13-10	13	32	15	.1	.1	.1	8	.2	.1	1155	118	266	7.5	C	.1	7
Stream 14-3a	14	32	15	.2	.2	.2	8	.3	.2	1155	140	319	7.2	C	.1	2
Stream 14-3c	14	32	15	.1	.1	.1	3	.1	-	1155	132	281	7.2	C	.1	1
Stream 29-9	29	32	15	.3	.3	-	9	.3	.6	1155	91	220	8.2	C	.2	3
Stream 30-5	30	32	15	.1	.1	.1	9	.3	.2	1155	130	223	7.2	C	.1	2
Stream 33-14	33	32	15	.5	.9	.9	5	.3	1.8	1155	138	288	7.4	C	.3	27
Stream 33-15	33	32	15	.2	.6	.6	3	.5	1.2	1155	108	234	6.6	LB	.4	46
Stream 7-1	7	32	16	.1	.1	-	5	.3	-	1155	148	316	7.5	C	.1	2
Stream 7-2	7	32	16	.1	.1	-	2	.2	-	1155	155	316	7.7	LB	.1	1

Unnamed Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream+	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Stream 7-10	7	32	16	.2	.4	-	4	.2	-	1155	133	271	7.7	C	.2	3
Stream 10-7	10	32	16	.1	.1	.1	8	.3	.2	1155	135	297	7.4	C	.1	1
Stream 11-11	11	32	16	1.0	.7	.7	12	.3	1.4	1158	126	268	7.5	C	.4	57
Stream 18-15	18	32	16	.1	.2	-	5	.2	.2	1155	64	133	6.4	DB	.2	5
Stream 24-3	24	32	16	.1	.2	-	4	.2	-	1158	159	357	7.2	C	.1	4
Stream 2-2	2	32	17	.6	1.2	1.2	4	.3	2.4	1160	96	200	7.1	LB	1.3	49
Stream 3-13	3	32	17	1.4	3.8	3.8	3	.3	7.6	1160	140	335	7.5	LB	3.5	175
Stream 9-2	9	32	17	1.0	2.7	2.7	3	.3	4.2	1158	204	274	6.8	LB	2.1	53
Stream 15-13	15	32	17	2.1	.7	-	25	1.0	1.1	1158	71	133	6.3	LB	1.0	57
Stream 16-16	16	32	17	.2	.8	-	2	.3	1.6	1158	96	203	6.8	C	1.0	-
Stream 28-5	28	32	17	2.0	2.1	(2.1)	8	1.0	4.1	1158	83	197	7.4	LB	.9	156
Stream 28-6	28	32	17	.5	.7	(.7)	6	.5	1.4	1158	82	197	7.3	LB	.3	68
Stream 32-4	32	32	17	.3	1.1	-	2	.2	2.2	1158	40	106	6.5	LB	1.3	-
Stream 32-13	32	32	17	.3	.8	-	3	.2	1.6	1158	55	159	6.7	LB	1.0	-
Stream 33-12	33	32	17	.1	.4	-	2	.5	.8	1158	99	213	7.1	C	0.7	-
Stream 1-9a	1	33	15	.2	.1	.1	18	.8	.2	1158	100	212	7.2	LB	.1	4
Stream 1-9d	1	33	15	.5	.1	.1	40	1.0	.2	1158	106	222	7.4	LB	.2	4
Stream 2-16	2	33	15	.3	1.4	-	2	.2	2.8	1158	140	307	7.8	C	1.4	61
Stream 7-15	7	33	15	.8	2.3	2.3	3	.2	4.0	1158	79	191	7.1	C	2.0	86

