

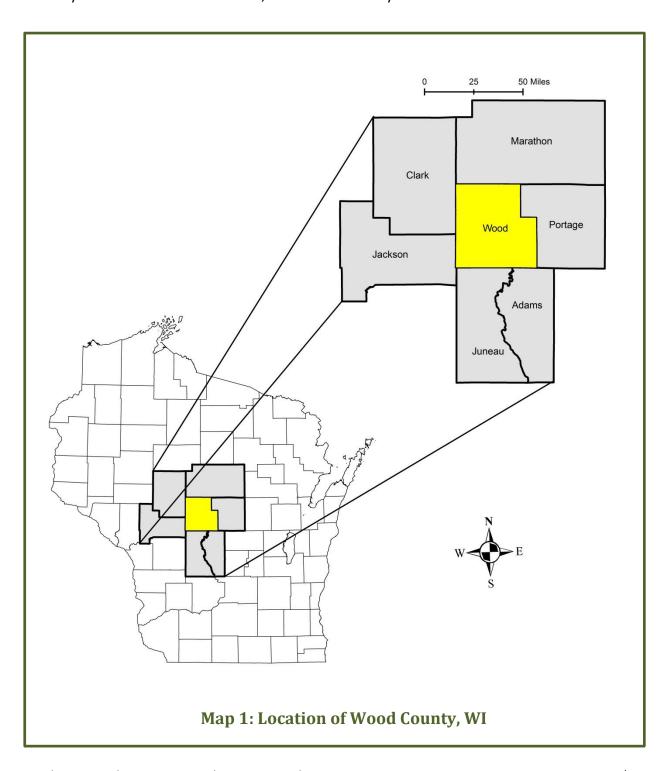
# **IV. Description of Wood County**

It is important to understand both the physical environment and social characteristics of Wood County and its people to effectively plan for future recreation system improvements. This section presents important community facts and insights into the past and present, to conceptualize future recreational needs and potential. The information presented plays a critical role as Wood County evolves to meet the ever-changing needs of citizens.



#### Location

Wood County is located in the geographic center of Wisconsin (Map 1). The total area of the county is approximately 517,846 acres, or about 809 square miles. The county boundary measures approximately 30 miles from north to south and 29 miles from east to west. The county is bordered on the north by Marathon County, on the east by Portage County, on the south by Adams and Juneau counties, and on the west by Jackson and Clark counties.



## History

In 1856, Wood County was detached from Portage County by legislation introduced by Joseph Wood, an early pioneer of the area. The county was named "Wood" after Joseph Wood and it also indicated the general character of the area. The first meeting of the board of supervisors was held on October 8, 1856.



Wood County Courthouse

When Wood County was formed, the Town of Grand Rapids covered all its land area. New towns were created from 1856 to the early 1900's. They were: Rudolph (1856); Saratoga and Seneca (1857); Dexter (1859); Lincoln (1861); Sigel (1863); Remington (1869); Wood, Port Edwards and Auburndale (1874); Marshfield (1875); Rock (1878); Richfield (1881); Milladore (1882); Sherry and Hansen (1885); Cary, Arpin and Hiles (1901); and finally Cranmoor and Cameron (1903).

The cities and villages of Wood County developed as the trade, service and industrial centers, providing the nucleus for growth in Wood County. The origin and development of these communities is a very important part of Wood County's history. The four cities and their years of incorporation are: Wisconsin Rapids (1900 - consolidation of Grand Rapids and Centralia); Marshfield (1883); Nekoosa (1926); and Pittsville (1887). The eight villages and their years of incorporation are: Arpin (1978); Auburndale (1881); Biron (1910); Hewitt (1973); Milladore (1933); Port Edwards (1902); Rudolph (1960); and Vesper (1948).

