



## Rapid Watershed Assessment Namekagon River Watershed

Rapid watershed assessments provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. These assessments help landowners and local leaders set priorities and determine the best actions to achieve their goals.

Contents

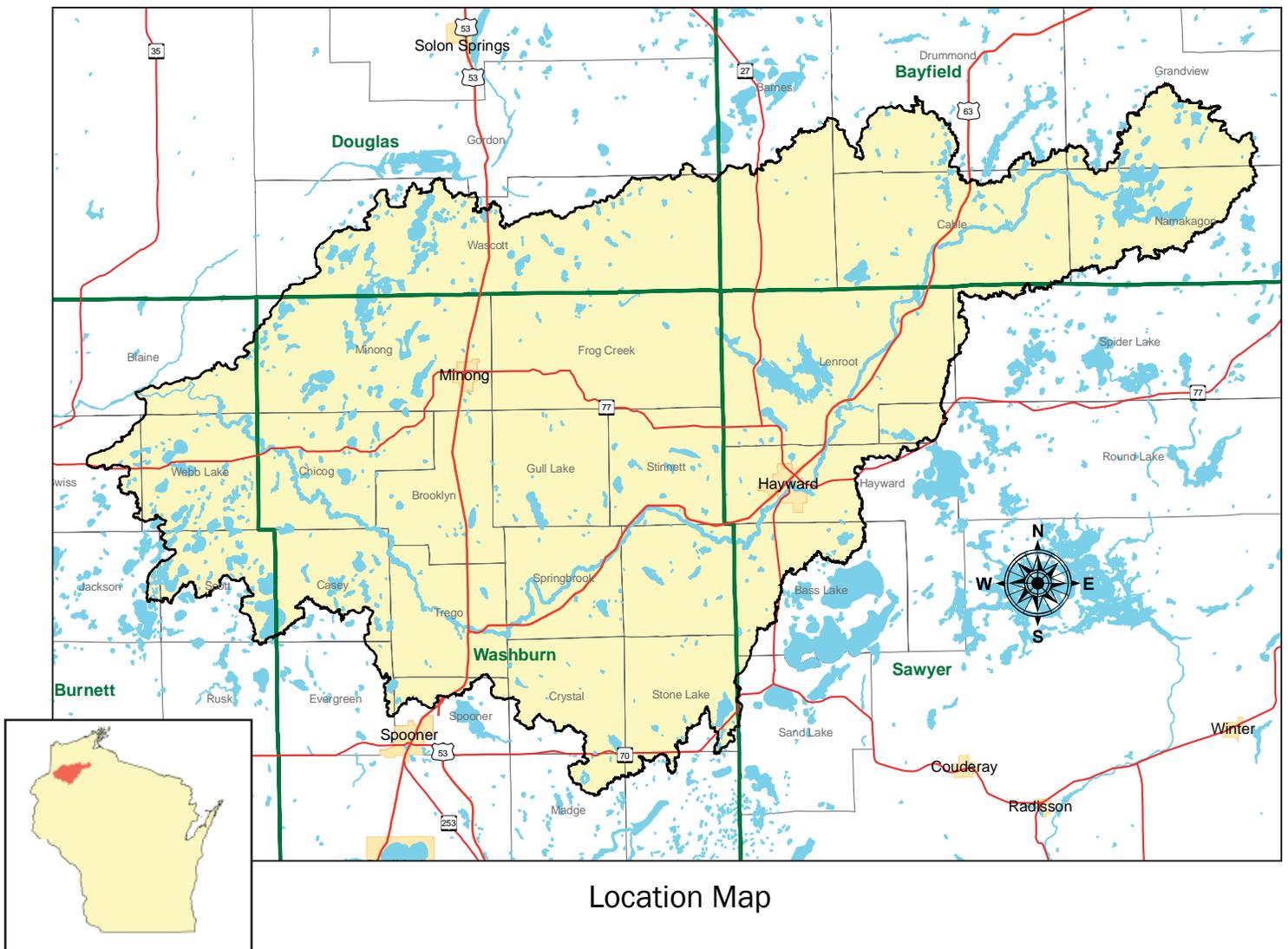
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## INTRODUCTION <sup>1</sup>.

The Namekagon Watershed’s headwaters in northwest Wisconsin begin in southwest Bayfield County, just south of the drainage divide between Lake Superior and Mississippi River system. The Namekagon River, 98 miles in length, begins at the outlet of 3,227 acre Lake Namekagon, making its way southwest to Trego and then turning northwest until it enters the St. Croix River a few miles upstream of Riverside in northeast Burnett County. The watershed also takes in the very northwest corner of Sawyer County, southeast Douglas County and the northern third of Washburn County.

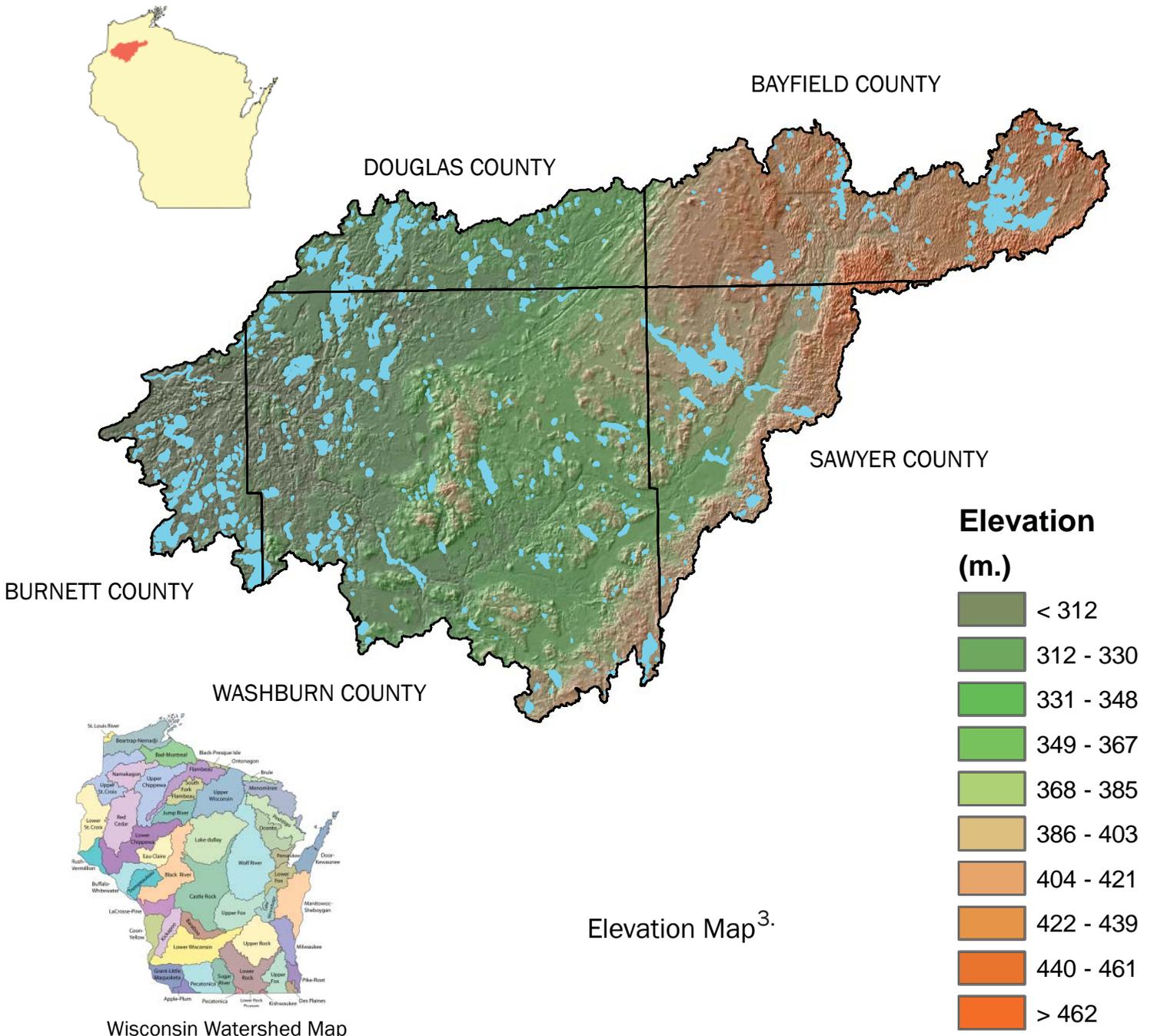
The entire Namekagon River and Lake Namekagon are classified as Outstanding Resource Waters by the Wisconsin Department of Natural Resources (WDNR). This is due in large part to the land use of the watershed, which is over 65% forestland and nearly 15% wetland in area. Much of these areas are county forest lands or part of the Chequamegon National Forest. The Totagatic River, in the northern part of the watershed, is a major tributary to the Namekagon River. There are numerous lakes in the watershed, with Lake Namekagon, Nelson Lake, and the Minong Flowage among the largest. Farms are typically small beef, dairy, or horse operations with corn and hay being the primary crops. There is also a small amount of acreage in cash grain rotations.

