

COUNTY FOREST COMPREHENSIVE LAND USE PLAN

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CHAPTER 100

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100 MISSION STATEMENT

The Forestry and Parks Administrator coordinates and directs all administrative and management functions of the Forestry and Parks Divisions of the department to ensure that the natural resources of Marinette County Forest are managed and protected on a sustainable basis, parks facilities are kept in good repair and to ensure accountability of the County forest, parks system and tax deed properties to the County Board, County taxpayer and the State of Wisconsin.

OUTCOMES:

- ❑ Annual Budgets and Work Plans.
- ❑ Annual Reports.
- ❑ Manage the forest to provide a variety of products and amenities for present and future generations through the use of sustainable forest management practices.
- ❑ Provide an information source for county taxpayers and visitors.
- ❑ Local residents and tourists will be provided with quality recreational experiences through a system of County parks, boat launches, and waysides to enhance county wide tourism and private business.
- ❑ The youth of the County and surrounding counties will experience quality environmental education and recreation at Camp Bird Youth Center.
- ❑ A system of snowmobile and ATV trails will be coordinated by the department for the enjoyment of residents and tourists and provide economic development for the County.
- ❑ Sale of tax deed properties

PERFORMANCE TARGETS:

- ❑ Protect the forest from natural catastrophes such as fire, insect and disease, and from human threats such as encroachment, over-utilization, environmental degradation and excessive development.
- ❑ Satisfying ecological and socioeconomic needs of present and future generations.
- ❑ Balance local needs with broader concerns through integration of forestry, outdoor recreation, wildlife, endangered resources, water quality and soils.
- ❑ Maintain Forest Certification of the county forest through the Sustainable Forestry Initiative (SFI).
- ❑ Manage environmental needs including watershed protection, protection of rare plant and animal communities, and biological diversity.
- ❑ Provide for sociological needs which include recreational opportunities and the production of raw materials for wood-using industries.
- ❑ Retain an excellent system of parks, boat launches, and waysides with planned facilities repair and maintenance.
- ❑ Provide a maintained access system into the county forest.
- ❑ Sell tax deed properties acquired by the county to cover county expenses and return these properties to the tax roll.

2006 ACCOMPLISHMENTS:

- ❑ Harvest a total of 35,851 cord equivalents which resulted in a gross timber sale revenue of \$1,361,403.64 through July 31.
- ❑ Set up 37 timber sales for future sale with an appraised value of \$1,038,028.55 through July 31.
- ❑ Distribute ten percent of timber sales revenue (\$189,507.94) to the towns containing county forest lands.
- ❑ Maintain 224 miles of County Forest Roads.
- ❑ Maintain 70 miles of firebreaks by discing
- ❑ Plant 104,400 trees on 116 acres and replant 26,000 trees on 48 acres.
- ❑ Prepare approximately 177 acres for future planting.
- ❑ Setup and offer for sale approximately 66 sales totaling 48,758 cords and 851,000 board feet of sawlogs.
- ❑ Maintain the scale records for the approximately 45,000 cord equivalents of wood to be removed from timber sales.
- ❑ Maintain a continual program of inspections on the nearly 150 timber contracts on file.
- ❑ Provide several Wildlife Habitat Projects such as 150 acres of aspen regeneration , 125 acres of chaining for natural Jack Pine regeneration, maintenance of Wildlife Openings in WHU's 1-6, and 1 to 5 miles of trail closures.
- ❑ Mow, clean out and clear 18 miles of hunter walking trails on the three designated county systems.
- ❑ Prescribed burn in Athelstane Barrens (approx. 57 acres) to perpetuate the flora and fauna in a barrens type community.
- ❑ Sold 17 tax deed parcels at public auction for \$368,550
- ❑ Maintained 5 tax deed buildings while in county ownership.
- ❑ Provided a revenue of \$86,362.48 in parks user fees and \$2,408 in Camp bird user fees to the county through July 31 with another \$21,000 expected at Camp Bird in August from NEW 4-H.
- ❑ Install a new snowmobile bridge across the Middle Inlet Creek.
- ❑ Complete Goodman Park retaining wall along river.
- ❑ Repaired chimneys of lodges at Goodman Park.
- ❑ Replace the last third of the wiring Twin Bridges Park Campground which will complete this project.
- ❑ Twin Bridge Shower Building Blacktop Parking Area.
- ❑ Blacktopped the Twin Bridge Main Parking Area.
- ❑ Rehabilitate 3 cabins at Camp Bird (with the Forestry Crew).
- ❑ Replace Oak Unit Bathroom, Oak Unit Cabin #4 and Norway-Lakeview Bathroom roofs at Camp Bird.
- ❑ Install several sinks in the Mess Hall Lodge at Camp Bird (address WI Food Code items).
- ❑ Continue to work on wheel chair access to buildings at Camp Bird.
- ❑ Repair Camp Bird Caretakers House Deck.
- ❑ Renovation of 5 sites at Morgan Park Campground (Forestry Crew).
- ❑ Install a new handicap access vault toilet at Dave's Falls Park.
- ❑ Produced and distributed a new Marinette County Map.
- ❑ Provide other revenues to the county through grants, permits, easements, miscellaneous sales and state aids.