# **Wood County Today**

Today, Wood County is home to an array of industry, beautiful settings, friendly communities and a variety of recreational opportunities. To this day the timber, pulp and paper industry continues to play an important role in the community, as well as manufacturing, agriculture and healthcare. Wood County is the leading producer of cranberries in Wisconsin and even the nation. The small town communities and diverse landscapes of the county provide access to services and amenities residents and visitors desire. Over 96% of survey respondents agreed that parks, recreation, and open spaces improve the quality of life in Wood County.



Lake Dexter Sunset

## **Demographic Information & Social Characteristics**

The purpose of this section is to analyze Wood County's demographics and social characteristics. This information provides the foundation to identify current and future trends affecting recreation in the county. Where appropriate, figures are compared to what is happening statewide.

Demographic data and social characteristics information were appropriated from the U.S. Census Bureau and the Wisconsin Department of Administration (WDOA). Please note that the WDOA is an agency that prepares the official population estimates and projections for Wisconsin municipalities. Population projections are not a statement of what will happen, but an inference of what might happen. The agency uses several projection methods in an attempt to get the most accurate numbers. The next national census commences in 2020. 10-year census population data is more accurate than projections and estimates, and is the main source of information to see how communities change over time.

## **Historical Population**

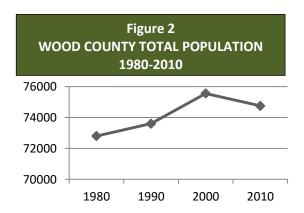
For over a century (1900 to 2000) Wood County experienced constant population growth, averaging an annual growth rate of over 11%. Historical U.S. Census population counts for Wood County are listed in (Table 2).

Table 2 WOOD COUNTY HISTORICAL CENSUS DATA 1900-2000						
Year	Year Population Percent Change (%)					
1900	25,865					
1910	30,583	18.2				
1920	34,643	13.3				
1930	37,865	9.3				
1940	44,465	14.4				
1950	50,500	13.6				
1960	59,105	17.0				
1970	65,362	10.6				
1980	72,799	11.4				
1990	73,605	1.1				
2000	75,555	2.6				
Source: U.S. Census Bureau						

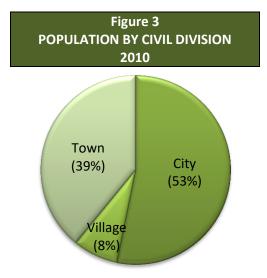
## **Population**

For the past several decades Wood County experienced relatively flat population growth. Official U.S. Census population counts from 1980 to 2010 are detailed in (Table 3) and (Figure 2). From 1980 to 2010 the county's population increased by 1,950 people, or 2.7%. According to the most recent census (2010), the county had a total population of 74,749. From 2000 to 2010 the county experienced a slight decrease in population of approximately 1%.

Table 3 WOOD COUNTY TOTAL POPULATION 1980-2010					
Year	Population	Percent Change (%)			
1980	72,799 *11.4				
1990 73,605 1.1					
2000	75 <i>,</i> 555	2.6			
2010 74,749 -1.1					
Source: U.S. Census Bureau *Percent Change from 1970 Census Count					



According to the most recent census (2010), the county had a population of 74,749. Of that total: 40,039 (53%) lived in cities; 5,820 (8%) lived in a village; and 29,445 (39%) were residents of towns. Shown in (Figure 3) is the 2010 population distribution by political subdivision. Wood County has two major population centers. The City of Marshfield in the northwest corner of the county with a population of 18,218 (2010), and the City of Wisconsin Rapids in the southeast with a population of 18, 367 (2010). Together they account for 49% of the county's population.