Unnamed Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream+	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Stream 8-15	18	33	15	.5	1.0	1.0	4	.2	2.0	1158	98	196	6.9	C	1.5	36
Stream 16-2	16	33	15	.3	.7	.7	3	.2	.7	1158	118	270	7.7	C	.8	110
Stream 19-15	19	33	15	.2	.6	-	3	.2	1.2	1158	53	118	6.6	C	.2	5
Stream 33-11	33	33	15	.1	.2	(.2)	5	.3	-	1158	111	224	7.4	C	.1	61
Stream 3-15	3	33	16	.1	.1	.1	2	.2	.2	1158	120	262	7.8	C	.1	2
Stream 3-16	3	33	16	.1	.2	.2	3	.3	.4	1158	99	205	8.2	LB	.1	7
Stream 9-13	9	33	16	.1	.3	.3	4	.2	.5	1158	137	280	7.5	C	.1	6
Stream 14-14	14	33	16	.2	.3	.3	6	.2	-	1158	114	255	7.4	LB	.3	7
Stream 15-13	15	33	16	.1	.3	.3	4	.2	.6	1158	101	206	8.3	C	.3	53
Stream 16-15	16	33	16	.4	.8	.8	4	.2	1.6	1158	121	265	7.2	C	.6	34
Stream 16-16	16	33	16	2.5	.7	-	30	.9	-	1158	128	233	7.4	C	1.2	67
Stream 21-9	21	33	16	.3	.3	-	7	.2	-	1158	122	225	6.9	C	.2	19
Stream 21-10	21	33	16	.4	.1	-	35	1.0	.1	1158	132	245	6.9	C	.1	4
Stream 21-12	21	33	16	2.5	.6	-	35	2.0	-	1158	180	386	7.1	C	.3	42
Stream 24-5	24	33	16	.2	.2	.2	8	.2	.1	1158	138	307	7.3	C	.1	8
Stream 25-9	25	33	16	.1	.1	.1	8	.2	.2	1158	101	229	6.7	C	.1	3
Stream 27-5	27	33	16	.1	.1	.1	4	.3	-	1158	125	267	7.4	LB	.1	1
Stream 30-12	30	33	16	.1	.1	.1	4	.2	-	1158	133	278	7.1	C	.2	1
Stream 30-14	30	33	16	.1	.1	.1	2	.2	-	1158	102	260	7.0	C	.1	2
Stream 36-10	36	33	16	.2	.2	.2	8	.3	.4	1158	143	276	7.5	C	.2	8

Unnamed Streams	Location Sec.	T-N	R-E	Surface Acres	Length (Miles)	Miles of Trout Stream+	Average Width (Feet)	Average Depth (Feet)	Public Frontage (Miles)	Water-shed Number	M.P.A. (ppm)	Conduct-ance 77° F.	pH	Water Color*	Water-shed Area (Sq.Mi.)	Adjoining Wetlands (Acres)
Stream 1-14	1	33	17	.4	.9	-	4	.3	3.1	1160	130	288	7.2	C	1.1	213
Stream 2-9	2	33	17	.4	.7	.7	8	.4	1.4	1160	-	-	-	C	.5	-
Stream 3-1	3	33	17	.4	.7	(.7)	5	.3	1.4	1160	124	268	7.2	C	.7	23
Stream 10-11	10	33	17	1.1	1.5	1.5	6	.5	3.0	1160	89	207	7.6	C	.8	42
Stream 12-4	12	33	17	1.2	1.6	(1.6)	6	.5	2.2	1160	47	111	7.0	LB	1.3	198
Stream 12-8	12	33	17	.2	.5	(.5)	3	.3	1.0	1160	57	147	7.2	LB	.4	49
Stream 14-8	14	33	17	.4	.5	.5	6	.5	1.0	1160	58	154	6.3	MB	.7	201
Stream 15-4	15	33	17	1.5	1.8	1.8	7	.3	3.6	1160	105	247	7.4	C	1.3	65
Stream 19-8	19	33	17	.2	.4	.4	4	.5	.5	1158	112	237	7.2	LB	.3	27
Stream 22-3	22	33	17	1.7	1.8	(1.8)	8	.5	3.6	1160	107	206	7.4	C	1.3	152
Stream 23-15	23	33	17	1.6	1.5	1.5	9	.5	3.0	1160	89	200	7.3	LB	1.0	137
Stream 24-9	24	33	17	1.8	2.9	2.9	5	.3	5.8	1160	126	292	7.6	C	5.1	194
Stream 24-12	24	33	17	.6	1.2	1.2	4	.3	2.4	1160	123	264	7.4	C	.9	198