- ❑ Complete the new County Forest 15 year Management Plan.
- ❑ Start work on the new Marinette County Park and Recreation Management Plan.

2007 GOALS AND OBJECTIVES:

- ❑ Provide \$2.1 million in gross timber sales revenue to the county.
- ❑ Maintain 224 miles of County Forest Roads.
- ❑ Maintain 50 miles of firebreaks by discing.
- ❑ Plant 134,100 trees on 149 acres and replant 30,000 trees on 69 acres.
- ❑ Prepare approximately 160 acres for future planting.
- ❑ Setup and offer for sale approximately 80 sales totaling 55,000 cords and 500,000 board feet of sawlogs.
- ❑ Maintain the scale records for the approximately 45,000 cord equivalents of wood to be removed from timber sales.
- ❑ Maintain a continual program of inspections on more than 160 timber contracts on file (136 current +36 on the fall sale).
- ❑ Provide several Wildlife Habitat Projects such as 150 acres of aspen regeneration , 125 acres of chaining for natural Jack Pine regeneration, maintenance of Wildlife Openings in WHU's 7-20, and 1 to 5 miles of trail closures.
- ❑ Hand release approximately 100 acres of red pine plantation, contingent on Sustainable Forestry Grant.
- ❑ Mow the Peshtigo River Hunter Walking Trail (8.75 miles), disk and seed where necessary.
- ❑ Sell by public auction all tax deed properties acquired by the county in 2006. (48 parcels on file as of 8/31/06)
- ❑ Maintain all valuable improvements on tax deed properties while in county ownership.
- ❑ Provide \$172,600 in park revenues and \$65,000 in Camp Bird revenues to the county.
- ❑ Little River Boat Landing parking lot striping.
- ❑ Install a new handicap access vault toilet at Veteran's Memorial Park Campground.
- ❑ Beach changehouse wall replacement at Twin Bridges Park.
- ❑ Repair culvert at Lake Noquebay Park.
- ❑ Rubber pads for under swings at Lake Noquebay Park playground.
- ❑ Water Tower at Morgan Park Campground Dump Station.
- ❑ Split rail fence for the Shower Building at Twin Bridges Park.
- ❑ Replace Woodshed roof (steel) at Twin Bridges Park.
- ❑ Add Treated Woodchips to various park playgrounds.
- ❑ Replace picnic area grills in various parks.
- ❑ Replace Goodman Park truck.
- ❑ Replace lawnmower at Goodman Park.
- ❑ Replace lawn mower at Morgan Park.
- ❑ Replace lawnmower trailer at Morgan Park.
- ❑ Replace chainsaw at Goodman Park.
- ❑ New weedwhip for west side.
- ❑ Replace or rehabilitate the Arts & Crafts Building at Camp Bird (Forestry Crew).
- ❑ Exhaust fans on roof of Mess Hall Lodge at Camp Bird.

- ❑ Repair roof on Mess Hall Lodge at Camp Bird.
- ❑ Repair cots & mattresses for Camp Bird (Forestry crew).
- ❑ Renovation of 5-10 sites at Veterans Memorial Park Campground (Forestry Crew).
- ❑ Renovation of Crystal Springs Wayside (Forestry Crew).
- ❑ Replace kitchen floor in the caretakers house at Camp Bird.
- ❑ Complete the Marinette County Park and Recreation Management Plan.

DEPARTMENT SUMMARY:

Authority

The Forestry Division is established in Wisconsin State Statutes S.28.10 and S28.11 and Chapter 16 of Marinette County Code of Ordinances. The Parks Division is established in Chapter 2.03 (3) (a) (9) and Chapter 16 of the Marinette County Code of Ordinances.