Source: U.S. Census Bureau

#### **Population Estimates**

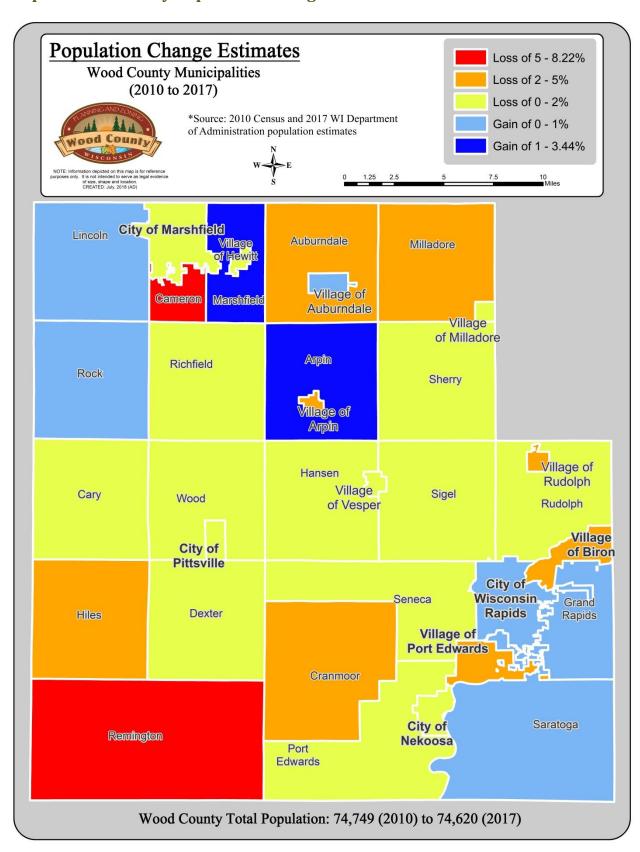
Recent population estimates from 2011 to 2018 indicate that Wood County has experienced relatively flat to stable population growth. Population estimates for the county are presented in (Table 4). The most current population estimates are for the year 2018, with the county having a preliminary total population of 74,817. Again, the next national census commences in 2020 and is the main source of population information to see how Wood County changes over time.

Table 4 WOOD COUNTY POPULATION (Estimates) 2011-2018					
Year	Population	Percent Change (%)			
2011	2011 74,669				
2012	74,587	-0.1			
2013	2013 74,583 -0.005				
2014	2014 74,954 0.5				
2015	74,965	0.01			
2016	74,998	0.04			
2017	2017 74,620 -0.5				
*2018 74,817 0.3					
Source: Wisconsin Department of Administration *Preliminary Population Estimate					

Final population change estimates prepared by the WDOA (from 2010 to 2017) for all municipalities in Wood County are illustrated in (Map 2) on the following page. To put recent population change estimates into perspective, only 6 of Wood County's 22 townships gained population since the 2010 census. 16 of the 22 total townships decreased in population.

Net migration is defined as people moving into the county minus those leaving. Over the past several years, Wood County has had a negative net migration. Over the past 5 years, over a third of Wisconsin counties experienced negative net migrations. (source: WDOA)

**Map 2: Wood County Population Change Estimates** 



#### **Population Projections**

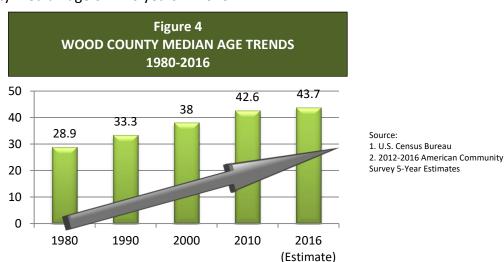
To properly plan for future services in Wood County, the County Board must be aware of the changing age structure of the population and of the numbers that are expected to live in the county in the future. Population projections are speculative and no person can forecast a community's future perfectly because of factors such as changing economics, physical demands on the environment, and changing political climate at all levels. However, by using historic data from the community one can foresee with some accuracy what the near future holds for the county as far as expected populations.

Projections of the anticipated future population of Wood County are presented in (Table 5). These projections were prepared back in 2013 by the WDOA. Again, these projections are not a statement of what will happen, but a presumption of what might happen if patterns and trends hold true. Based on population projections from 2020 out to year 2035, the county's population may slightly decrease over time by a half percent.