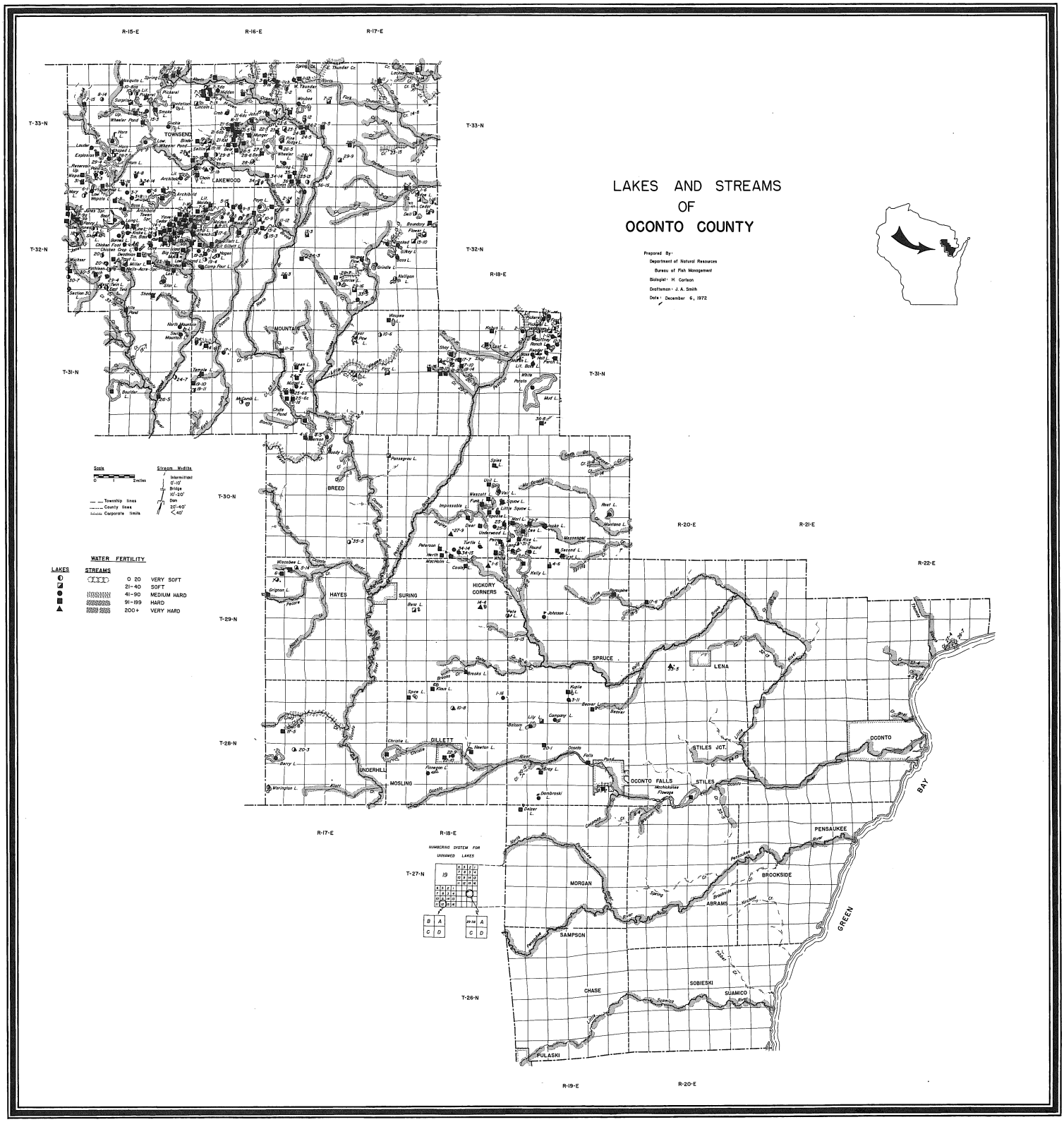

Figure 8. Waters fertility map.