Responsibilities

- ❑ Carry out policies and procedures for the operations of the County forest, parks, recreational trails, boat launches, and waysides.
- ❑ Cooperate with the DNR in the management of the County forest in accordance with S28.11.
- ❑ Cooperate with other County departments in managing County property as necessary.
- ❑ Maintain accurate record keeping of all Forestry and Parks Division activities and accountability for the taxpayers of Marinette County and Wisconsin.
- ❑ Supervise all forestry and parks activities and personnel.
- ❑ Provide information to the Forestry, Parks, Outdoor Recreation and Lands Committee to make policy decisions.
- ❑ Propose policy to protect Marinette County Forest and Parks.

**105 GOAL OF THE COUNTY FOREST COMPREHENSIVE LAND USE PLAN
(Hereafter referred to as the “Plan”)**

To administer the County Forest program consistent with the mission statement and the purpose and direction of the County Forest Law as stated in s. 28.11, Wis. Stats., giving consideration to input from citizens and groups. The purpose of the County Forest Law being:

“ ... to provide the basis for a permanent program of county forests and to enable and encourage the planned development and management of the County Forests for optimum production of forest products together with recreational opportunities, wildlife, watershed protection and stabilization of stream flow, giving full recognition to the concept of multiple use to assure maximum public benefits; to protect the public rights, interests and investments in such lands; and to compensate the counties for the public uses, benefits and privileges these lands provide; all in a manner which will provide a reasonable revenue to the towns in which such lands lie.”

Each state agency, whenever it administers a law under which a local governmental unit prepares a plan, is encouraged to design its planning requirements in a manner that makes it practical for local governmental units to incorporate these plans into local comprehensive plans prepared under s. 66.1001 Wis. Stats (i.e. “Smart Growth” planning) s. 1.13(3) Wis. Stats. This County Forest plan will complement, and should be a part of local comprehensive planning efforts (e.g. Smart growth). There are similarities in the considerations of both plans although the County Forest plan is of smaller scale and focused by s. 28.11, Wis. Stats. In an effort to ensure that the values of the Marinette County Forest are fully recognized, protected and infused into local planning, the County Forest administrator / Asst. administrator, staff will identify the local efforts being taken to assure that the County Forest Plans mesh with local planning.

110 CHAPTER 100 OBJECTIVE

1. To recognize the authority of the County and State in the administration and development of operating policies on the Marinette County Forest.
2. To provide the reader of the plan with background information regarding the County Forest.

115 STATUTORY AUTHORITY

The County Forest Law (S 28.10 and s 28.11 Wis. Stats.) provides the authority to establish, develop, and manage a permanent County Forest Program. (For the full text of the County Forest Law refer to Chapter 900 (905.1).

120 COUNTY AUTHORITY

The County Forest Comprehensive Land Use Plan is the official County Forest authority. The Forestry & Parks Committee of the County Board (*hereafter referred to as the "committee"*) enforces the regulations governing the use of the County Forest.

120.1 ORDINANCES

The county ordinances that apply to the administration and management of the Marinette County Forest can be found in Chapter 900 (905.2).

125 HISTORY

125.1 STATEWIDE HISTORY AND DEVELOPMENT

In 1927, the State Legislature passed the Forest Crop Law, authorizing counties to create county forests. An opinion of the Attorney General with reference to the Forest Crop Law stated that the counties would be exempt from the owner's share of annual tax. The Legislature of 1929 specifically provided that counties were exempt from paying the "acreage share" required of private owners. The legislature of 1931 amended the County Forest Reserve Law of 1929. It provided for the payment of acreage aids to Towns for County Forest land and an additional annual State payment of \$.10 /acre to the Counties for all land within county forests entered under the Forest Crop Law. Counties were required to spend this aid money solely for the development of the county forest. In return for this aid, the state originally collected a seventy-five percent severance tax on the products cut on county forests. This was reduced to fifty percent in 1937 and then to twenty percent of gross sales in 1963.

In 1963, several major revisions were made to the County Forest Law. The most notable change was the creation of a permanent program of forests that would be managed in accordance with a 10 Year Comprehensive Land Use Plan developed by the county, with the assistance of the Department of Natural Resources. The severance tax on harvested forest products still remains at 20% of the stumpage value, although no severance tax is collected if counties do not have a loan balance. A number of grants, loans and shared revenue payments are currently available to counties to help offset any losses in taxes due to public ownership. The acreage share payment to towns is currently \$.30/acre. In addition, towns with county forest land receive a minimum of 10% of the stumpage revenue from their respective County Forest each year. Stumpage revenues exceed \$18,000,000 annually.