Table 5 WOOD COUNTY POPULATION (Projections) 2020-2035						
Year	Population Percent Change (%)					
2020	74,435					
2025	2025 74,370 -0.09					
2030	2030 73,930 -0.6					
2035 73,270 -0.9						
Source: Wisconsin D	epartment of Adminis	stration (2013)				

# Age & Gender Distribution

(Figure 4) illustrates the aging population in Wood County since 1980. Wood's current estimated median age of 43.7 (2016) is almost 15 years older than the 1980 median age in the county of 28.9. This similar trend is also the case for other counties, Wisconsin, and the U.S. as a whole. It is interesting to note, the median age for the State of Wisconsin was 38.4 in 2000, compared to the county median age of 42.6 years in 2010.



What has caused the increase in Wood County's median age? Has it been a drastic reduction in children under the age of 18? Has it been caused by increased longevity of the elderly population? Or, has the change in median age been driven by something else? (Table 6) provides some details about the population of various age groups from 2000 to 2010. The first thing that can be seen in this figure is the substantial drop in individuals under the age of 18 and the substantial increase in population over the age of 50. The increase in the median age of county residents is explained by the changes in these two age cohorts. Contributing factors to the increase includes families having less children and increased life spans of individuals contributing to the general aging county population. The continuation of this trend is expected to be reflected in the 2020 Census numbers when population age group information is released. Some recreation activities tend to be more popular among certain age groups based on a variety of factors, including how physically demanding they are. Demographic trends should continue to be monitored to ensure that recreation supply is aligned to meet demand.

The 2010 Census shows that Wood County's population is approximately 49.2% Male and 50.8% Female.

Table 6 WOOD COUNTY POPULATION PROFILE 2000-2010							
	2000	Percent (%)	2010	Percent (%)	Percent Change (2000-2010)		
Under 5 Years	4,634	6.1%	4,482	6.0%	-3%		
5 to 9 Years	5,217	6.9%	4,451	6.0%	-15%		
10 to 14 Years	5,837	7.7%	4,848	6.5%	-17%		
15 to 19 Years	5,663	7.5%	4,949	6.6%	-13%		
20 to 24 Years	3,859	5.1%	3,913	5.2%	1%		
25 to 29 Years	4,122	5.5%	4,279	5.7%	4%		
30 to 34 Years	4,904	6.5%	3,970	5.3%	-19%		
35 to 39 Years	6,107	8.1%	4,102	5.5%	-33%		
40 to 44 Years	6,318	8.4%	4,871	6.5%	-23%		
45 to 49 Years	5,614	7.4%	6,090	8.1%	8%		
50 to 54 Years	4,801	6.4%	6,191	8.3%	29%		
55 to 59 Years	3,681	4.9%	5,375	7.2%	46%		
60 to 64 Years	3,202	4.2%	4,466	6.0%	39%		
65 to 69 Years	2,789	3.7%	3,429	4.6%	23%		
70 to 74 Years	2,733	3.6%	2,851	3.8%	4%		
75 to 79 Years	2,424	3.2%	2,339	3.1%	-4%		
80 to 84 Years	1,900	2.5%	1,966	2.6%	3%		
85 to 89 Years	1,111	1.5%	1,360	1.8%	22%		
90 years +	639	0.8%	817	1.1%	28%		
Total	75,555	100.0%	74,749	100.0%	-1%		
Male	37,030	49.0%	36,777	49.2%	-1%		
Female	Female 38,525 51.0% 37,972 50.8% -1%						
Source: U.S. Census Bureau							

#### Race

Shown in (Table 7) Wood County has a population that is predominantly White (95%), according to the 2010 U.S. Census. A small percent of residents are: Black or African American (0.5); American Indian and Alaska Native (0.8) Asian (1.8%); Some Other Race (0.8); Two or More Races (1.1%).