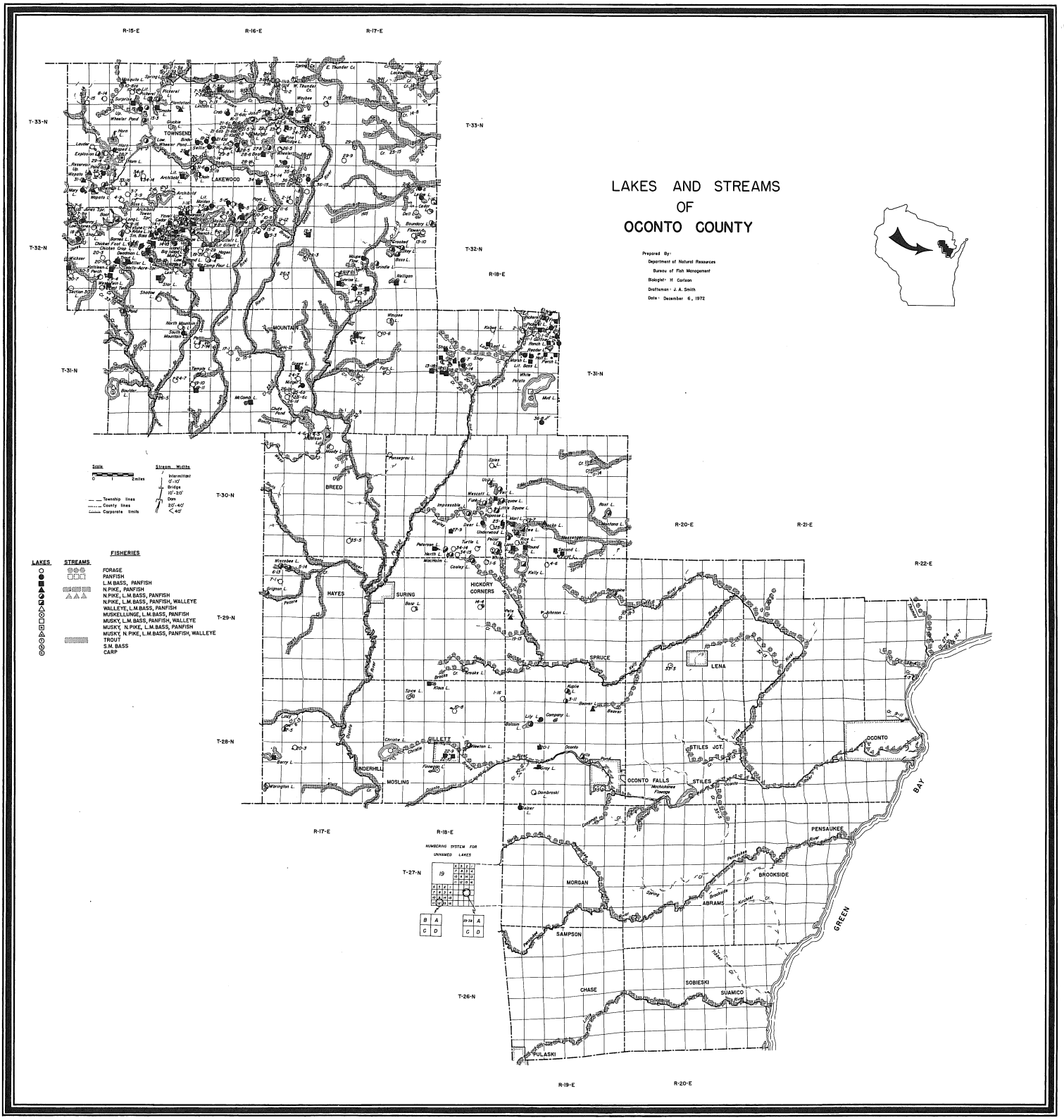

Figure 9. Fishery map.