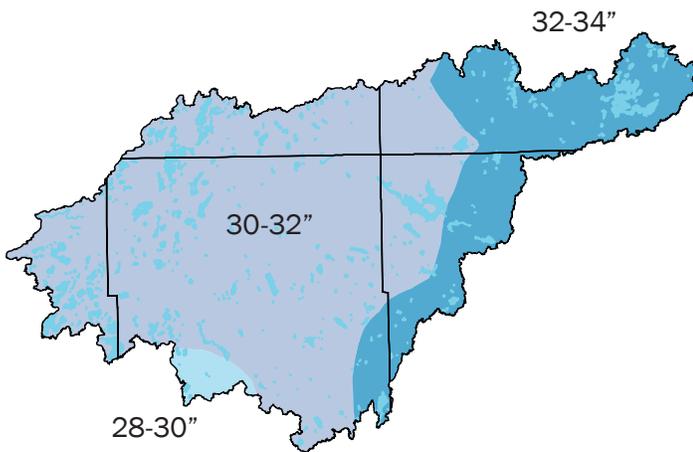
The largest population centers are Hayward (pop. 2,293) and Minong (pop. 578) and the local economy is heavily dependent on the timber industry and tourism. Snowmobiling, hunting, fishing, and other water sports are very popular in the area. The number of seasonal and year-round residences on the area’s lakes and rivers continues to increase.



Acreeage in the Namekagon Watershed

County	County Acres	Acres in HUC	% of HUC in County	% of County in HUC
Sawyer	863,619	95,889	15	11.1
Washburn	545,856	321,893	49	59.0
Burnett	563,149	48,179	7	8.6
Bayfield	967,023	121,228	19	12.5
Douglas	859,075	64,332	10	7.5





Average Annual Precipitation Map (inches)<sup>4</sup>.

**COMMON RESOURCE AREAS<sup>2</sup>**

Common Resource Area delineations are defined as a geographical areas where resource concerns, problems and treatment needs are similar. Common Resource areas are a subdivision of an existing Major Land Resource Area (MLRA). Landscape conditions, soil, climate and human considerations are used to determine the boundary of Common Resource Areas.

**90 A.1 LOAMY TILL GROUND MORAINES AND DRUMLINS**

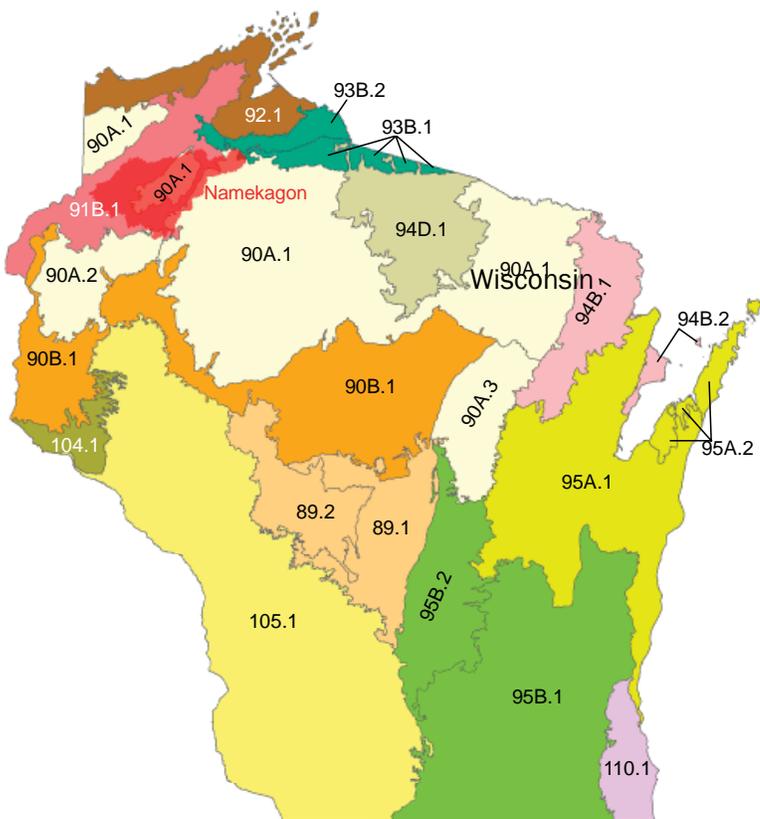
Nearly level to moderately steep, loamy, sandy, and organic soils. Mixed deciduous and coniferous forest is the primary land use with some glacial lakes and wetlands. Scattered cropland and grazing land are present. Cropland productivity is limited by the short length of the growing season. Primary resource concerns are timber management, wildlife habitat, recreation and agricultural forage production. Surface water quality is a localized concern.

**90.A.2. NORTHWEST WISCONSIN GROUND MORAINE**

Gently and strongly sloping loamy soils underlain by dense acid loamy till. Cropland, grazing land and mixed deciduous and coniferous forest are the predominant land uses. Dairy and beef livestock production are the predominant agricultural enterprises with some cash grain. Lakes and wetlands are common. Primary resource concerns are soil erosion and nutrient management on cropland, surface and groundwater quality, shore land habitat management, and the demand for recreational properties on the lakes.

**91 B.1 ANOKA SAND PLAIN AND NORTHWEST OUTWASH**

Gently sloping to moderately steep outwash plains and moraines. Soils range from excessively drained sandy soils to very poorly drained organic soils. Mostly deciduous and coniferous forestland, pasture with more cropland in the western part. The primary resource concerns are forestland productivity, erosion control on cropland and timbered areas during harvest, upland wildlife habitat management, and recreation.