Twenty-nine counties in Wisconsin now own approximately two and one third million acres entered under the County Forest Law.

125.2 COUNTY FOREST PROGRAM HISTORY AND DEVELOPMENT

At one time, much of Wisconsin was covered with magnificent stands of pine, hemlock, and hardwoods on the highlands, and cedar, spruce, and balsam on its lowlands. From 1860 to about 1910, these forests provided raw material for a thriving lumber industry. The need to supply lumber for a growing nation, and the lack of sound forest management, resulted in overharvest of the forests and degradation of the landscape. Immigrants rushed to these newly cleared lands, hungry for a place to farm and build their lives. But in just a few years, the soils gave out, catastrophic fires occurred, and many people were forced to seek their fortunes elsewhere. The land was left exhausted and tax delinquent. The Wisconsin County Forest program originated with the taking of these tax delinquent lands.

125.3 MARINETTE COUNTY FOREST HISTORY & DEVELOPMENT

At one time, Marinette County was covered with magnificent stands of pine, hemlock, and hardwoods on the highlands, and cedar, spruce, and balsam on its lowlands. From 1860 to about 1910 these forests provided a raw material for a thriving lumber industry. In the clamor to conquer the wilderness and supply lumber to house the rapidly growing population, the forests were severely over harvested. Nor was forest management even considered. Immigrants rushed to these newly cleared lands hungry for a place to farm and

build their lives. The quickest way to clear farm fields of logging slash was to burn it. This provided the ideal setting for wildfires which culminated in the Peshtigo fire. In just a few years, the soils gave out and the immigrants left to seek their fortunes elsewhere, leaving the land not only more barren than when they arrived, but tax delinquent as well. The Marinette County forest originated with the taking of those tax delinquent lands.

Marinette County was among the first counties to participate in the Wisconsin County Forest Crop Law with the entry of 14,003 acres in 1930. The latest entry of 4,646 acres in September, 1992 brings the present county forest acreage to 231,675 acres. The first Marinette County Forestry Ordinance was adopted on July 26, 1933, and it designated a three member land committee to administer the county forest. This committee was expanded to five members in May of 1943. In 1937, the County Agricultural Agent was appointed as the first administrator of the county forest. Recognizing the need for technical expertise, a graduate forester was hired on June 1, 1940, as an assistant county agent to assure the technical management of the county forest. The forestry department has evolved over the years from one person with a part-time secretary to the administrator, one full-time and one part-time secretary, a permanent five person forestry crew, a well equipped field headquarters complex at Amberg, a full-time timber scaler and four technically trained foresters, one serving as the Assistant County Forest Administrator, and three staff foresters. In addition, all recreational activities on the county forest have been assigned to a professionally trained recreation specialist who, along with his staff, supervises all county owned recreational developments both on and off the forest.

In 1963, several major revisions were made to the County Forest Law. The most notable change to the law was to create a permanent program of forests that would be managed in accordance with a 10 Year Comprehensive Land Use Plan developed by the County, with the assistance of the Department of Natural Resources.

125.4 WISCONSIN COUNTY FORESTS ASSOCIATION

Marinette County is a member of the Wisconsin County Forests Association, Inc. (WCFA). This Association was incorporated on May 15, 1968 under Chapter 181 of the

Wisconsin Statutes, without stock and not for profit. The WCFA Board of Directors is composed of ten delegates elected from the County Forestry Committees who are members of the Association.

This corporation provides a forum for consideration of issues and policy that are common to all of the county committees responsible for their respective County Forest programs, including those programs encompassed under s.28.11 and Chapter 77, Wis. Stats. WCFA also provides leadership and counsel to County Forest administrators and forestry committees through regular meetings and active committees on legislative and recreational issues.

130 DESCRIPTION OF FOREST

130.1 NATURAL FEATURES

130.1.1 Topography

The Marinette County Forest is located in the Northeast part of the state. Thunder Mountain, in the western portion of the county, is the silent witness to most of the geologic history of Marinette County. This monadnock is part of the eroded remnants of an ancient range of rugged mountains formed some 500 million years ago. Over the ages, the erosive forces of wind, water, and ice have reduced the area to a relatively level profile. During these same millions of years, tropical seas, ancient forests, and massive glaciers all added their influence in the formation and distribution of soils in the county. The topography of the county can be attributed to the fourth glacial stage of the Pleistocene Epoch. The present landforms are the direct result of the Green Bay Lobe of the Wisconsin Glacial Ice Sheet which ended some fifteen to twenty thousand years ago. The depth of the glacial material deposits over bedrock generally increases from northwest to southeast in the county. Frequent out-crops of bedrock occur generally north of a line from Thunder Mountain northeasterly through Amberg.