Table 7 WOOD COUNTY POPULATION BY RACE 2010				
Race	Number	Percent (%)		
One Race	74,749	98.9%		
White	73,949	95%		
Black or African American	393	0.5%		
American Indian and Alaska Native 587 0.8%				
Asian	1.8%			
Some Other Race	593	0.8%		
Two or More Races 800 1.1%				
Source: U.S. Census Bureau				

#### **Educational Attainment**

Educational attainment is a term commonly referring to the highest degree of education an individual has completed. Educational attainment data for Wood County and State of Wisconsin are presented in (Table 8). High school graduate levels for Wood County over the past several decades are similar to state levels. However, bachelor's degree or higher attainment levels for the county over the past several decades have been lower than overall state percentages. According to the most recent census (2010), Wood County had an 89.2% high school graduate and 19.2% bachelor's degree or higher education attainment level.

Table 8 EDUCATIONAL ATTAINMENT (%) (Age 25 and over) 1990-2010						
Educational Loyal	W	Wood County		\	Visconsii	n
Educational Level	Educational Level 1990 2000 2010 1990 2000 2010					
High School Graduate 78.3% 84.8% 89.2% 78.6% 85.1% 89.4%						
Bachelor's Degree or higher 13.5% 16.9% 19.2% 17.7% 22.4% 25.8%						
Source: U.S. Census Bureau					•	·

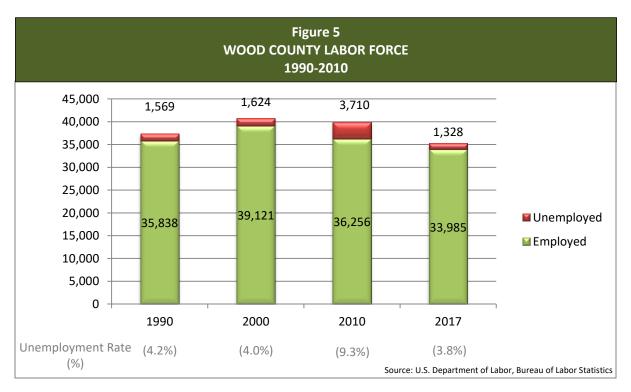
# **Income & Poverty**

(Table 9) lists the income levels for Wood County and Wisconsin. It is interesting to note that Wood's household, family and per capita income levels are slightly lower than the state of Wisconsin in both 2000 and 2010. This fact is understandable, given the slightly lower college education levels discussed on the previous page.

Table 9 INCOME LEVELS 2000-2010							
		2000			2010		
Community	Median	Median	Per	Median	Median	Per	
Community	Household	Family	Capita	Household	Family	Capita	
	Income Income Income Income Income Income						
Wood County	\$41,595	\$50,798	\$20,203	\$47,204	\$58,294	\$24,893	
Wisconsin \$43,791 \$52,911 \$21,271 \$51,598 \$64,869 \$26,624							
Source: U.S. Census Bureau							

## **Employment Characteristics**

(Figure 5) illustrates the general labor force characteristics for the Wood County. Overall, the county's labor force (employed and unemployed) has decreased from 1990 to 2017. However, Wood's 2017 unemployment rate of 3.8% is at historic lows. It is lower than the unemployment rates during the area's booming economy of the late 1900's. The county's slightly older median age may increase the impact that retiring baby boomers will have on the community's labor force.



## **Employment Projections**

Information on employment forecasts is unavailable at the county level. However, the Wisconsin Department of Workforce Development produces projections of industry employment at a regional level. (Table 10) examines ten-year employment forecasts for North Central Wisconsin over the 2014 to 2024 time period. Wood County is located within this region.

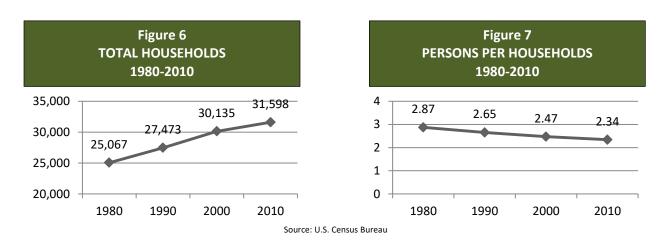
Employment across all industries is projected to grow by 6% by 2024. The most significant numeral growth is projected in the Education and Health Services industries at 3,892. This trend is important for Wood to identify because of the presence of several large medical facilities located within the county.