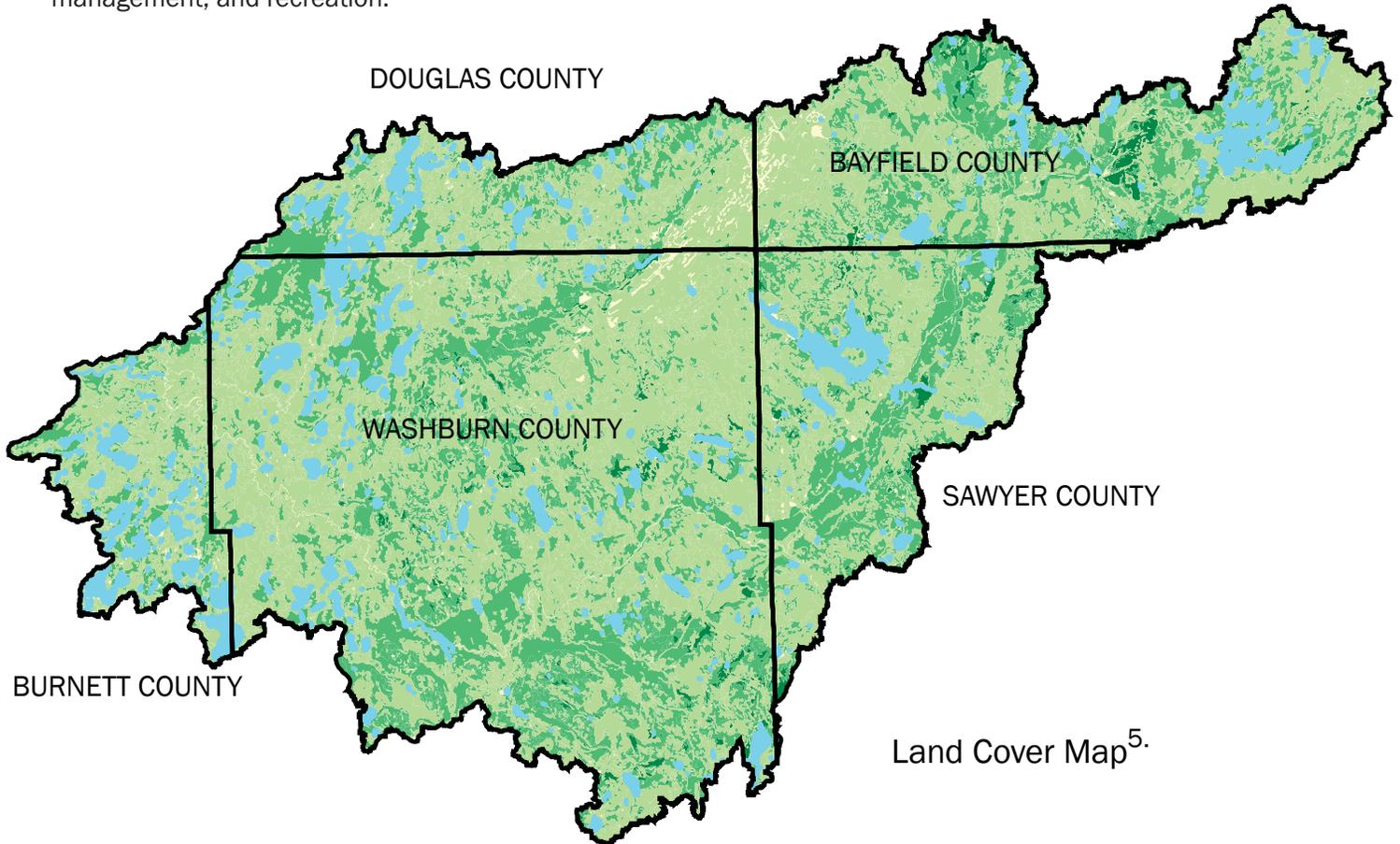


Common Resource Area Map

**93 B.1 WINGAR AND MORSE MORAINES**

Gently sloping loamy and organic soils over acid sandy loam till and outwash. Mostly deciduous and coniferous forest, with common lakes and wetlands. Dominant land use is forestland and recreation. The primary resource concerns are soil erosion, groundwater quality, surface water quality, forestland productivity and wildlife habitat.

93B.2 Steep, loamy, moderately well drained soils over hard bedrock, and gently sloping, well drained, loamy soils on outwash plains. Mostly deciduous and coniferous forest with scattered wetlands and grazing land. Primary resource concerns are forestland productivity, erosion during timber harvest, upland wildlife habitat management, and recreation.



	Acres	Percent		Acres	Percent
 Pasture Hay	24,370	3.7	 Low Intensity Residential	450	0.1
 Deciduous Forest	357,635	54.9	 High Intensity Residential	158	0
 Row Crops	31,793	4.9	 Evergreen Forest	54,721	8.4
 Open Water	35,396	5.4	 Mixed Forest	75,076	11.5
 Woody Wetlands	44,899	6.9	 Transitional	4,971	0.8
 Small Grains	0	0	 Urban / Recreational Grasses	541	0.1
 Emergent Herbaceous Wetlands	16,574	2.5	 Quarries / Strip Mines, Gravel Pits	9	0
 Commercial/Industrial / Transport	1,652	0.3	 Bare Rock / Sand / Clay	0	0
 Grasslands / Herbaceous	3,273	0.5			
			Total Acres	651,518	100

ASSESSMENT OF WATERS <sup>6.</sup>

Section 303(d) of the Clean Water Act states that water bodies that are not meeting their designated uses (fishing, swimming), due to pollutants, must be placed on this list. The 303(d) impaired Waters List is updated every two years. Wisconsin is required to develop TMDLs, Total Maximum Daily Loads, for water bodies on this list. Exceptional Resource Waters (ERW) provide valuable fisheries, hydrologically or geologically unique features, outstanding recreational opportunities, unique environmental settings, and which are not significantly impacted by human activities may be classified as exceptional resource waters. Outstanding Resource waters (ORW) and ERW differ in that ORW do not have an associated point source discharge, where ERWs do.

Listed Waters Map

Listed Waters

- 303(d) Listed
- Exceptional Resource Waters
- Outstanding Resource Waters
- Sub Watersheds
- Streams / Rivers



1. Pacwawong Lake
2. McDermott Brook
3. Osgood Lake
4. Phipps Flowage
5. Mosquito Brook
6. Namekagon R Trib S13 T41N R9W
7. Hatchery Creek
8. Bean Brook
9. Little Bean Brook
10. Godfrey Creek
11. S Fork Bean Brook
12. Nam-Trib T41N R13W S18

For information on specific subwatersheds, 303(d) or Exceptional/Outstanding Resource Waters (ERW/ORW):  
<http://dnr.wi.gov/org/water/wm/wqs/303d/faqs.html> and  
<http://dnr.wi.gov/org/gmu/gpspl/gpbasin/>

### 303-D LISTED WATERS

303(d) Waters	Mercury	PCBs
Gilmore Lake	x	
Minong Flowage	x	
Red Lake	x	
Silver Lake	x	
Spring Lake T40 R11W S25	x	

### SOILS<sup>7</sup>.

The soils in this watershed have formed on a variety of different landforms and from a variety of different parent materials.