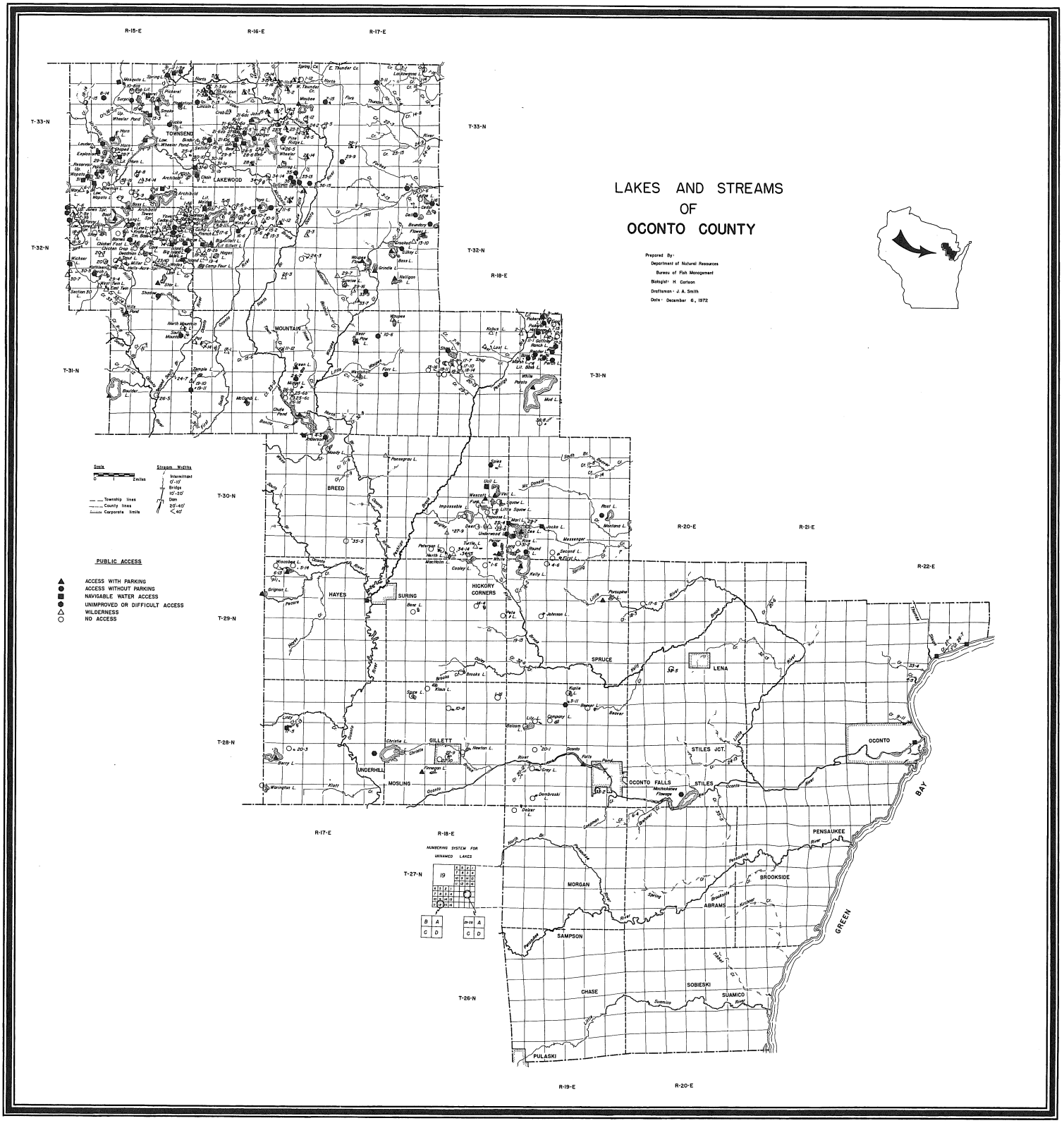

Figure 10. Public access map.