Table 10 EMPLOYMENT PROJECTIONS North Central Wisconsin Workforce Development Area (2014-2024)						
Industry 2014 Projected 2024 Percent Chan (2014-2024)						
All Industries	232,252	245,252	6%			
Natural Resources	9,581	9,794	2%			
Construction	6,458	6,984	8%			
Manufacturing	31,716	31,799	0%			
Trade, Transportation, and Utilities	45,327	47,522	5%			
Information	2,605	3,141	21%			
Financial Activities	13,590	14,808	9%			
Professional and Business Services	11,468	12,612	10%			
Education and Health Services	50,054	53,946	8%			
Leisure and Hospitality	18,379	19,880	8%			
Other Services	Other Services 12,268 12,184 -1%					
Public Administration 12,504 12,544 0%						
Self-Employed and Unpaid Family Workers 18,302 20,038 9%						
Source: Office of Economic Advisors, Wisconsin Department of Workf	Source: Office of Economic Advisors, Wisconsin Department of Workforce Development					

#### **Household Characteristics**

A household includes all people who occupy a housing unit. A household is different than a housing unit. A housing unit is a structure, i.e., single-family home, duplex, four-plex, etc. (Figure 6 and 7) illustrate two distinct household trends in Wood County. First, the number of households in the county continues to increase, having gone from 25,067 in 1980, growing steadily to its present 31,598 (2010) shown in (Figure 6). The second trend, shown in (Figure 7), is the fact that the average number of persons per household has continuously decreased over the same time period. In 1980, the average household in Wood County had 2.87 persons.

Compare that to the 2.34 average population per household today (2010). Whereas large families were the norm 30-years ago, family size has decreased over the past several decades. There are several reasons for this trend including: more people living alone; more couples without children; and couples having fewer children. As mentioned earlier, the county has lost population in the under 18 years old age cohorts and this attributes to the smaller household size as well. The trend of more households and fewer people per household is likely to continue throughout the planning period as children of the "baby boomers" leave home to start households of their own.



# **Housing Projections**

The number of households is a function of population and population per household. (Table 11) outlines Wood County's projected household growth and persons per household expected over the next 20 years. As just noted above, the population and total households are expected to continue to increase somewhat, while the number of persons living in each household is expected to continue to decline. In the year 2035, the county is forecasted to have 33,175 households.

Table 11 WOOD COUNTY HOUSEHOLD PROJECTIONS 2010-2035							
Year	Population	Households	Persons Per Household				
2010 Census	73,858	31,598	2.34				
2015	73,637	32,078	2.30				
2020 73,503 32,486 2.26							
2025	2025 73,370 32,861 2.23						
2030	2030 72,828 33,043 2.20						
2035 72,031 33,175 2.17							
Source: U.S. Census B	ureau, Wisconsin Dep	partment of Administra	ation				

## **Physical Landscape Characteristics**

The purpose of this section is to analyze Wood County's natural environment. It is important to know the physical landscape in which recreation is going to occur in order to responsibly develop future recreation opportunities. Additionally, an analysis of the physical landscape is critical to properly understand unique environmental constraints and limitations.

## **Physiography**

Wood County can be divided into three general physiographic regions. The first area covers the northern portion of the county and consists of broad rolling uplands and some areas of low-lying wetlands. This area lies in the Northern Highland physiographic province of Wisconsin. The second area covers the southeastern portion of the county and contains the Wisconsin River. This area consists of gently sloping, nearly flat topography and lies within the Central Sand Plains physiographic province of Wisconsin. The last region is also located in the Central Sand Plains. This area covers the southwestern portion of the county and is dominated by low-lying marshy/wetland areas. These landscapes are primarily a result of glacial action.

## **Topography**

Wood County ranges from 960 to 1,250 feet above sea level. Surface elevations slope or decrease, from north to south. This slope is interrupted by the Marshfield Moraine (1,360 feet), Powers Bluff (1,481 feet), Cary Bluff (1,182 feet), as well as a few lower hills. The highest point in the county is Powers Bluff located in the Town of Arpin. It rises 300 to 400 feet above the surrounding area and also happens to be a county park.