The southeastern part of the watershed is an undulating to hilly moraine of the Copper Falls Formation (Superior Lobe) deposited during the Late Wisconsinan Glaciation. The soils formed in reddish-brown densic to non-densic non-calcareous loamy sand till. On the lower slopes of this moraine the soils tend to have a mantle of silty windblown material (loess), range from moderately well drained to somewhat poorly drained, and typically have perched water tables. They have moderate to slow permeability and moderate available water capacity. On the steeper slopes the soils tend to have a mantle of sandy loam alluvium or mudflow sediments and are well drained or moderately well drained. They have moderately rapid to moderate permeability and low to moderate available water capacity. Intermingled among the till are small areas of soils that formed in loamy alluvium over acid sandy or gravelly outwash, or formed entirely in outwash, and have surface textures that include loamy sand and sandy loam. These outwash soils range from excessively drained to somewhat poorly drained and typically have apparent water tables. They have very rapid to moderate permeability and low to moderate available water capacity. The narrow drainageways and small depressions scattered throughout the moraine have soils that formed in either loamy till or outwash. The larger swamps and broad drainageways tend to have soils that formed in non-acidic organic deposits (muck). Significant exposures of igneous and metamorphic bedrock are very common along the western edge of the moraines.

The northwestern part of the watershed is an outwash plain consisting of broad plains, pitted outwash plains, and fans. The soils formed in acid sandy outwash and typically have sand surface textures. These soils are generally excessively drained, but range to somewhat poorly drained and typically have apparent water tables. They have rapid to very rapid permeability and low available water capacity. Wetlands that range from small closed depressions to broad swamps are found throughout the area and have very poorly drained soils that formed in acid peat or non-acid muck. The major river valleys have poorly to very poorly drained soils that formed in sandy alluvium or non-acid muck and include areas subject to periodic flooding.

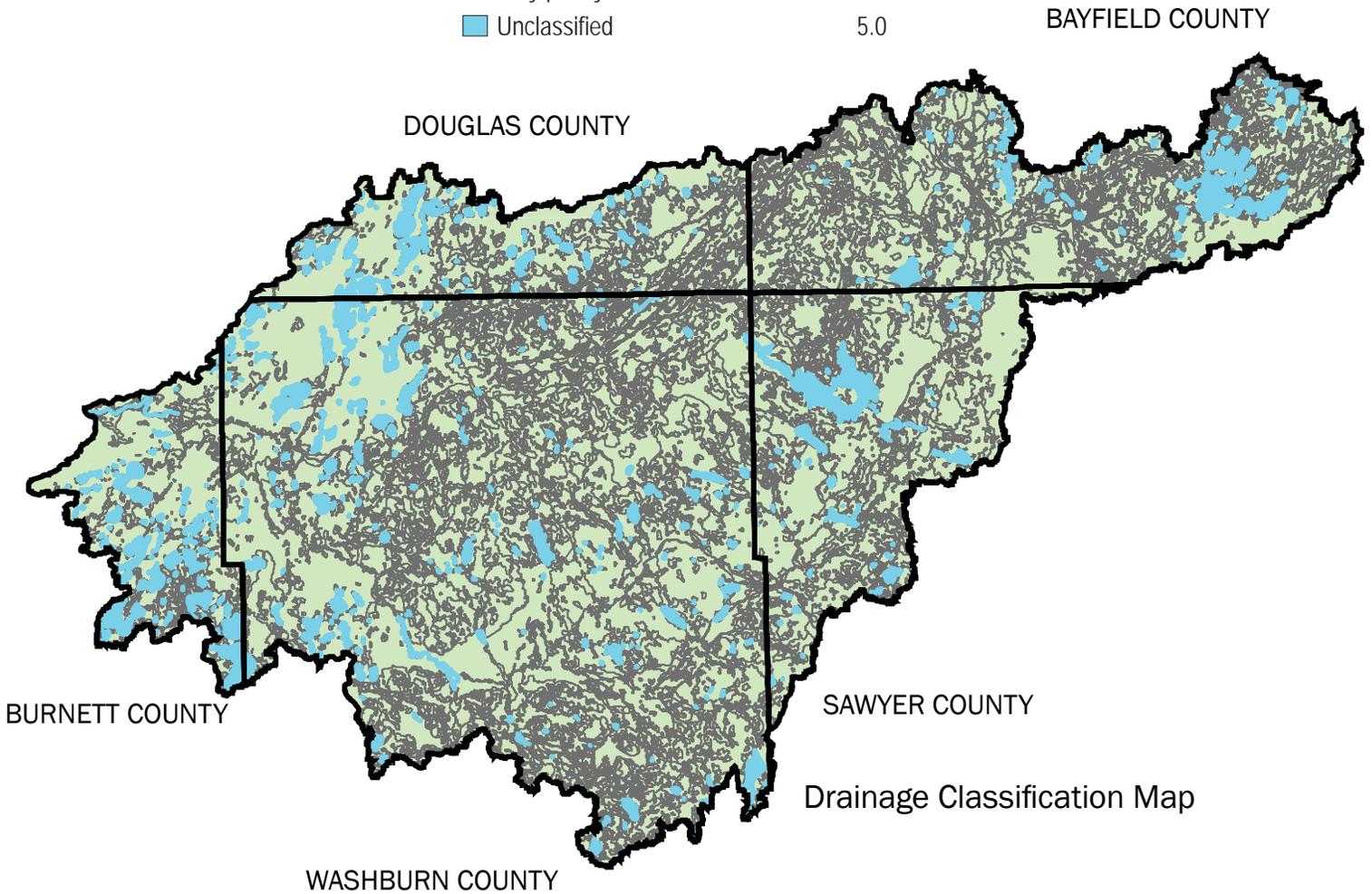


### DRAINAGE CLASSIFICATION

Drainage class (natural) refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the “Soil Survey Manual.”



Drainage Classification	% Area
Excessively drained	23.8
Somewhat excessively drained	8.9
Well drained	11.1
Moderately well drained	13.7
Somewhat poorly drained	3.0
Poorly drained	0.9
Very poorly drained	11.9
Unclassified	5.0