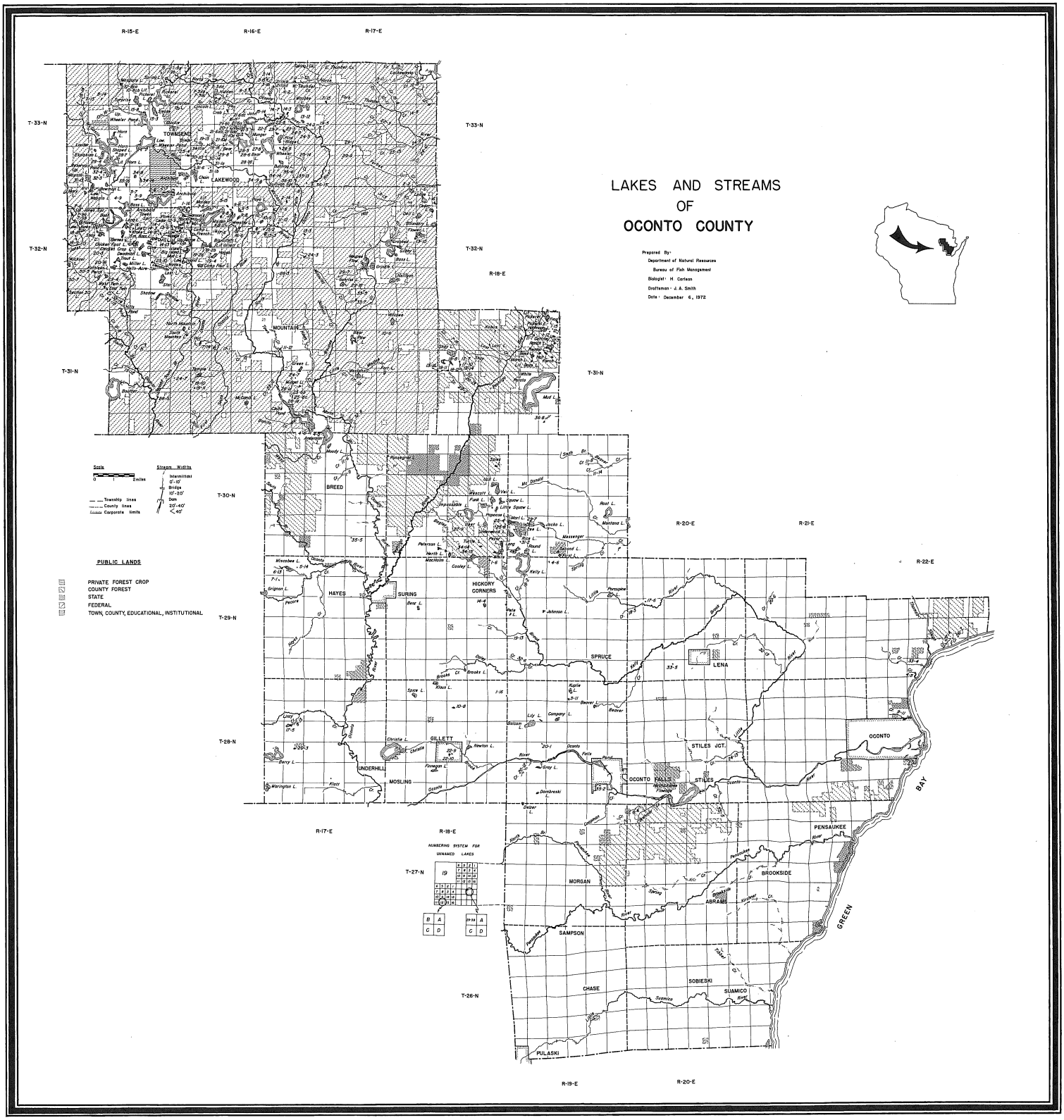

Figure 11. Public lands map.