Powers Bluff County Park

# Geology

Wood County contains Precambrian igneous and metamorphic rock, Cambrian sandstone, and a variety of Pleistocene unconsolidated materials. The landform of the county is primarily a result of glacial action. A line from Wisconsin Rapids through Pittsville bounds the northern shore of glacial Lake Wisconsin where deposits are sands and sandstone. The southern and east central portion of the County, while not covered by ice during the glacial period, consists of well-sorted deposits of clays, silts and sands left by glacial outwash and lake deposits. The remainder of the County consists of a ground moraine of unsorted, ice-laid deposits of clay, silt, gravel and boulders.

#### Soils

Wood County is separated into three main soil groups. The northern portion of the County, roughly north of a line from Pittsville to Rudolph is characterized as silty or loamy soils. This group is associated with uplands on nearly level to moderately steep slopes and commonly have restricted permeability in the subsoil. Agricultural uses are well suited to the loamy soils. Sandy soils dominate the southeastern portion of the county. This area is a former glacial outwash plain which resulted in sandy soils. Most of these soils occur on nearly level slopes and range from somewhat poorly drained to well drained in the town of Saratoga and eastern parts of Port Edwards and Seneca. Organic and alluvial soils are also found in the southern portion of the county in basins and depressions. The Wisconsin and Yellow River floodplains contain poorly drained sandy and loamy soils formed from recent alluvium. Other areas contain very poorly drained organic soils formed from partly decomposed plant remains. Cranberry bogs are well suited to these soils. Much of the southern one third of the county is in forest and wildlife habitat.

#### **Water Resources**

Water resources are critical to outdoor recreation, economy, quality of life, and sustainability of living in Wood County. According to the Wisconsin Department of Natural Resources, Wood County has 78 lakes totaling over 6,240 acres. Of the 78 lakes, 13 lakes are named and 65 lakes are unnamed. Named lakes in Wood County are listed in (Table 12). Additionally, the county has over 100 unnamed lakes that are smaller than 20 acres. Ross Lake is the one and only named "seepage lake" in the county. The remaining named lakes are classified as drainage lakes. These lakes have both an inlet and outlet where the main water source is a stream. The main drainage lakes in the county are contributed to dams and are considered flowages, impoundments or reservoirs. These man-made lakes and flowages provide most of the recreational water in the county. Natural lakes in the county are generally small and very shallow with recreation potential mainly centered around wildlife, waterfowl and fishing.



Lake Wazeecha – South Park

The Wisconsin River is the county's most prominent water feature, and it is identified by 6 flowages; Biron Flowage, Wisconsin Rapids Flowage, Centralia Flowage, Port Edwards Flowage, Nekoosa Flowage, and the tail of the Petenwell Flowage. Although legally considered a river, the Wisconsin River is included with the lake inventory because of the large surface area that it covers that is more typical of a lake than a river. Although contiguous, the Wisconsin River flowages are somewhat confined water features separated by 4 dams that control the rate of water flow for power generation and regulating seasonal flow.

There are 82 named streams/creeks in Wood County totaling approximately 390 miles in length. The Yellow River is the longest in the county, but the Wisconsin River has the largest surface water acreage.

Table 12 NAMED LAKES IN WOOD COUNTY					
Name	Area (ac.)	Max Depth (ft.)	Lake Type		
Biron Flowage	2,126	23	Drainage Lake		
Centralia Flowage	231	19	Drainage Lake		
Dexter Lake	298	17	Drainage Lake		
Lake Kaunewinne	5	7	Drainage Lake		
Manakiki Lake	8	6	Drainage Lake		
Nekoosa Flowage	452	17	Drainage Lake		
Nepco Lake	494	29	Drainage Lake		
Petenwell Lake*	23,040	44	Drainage Lake		
Port Edwards Flowage	117	16	Drainage Lake		
Quail Point Flowage	28	2	Drainage Lake		
Ross Lake (Rose)	25	5	Seepage Lake		
South Gallagher Flowage	395	6	Drainage Lake		
Wazeecha Lake	148	20	Drainage Lake		
Wisconsin Rapids Flowage 447 22 Drainage Lake					
Source: "Wisconsin Lakes" PUB-FH-800 200 *Lake is a border lake and is counted for total	•	partment of Natural Re	sources)		

The Wood County recreation system has utilized the surface water of reservoirs extensively. Many cities and villages have also developed park and recreation areas along water fronts.