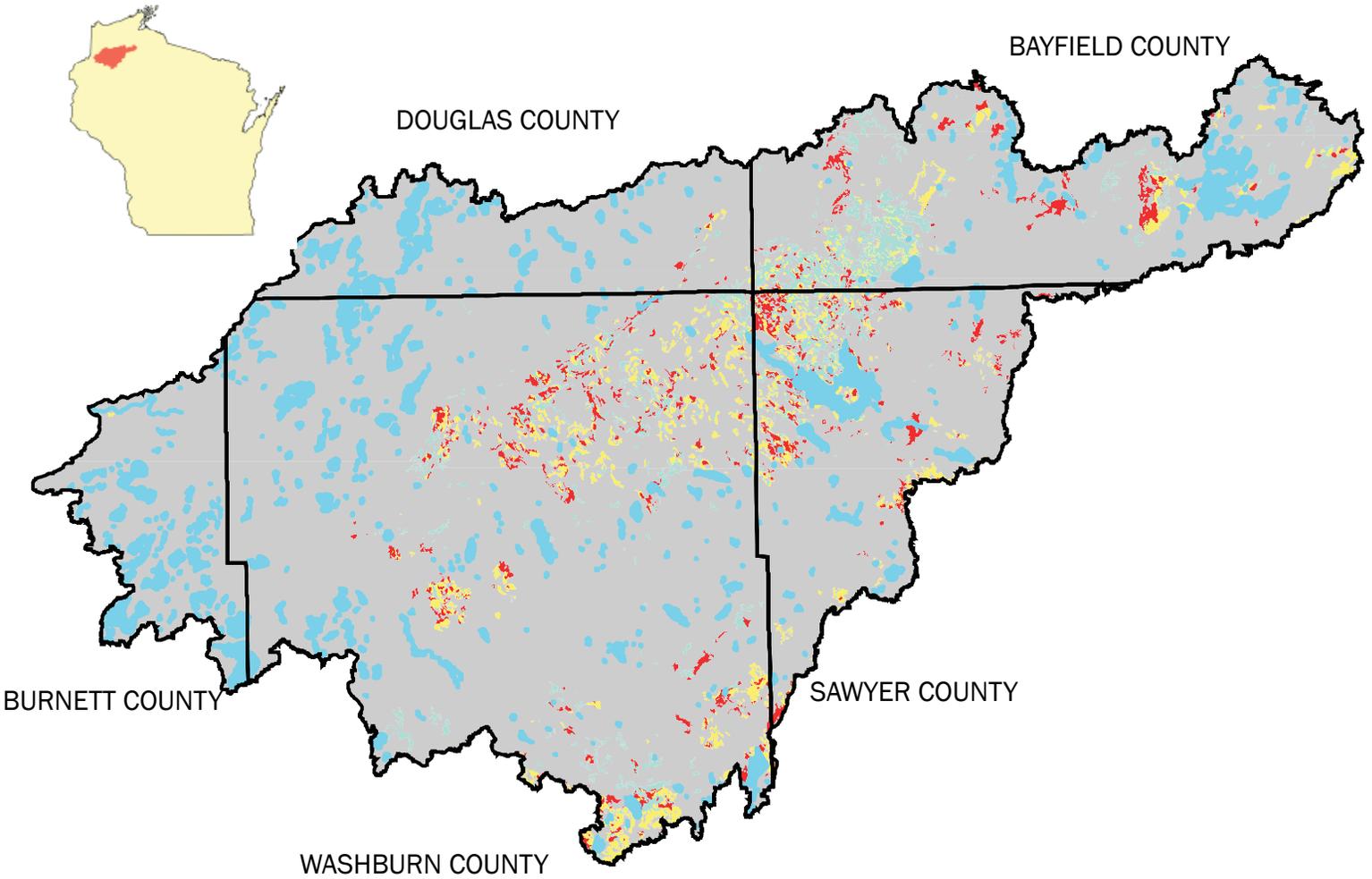
Drainage Classification Map

Visit the online Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov> for official and current USDA soil information as viewable maps and tables.

Visit the Soil Data Mart at <http://soildatamart.usda.gov> to download SSURGO certified soil tabular and spatial data.

### FARMLAND CLASSIFICATION

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. Farmland classification identifies the location and extent of the most suitable land for producing food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the Federal Register, Vol. 43, No 21, January 31, 1978.



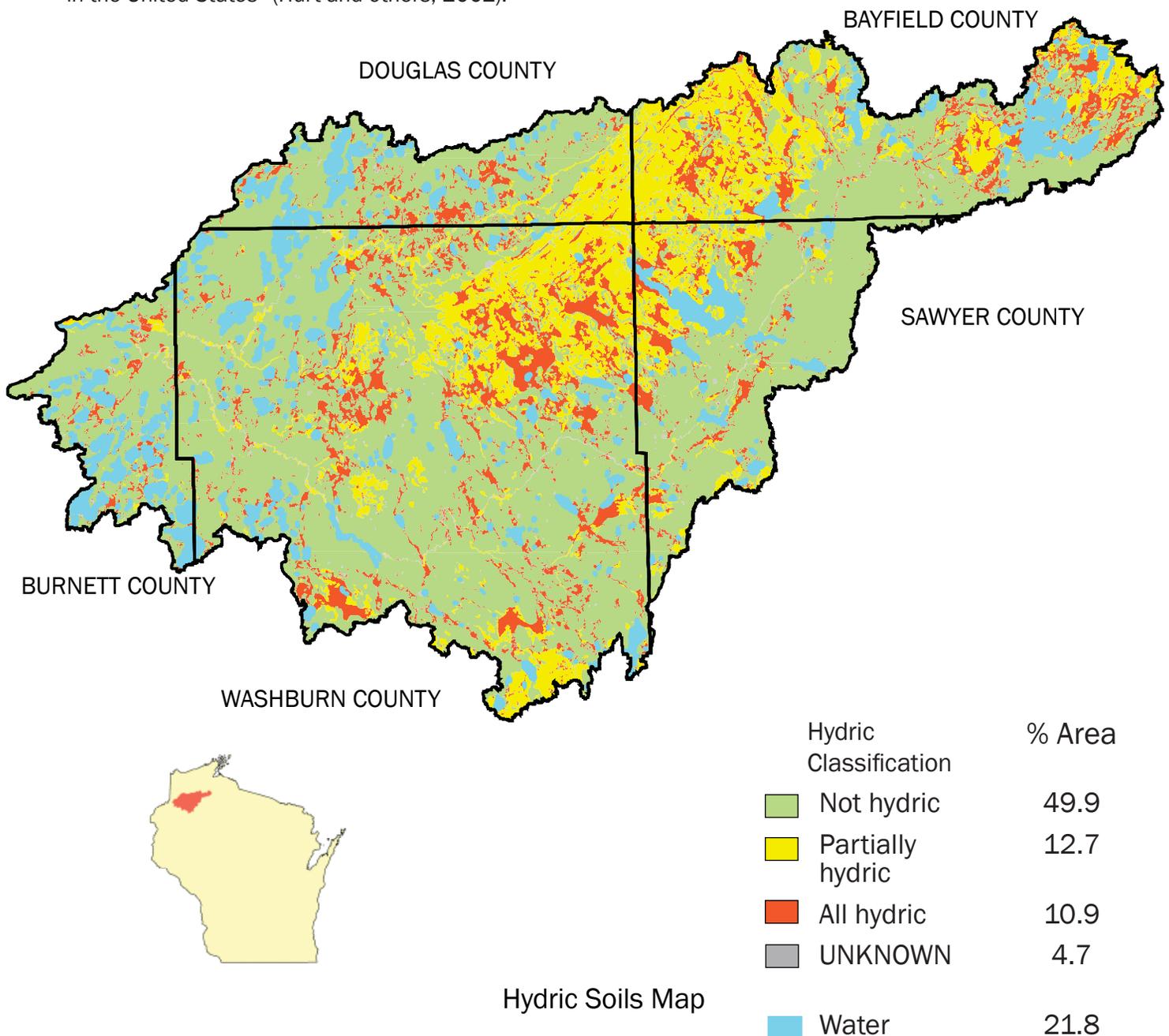
Farmland Classification Map

	Acres	Percent
 All areas are prime farmland	17,327	2.1
 Farmland of statewide importance	22,093	2.7
 Prime farmland if drained	17,992	2.2
 Not Prime farmland	594,094	71.3
 Water		21.7