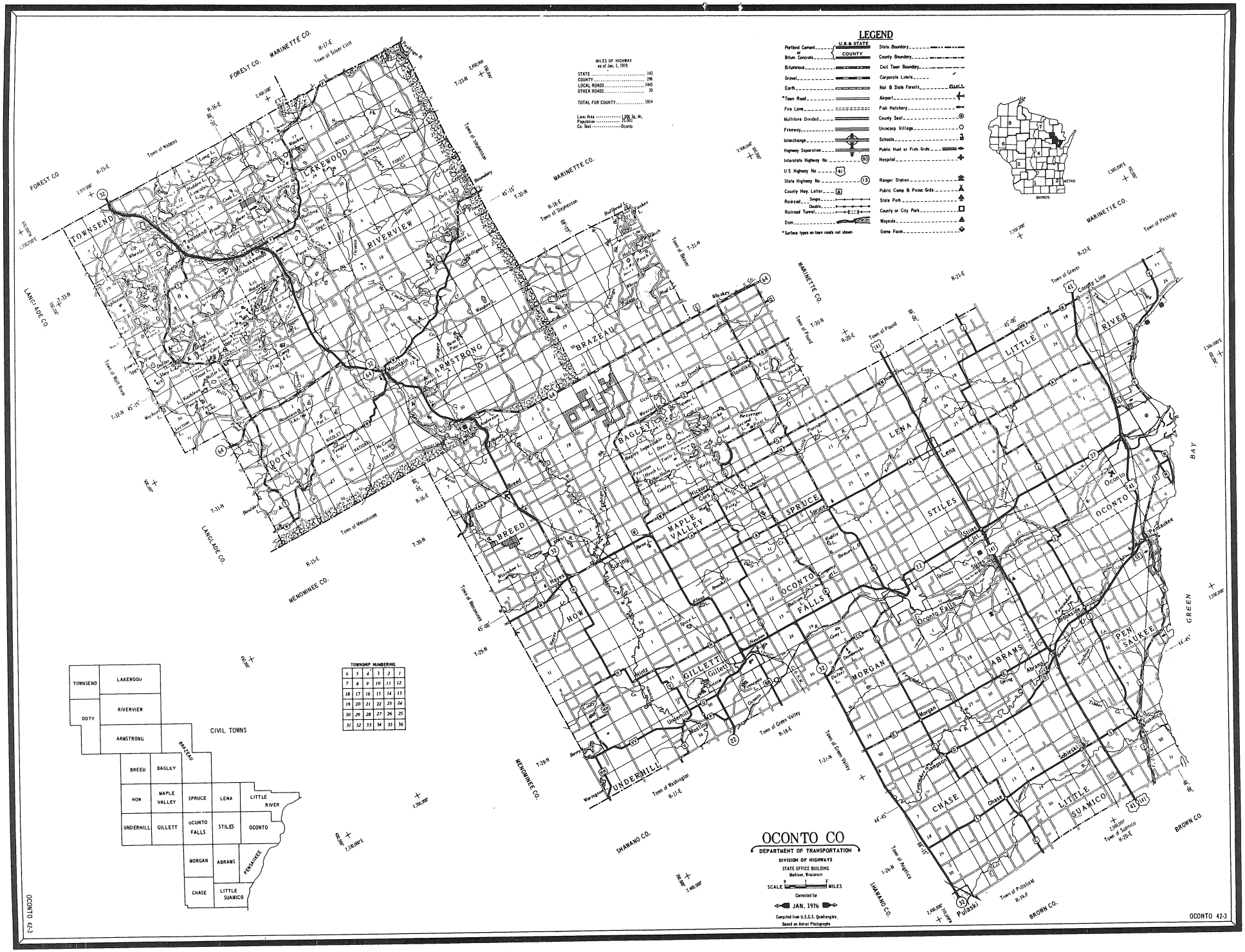

Figure 12. Oconto County highway map.