The quality of water resources is important to sustaining a healthy wildlife population and creating a safe and desirable place for outdoor recreation. Clean water provides an environment for aquatic species to thrive and reproduce in. When a water body experiences problems with pollution or lack of oxygen, many other plants and animal species that live on, in or near water bodies suffer as a result.

Clean surface water is also important to water recreation activities including swimming, boating and fishing. In Wood County water related recreation activities are very popular and are a contributing factor to the overall quality of life of the area. Clean lakes, rivers and streams also help the economy by drawing tourists to the area to recreate and vacation. Generally, the water quality of the lakes, rivers and streams in the county is good.

#### **Groundwater**

Groundwater is the source of all drinking water in Wood County. The main sources of groundwater in the county are from saturated sand and gravel deposits, fractured Precambrian rock and Cambrian sandstone. Generally, groundwater in the county is acceptable as far as quality and quantity. Regardless of the source, many factors determine the quality of the groundwater supply. Despite this seemingly inexhaustible supply, there are growing concerns about the quality of groundwater in Wood County.

#### Climate

The climate in Wood County is continental, characterized by large seasonal and daily ranges in temperature. Winters are usually cold and snowy and summers are generally warm with periods that are hot and humid. Precipitation on average is adequate for agricultural purposes, although some degree of soil moisture deficiency often occurs during the months of July and August. During the winter months prevailing winds are generally from the west and northwest, and from southerly directions in the summer.

#### Flora & Fauna

Wood County enjoys a very diverse vegetative land cover. The northern two thirds of the county is in the Northern Highland region of Wisconsin and is where most of the agricultural land is situated. Scattered hardwood forest woodlots are common in this area with acreages ranging from 1 acre to several hundred. There are a number of low depressions in this region of the county that create large wooded wetlands providing recreational hunting lands which are publicly owned. Two examples of such wetlands include the Sherry Flats and the Mead Wildlife Area. The southern one third of the county is situated on the lake plain of Glacial Lake Wisconsin. This low, sandy region is home to very large wetland areas, conifer forest tracks, and over 5334 acres of cranberry marshes. While the southeast corner of Wood County is somewhat urbanized, the south central and southwestern regions of the county are sparsely populated and relatively undisturbed.

Wood County's diverse landscape is conducive to a wide range of wildlife species inhabiting the area. Game species found throughout the county include deer, coyote, turkey, bear, fox, beaver, squirrel, rabbit, geese, grouse, duck, pheasant and partridge.

Non-game species found here are typical to most regions of Wisconsin with the exception of our special populations of sandhill cranes in the Sandhill Wildlife Area, and prairie chicken populations in the grasslands of northern Sigel and southern Sherry Townships.

## **Environmentally Sensitive Areas**

Environmentally Sensitive Areas, or ESA's, are defined, generally, as those areas that are unsuitable for certain development because of the potential adverse impacts on the natural environment. These areas include, but are not limited to wetlands, shorelands, floodplain, and other such physical constraints. The exact boundaries of environmentally sensitive areas shall be located through field surveys by appropriate regulatory agencies. Many of the ESA's in Wood County are already protected under current laws and ordinances. Any consideration of development within or adjacent to an ESA must be in conformance with all applicable federal, state, and local rules and regulations.

Certain recreation uses may be compatible in ESA's. If properly developed, recreation uses can even protect and preserve ESA functions while at the same time maximizing use of the resource.