### HYDRIC SOILS

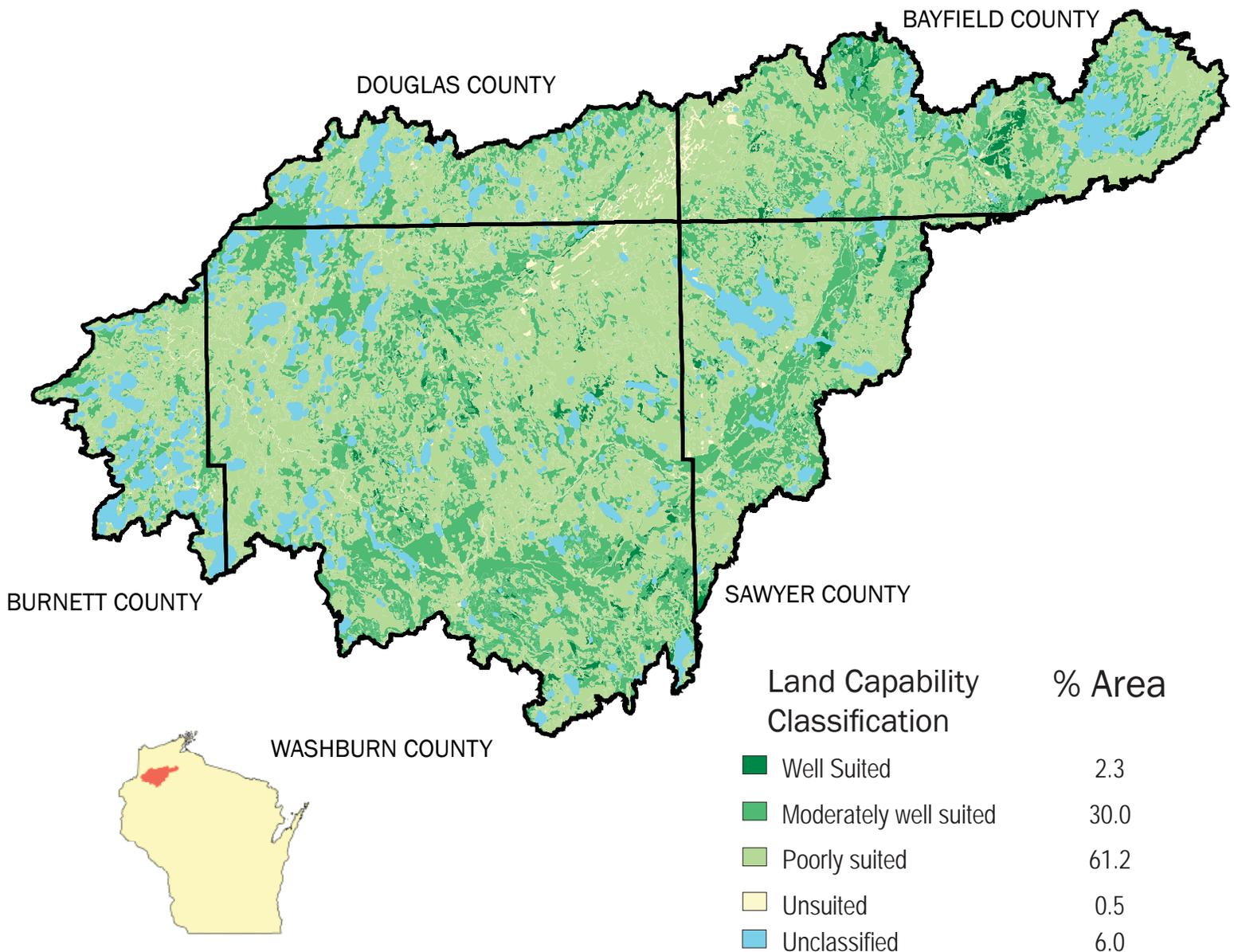
This rating provides an indication of the proportion of the map unit that meets criteria for hydric soils. Map units that are dominantly made up of hydric soils may have small areas, or inclusions of non-hydric soils in the higher positions on the landform, and map units dominantly made up of non-hydric soils may have inclusions of hydric soils in the lower positions on the landform.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation. If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make on site determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 2002).



### LAND CAPABILITY CLASSIFICATION

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive land forming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.



Land Capability Classification Map

## RESOURCE CONCERNS

The continued development pressure on area lakes and rivers is a major concern for water quality and aquatic habitat. The trend toward smaller parcels of privately-owned land is resulting in forest and habitat fragmentation. Aquatic and terrestrial invasive species are also a concern. Property taxation based on land use has led to increased pasturing of forestland in some areas in order to lower tax bills. This is a concern for forest regeneration and health, soil quality, and potentially water quality.

## PRS AND OTHER DATA<sup>8</sup>.

The following table is a product of the NRCS Performance Results System (PRS) and reflects progress made over the past several years on several key areas of conservation. The PRS provides support for reporting the development and delivery of conservation programs, analyzing and reporting progress, and management applications by NRCS and conservation partners. The public can generate additional reports by visiting the following link: <http://ias.sc.egov.usda.gov/prsreport2006/>

### PRS PERFORMANCE MEASURES

PRS Performance Measures	FY99	FY00	FY01	FY02	FY03	FY04	FY05	TOTAL
Total Conservation Systems Planned (acres)	12	150	165	3	184	N/A	536	1,050
Total Conservation Systems Applied (acres)	6	1,190	87	3	71	N/A	628	1,985
<b>Conservation Practices</b>								
Total Waste Management (313) (numbers)	0	0	0	0	0	0	0	0
Riparian Forest Buffers (391) (acres)	0	65	20	7	9	1	0	102
Erosion Control Total Soil Saved (tons/year)	0	78	0	1	234	N/A	N/A	313
Total Nutrient Management (590) (Acres)	0	0	0	0	0	0	257	257
Pest Management Systems Applied (595A) (Acres)	0	0	0	0	0	0	0	0
Prescribed Grazing 528a (acres)	0	0	0	0	0	33	18	51
Tree & Shrub Establishment (612) (acres)	0	0	210	48	47	0	0	305
Residue Management (329A-C) (acres)	434	96	516	0	0	0	371	1,417
Total Wildlife Habitat (644 - 645) (acres)	12	1,194	0	0	0	266	0	1,472
Total Wetlands Created, Restored, or Enhanced (acres)	0	0	54	0	0	0	0	54
<b>Acres enrolled in Farmbill Programs</b>								
Conservation Reserve Program	0	136	0	0	0	N/A	0	136
Wetlands Reserve Program	0	0	0	0	0	N/A	0	0
Environmental Quality Incentives Program	0	0	0	0	0	N/A	180	180
Wildlife Habitat Incentive Program	6	1,040	54	0	0	N/A	0	1,100
Farmland Protection Program	0	0	0	0	0	N/A	0	0

CENSUS AND SOCIAL DATA (RELEVANT)<sup>9</sup>.

There are 1,584 farms in the watershed, covering a total of 268,570 acres. Average farm size in the watershed is 170 acres compared to a statewide average of 201 acres in Wisconsin. Please refer to the tables below for more detailed information or visit the web site of the Wisconsin Office of the National Agricultural Statistics Service at: [http://www.nass.usda.gov/Statistics\\_by\\_State/Wisconsin/index.asp](http://www.nass.usda.gov/Statistics_by_State/Wisconsin/index.asp)

2002 Ag Census Data		Bayfield	Burnett	Douglas	Sawyer	Washburn	Total
Farms by Size	Farms (number)	59	39	29	26	278	430
	Land in farms (acres)	13981	8451	6364	6000	62205	97,002
	Total cropland (acres)	7486	4468	2944	3190	27919	46,007
	Irrigated land (acres)	12	15	23	45	930	1,025
	Principal operator by primary occupation - Farming (number)	27	18	14	15	149	223
	Farms by size - 1 to 10 acres	1	0	0	1	8	10
	Farms by size - 11 to 49 acres	9	6	4	3	37	60
	Farms by size - 50 to 179 acres	25	18	15	12	128	197
	Farms by size - 180 to 499 acres	17	11	7	7	80	123
	Farms by size - 500 to 999 acres	5	3	2	2	18	30
	Farms by size - 1,000 acres or more	2	1	1	1	7	11
Livestock and Poultry	Livestock and poultry - Cattle and calves inventory (farms)	27	20	15	13	139	213
	Livestock and poultry - Cattle and calves inventory - Beef cows (farms)	16	11	12	8	70	117
	Livestock and poultry - Cattle and calves inventory - Milk cows (farms)	6	6	1	4	29	46
	Livestock and poultry - Hogs and pigs inventory (farms)	2	1	1	1	6	11
	Livestock and poultry - Sheep and lambs inventory (farms)	4	2	1	1	7	14
	Livestock and poultry - Layers 20 weeks old and older inventory (farms)	3	4	2	1	21	31
	Livestock and poultry - Broilers and other meat-type chickens sold (farms)	1	1	1	1	2	6
Selected Crops Harvested	Selected crops harvested - Corn for grain (acres)	262	1109	0	420	5114	6,905
	Selected crops harvested - Corn for silage or greenchop (acres)	110	169	36	154	1083	1,552
	Selected crops harvested - Wheat for grain, all (acres)	32	81	0	0	202	315
	Selected crops harvested - Wheat for grain, all - Winter wheat for grain (acres)	32	68	0	0	0	100
	Selected crops harvested - Wheat for grain, all - Spring wheat for grain (acres)	0	14	0	0	0	14
	Selected crops harvested - Oats for grain (acres)	184	62	16	53	300	614
	Selected crops harvested - Barley for grain (acres)	77	2	0	0	50	128
	Selected crops harvested - Soybeans for beans (acres)	24	376	0	42	1024	1,466
	Selected crops harvested - Forage - land used for all hay and all haylage, grass silage, and greenchop (see text) (acres)	4333	1575	1840	1593	12612	21,952
	Selected crops harvested - Vegetables harvested for sale (see text) (acres)	1	60	1	2	472	535
	Selected crops harvested - Land in orchards (acres)	47	5	0	0	11	63

POPULATION ETHNICITY <sup>10.</sup>

Total Population = 13,390  
 Urban population = 62  
 Rural Population = 13,329  
 White alone = 12,670  
 Hispanic or Latino = 107  
 Two or more races = 154  
 Black or African American alone = 19  
 Some other race alone = 44  
 American Indian and Alaska Native alone = 461  
 Asian Alone = 38  
 Native Hawaiian and Other Pacific Islander alone = 4

URBAN POPULATION <sup>11.</sup>

Name	1990	2000	2005	Median Income*
Hayward	1,897	2,129	2,293	28,421
Minong	521	531	578	25,341



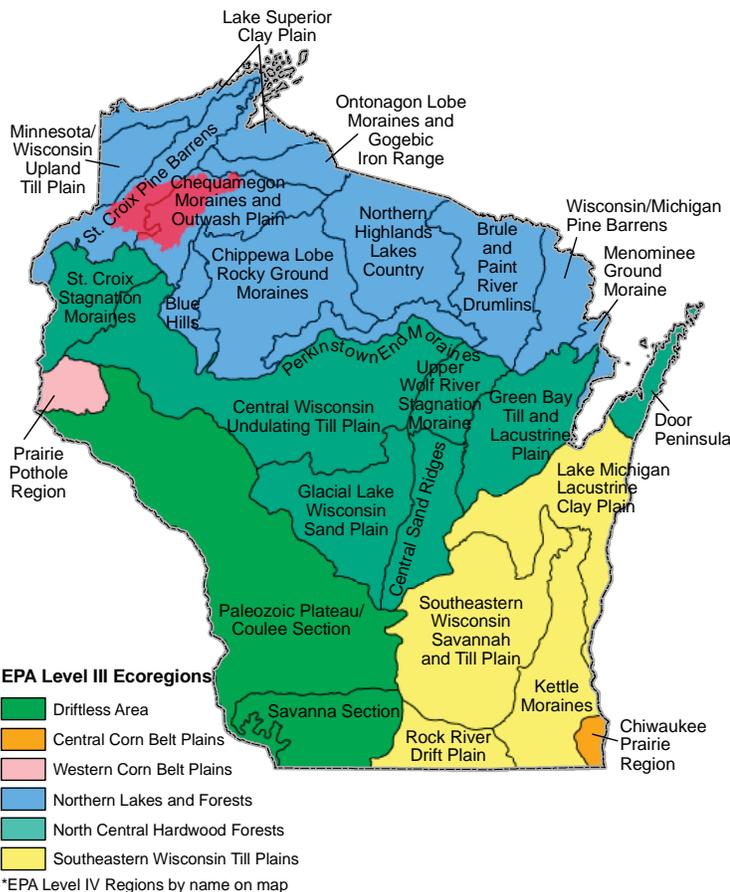
ECOLOGICAL LANDSCAPES <sup>12.</sup>  
GENERAL DESCRIPTIONS

St. Croix Pine Barrens

The St. Croix Pine Barrens ecoregion is characterized by jack pine, concentrations of red and white pine forests and barrens, and well-drained, pink sandy soils. This ecoregion has a greater concentration of lakes, a higher percentage of clear lakes, and lakes with a lower trophic state than in surrounding ecoregions. The sandy soils and pine barren vegetation distinguishes this ecoregion from the silty lake plain and boreal forests of the Lake Superior Clay Plain and the till plain and more deciduous forest mosaic of Minnesota/Wisconsin Upland Till Plain.

Chequamegon Moraine and Outwash Plain

Irregular plains and stagnation moraines, broad areas of hummocky topography, pitted glacial outwash, numerous kettle lakes, and abundant swamps and bogs characterize the Chequamegon Moraine and Outwash Plain ecoregion. This region has more poorly developed drainage than ecoregions to the west. The soils are coarse, acid, loamy, and sandy-loam mixed--different from the pink sandy soils of the St. Croix Pine Barrens and the more rocky and silty soils the Chippewa Lobe Rocky Ground Moraines.



## WATERSHED ASSESSMENT

To assess a watershed's agricultural nonpoint pollution potential, a model was used to generate a watershed assessment score relative to other 8-digit watersheds in Wisconsin. Factors used in the model include acres of cropland, acres of highly erodible land (HEL), and the number of animal units in the watershed. Scores ranged from 0.0 (lowest conservation need) to 24.2 (highest conservation need). The scores may be useful in determining funding allocations on a watershed basis for agricultural nonpoint pollution control initiatives. The model does not attempt to measure pollution levels and does not reflect pollution potential from point sources of pollution or other nonpoint pollution sources beyond the above criteria.

The watershed assessment score for the Namekagon Watershed is 1.3

## WATERSHED PROJECTS, STUDIES, MONITORING, ETC.

There have not been any Wisconsin Department of Natural Resources Priority Watershed projects in the Namekagon watershed.

The WDNR conducts water quality monitoring in the watershed each year. The WDNR Surface Water Data Viewer (SWDV) is an online interactive mapping tool with multiple water-related datasets. (<http://dnrmapping.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer>)

## PARTNER GROUPS

- Namakagon Lake Association <http://nlaonline.org/>
- Door County Environmental Council <http://www.dcec-wi.org/>
- River Alliance of Wisconsin <http://www.wisconsinrivers.org/>
- Trout Unlimited- Wild Rivers Chapter <http://www.wisconsintrout.org/chapters.htm>
- USDA Farm Service Agency <http://www.fsa.usda.gov/wi/news/default.asp>,
- US Fish and Wildlife Service <http://www.fws.gov/midwest>
- USDA-Natural Resources Conservation Service <http://www.wi.nrcs.usda.gov>
- University of Wisconsin Cooperative Extension <http://www.uwex.edu/ces/> and <http://basineducation.uwex.edu>
- Wisconsin Department of Agriculture, Trade, and Consumer Protection <http://www.datcp.state.wi.us>
- Wisconsin Department of Natural Resources <http://dnr.wi.gov/>
- Wisconsin Land and Water Conservation Association (County Land Conservation Committee organization) [www.wlwca.org](http://www.wlwca.org)
- Land and Water Conservation Directory <http://datcp.state.wi.us/arm/agriculture/land-water/conservation/pdf/ar-pub-119-2007.pdf>

## FOOTNOTES/BIBLIOGRAPHY

All data is provided “as is.” There are no warranties, express or implied, including the warranty of fitness for a particular purpose, accompanying this document. Use for general planning purposes only.

1. Introduction and the description of resource concerns of the Namekagon Watershed 1. “The State of the St. Croix Basin” March 2002, WDNR <http://www.dnr.state.wi.us/org/gmu/>
2. Common Resource Area (CRA) Map delineations are defined as geographical areas where resource concerns, problems, or treatment needs are similar. It is considered a subdivision of an existing Major Land Resource Area (MLRA) map delineation or polygon. Landscape conditions, soil, climate, human considerations, and other natural resource information are used to determine the geographic boundaries of a Common Resource Area. Online linkage: <http://soils.usda.gov/survey/geography/cra.html>.
3. The relief map was created using the National Elevation Dataset (NED) 1 arc second, approximately 30 meters, digital elevation model (DEM) raster product assembled by the U.S. Geological Survey (USGS). A hillshade grid was derived from the 30m DEM and draped over the DEM to symbolize the map and create a 3-D effect. The data was downloaded from the NRCS Geospatial Data Gateway <http://datagateway.nrcs.usda.gov/>. For more information about NED visit <http://ned.usgs.gov/>.
4. Average Annual Precipitation data was originated by Chris Daly of Oregon State University and George Taylor of the Oregon Climate Service at Oregon State University and published by the Water and Climate Center of the Natural Resources Conservation Service in 1998. Annual precipitation data was derived from the climatological period of 1961-1990. Parameter-elevation Regressions on Independent Slopes Model (PRISM) derived raster data is the underlying data set from which the polygons and vectors were created. For more information about PRISM visit [http://www.ocs.orst.edu/prism/prism\\_new.html](http://www.ocs.orst.edu/prism/prism_new.html). Precipitation data was downloaded from the NRCS Geospatial Data Gateway <http://datagateway.nrcs.usda.gov/>.
- 5 The Land Use/Land Cover data was generated from the National Land Cover Dataset (NLCD) compiled from Landsat satellite TM imagery (circa 1992) with a spatial resolution of 30 meters and supplemented by various ancillary data (where available). The data was assembled by the USGS and published in June of 1999. The analysis and interpretation of the satellite imagery was conducted using very large, sometimes multi-state image mosaics. For more information about NLCD visit <http://edcwww.cr.usgs.gov/programs/lccp/nationallandcover.html>. The data was downloaded from the NRCS Geospatial Data Gateway <http://datagateway.nrcs.usda.gov/>.
6. 303(d) listed streams were derived from the Water Quality Standards Section of the Wisconsin Department of Natural Resources (WDNR) website: [http://dnr.wi.gov/org/water/wm/wqs/303d/Lists303d/Approved\\_2004\\_303\(d\)\\_list.pdf](http://dnr.wi.gov/org/water/wm/wqs/303d/Lists303d/Approved_2004_303(d)_list.pdf). For more information about the individual sub-watersheds visit <http://dnr.wi.gov/org/gmu/gpsp/gpbasin/index.htm>. For a list and explanation of Outstanding and Exceptional Resource Waters visit: <http://dnr.wi.gov/org/water/wm/wqs/orwerw/>.
7. Soil Survey Geographic Database (SSURGO) tabular and spatial data were downloaded for the following surveys:
  - Bayfield Co., WI (WI007) Published 20060929
  - Burnett Co., WI (WI013) Published 20060921
  - Douglas Co. WI (WI031) Published 20060921
  - Sawyer Co. WI (WI113) Published 20060921
  - Washburn Co. WI (WI129) Published 20060120

Metadata and SSURGO data for the aforementioned surveys were downloaded from the NRCS Soil Data Mart at <http://soildatamart.nrcs.usda.gov>. Component and layer tables from the tabular data were linked to the spatial data to derive the soil classifications found in this section. Visit the online Web Soil Survey at <http://websoilsurvey.nrcs.usda.gov> for official and current USDA soil information as viewable maps and tables.

8. Performance Results System (PRS) data was extracted from the PRS homepage by year, conservation systems and practices and Hydrologic Unit Code (HUC) level. HUC level reporting was not available where N/A is listed. For more information on these and other performance reports visit <http://ias.sc.egov.usda.gov/prshome/>.

9. Ag Census data were downloaded from the National Agricultural Statistics Service (NASS) Website and the data were adjusted by percent of HUC in the county. For more information on individual census queries visit the NASS website at <http://www.nass.usda.gov/>.

10. Population ethnicity data were extracted from the Census 2000 Summary File 3 compiled by the U.S. Census Bureau. The data were adjusted by Block Group percentage in the HUC. Population items were selected from the SF30001 table. For more information on census data and definitions visit <http://www.census.gov/Press-Release/www/2002/sumfile3.html>.

11. Urban population and median household income data were derived from the American FactFinder assembled by the U.S. Census Bureau. American FactFinder is a quick source for population, housing, income and geographic data. For other census items and trends visit [http://factfinder.census.gov/home/saff/main.html?\\_lan](http://factfinder.census.gov/home/saff/main.html?_lan)

12. Level III and IV Ecoregions Regions of Wisconsin map and descriptions were derived from electronic coverages available from Wisconsin DNR, Bureau of Integrated Science Services Branch in cooperation with the U.S Environmental Protection Agency.

For more information visit [ftp://ftp.epa.gov/wed/ecoregions/wi/wi\\_eco\\_pg.pdf](ftp://ftp.epa.gov/wed/ecoregions/wi/wi_eco_pg.pdf)