130.1.2 Geology and Soils

The soils of Marinette County have been derived largely from the weathering of the glacial drift deposits and show a great variation within relatively short distances, which is

characteristic of recently glaciated areas. Since the glacial period the soils have been modified by water action, wind, and the accumulation and incorporation of organic material. Soil types are not generally found in extensive continuous area of any one soil classification. They normally are scattered in smaller groupings. A broad assembly is possible based on similar characteristics. A very general description of the soils in the county follows:

The eastern part of Marinette County consists dominantly of calcareous till and outwash soils. The major till soils are Emmet and Charlevoix fine sandy loam, Menominee and Iosco loamy sand, and Ensley loam. The major outwash soils are Mancelona Loamy sand, Nadeau fine sandy loam, Alpena gravelly sandy loam, Menahga sand, Au Gres loamy sand, and Roscommon mucky loam sand. The organic Seelyeville muck and Markey muck soils occur to a lesser extent. The Bonduel and Cunard loam, and Summerville fine sandy loam dolomite bedrock soils occur to a lesser extent in the southeast part of this area. In the northeast part of the county, igneous bedrock soils are common. The major soils are Ishpeming loamy fine sand, Michigamme fine sandy loam, and rock outcrop. The extreme southern part of the county is dominated by fine sand outwash soils. The major soils are Wainola, Shawano, and Rousseau loamy fine sand, and Deford mucky fine sand. The central and western parts of the county are dominated by loamy and sandy outwash soils. The major soils are Padus fine sandy loam, Pence sandy loam, Emmert gravelly sandy loam, Karlin loamy fine sand, Roscommon mucky loamy sand, Menahga sand, Au Gres loamy sand, and Croswell loamy sand. The organic Loxley and Dawson peat, and Seelyeville and Markey muck occur to a lesser extent. Glacial till soils such as Goodman and Monico silt loam, Sarona fine sandy loam, and Keweenaw loamy sand also occur to a lesser extent, as do igneous bedrock soils such as Ishpeming loamy sand, Michigamme fine sandy loam, and rock outcrop. The bedrock geology in the northern half of the county consists of igneous and metamorphic rock. The southern half consists of sedimentary rocks. A generalized soil map can be found in Chapter 900.1.

130.1.3 Geography

Marinette County is the third largest county in Wisconsin with a land area of approximately 888,020 acres, plus another 16,495 acres of water included in lakes and streams. Approximately seventy-seven percent of the land in the county is classified as forest land.

The county forest, which contains approximately 231,675 acres, is the second largest county forest in the state.

130.1.4 Biological Communities

Wisconsin's County Forests are part of a larger landscape and are managed not as sole entities but part of a larger ecoregion. The National Hierarchical Framework of Ecological Units (NHFEU) categorizes Wisconsin into two provinces, the Laurentian Mixed Forest (212) forming the northern half of the State and the Eastern Broadleaf Forest (222). Within each province are sections, subsections and landtype associations that further group land into areas with similar geology, soil types, surface water features, wetlands and historic and potential plant communities. The Marinette County Forest is encompassed within the Laurentian Mixed Forest province including subsections West Green Bay Till Plain, Athelstane Sandy Outwash and Moraines, Green Bay Sandy Lake Plain and Brule and Paint Rivers Drumlinized Ground Moraine. Landtype Associations (LTA's) within the subsections include: Coleman Drumlins, McAllister Drumlins, Stephenson Drumlins, Spread Eagle Barrens, Butler Plains, Waupee Knolls, Aurora Moraines, Athelstane Moraines, Mount Tom Moraines, Wausaukee Outwash Plains, Amberg Moraines, Dunbar Barrens, Sand Lake Plains, Marinette Plains, Wabeno Drumlins, Wabeno Plains and Bass Lake Drumlins. LTA's, having common ecological characteristics, allow land managers to better plan for future vegetative communities, wildlife species to feature, and compatible recreation uses.

A biological community is an assemblage of different plant and animal species, living together in a particular area, at a particular time in specific habitats. Communities are named for their dominant plant species. The following biological communities are found on the Marinette County Forest: (See Map of LTA in 925.7)

Northern Forest: contains mixed deciduous and coniferous forests found in a distinct climatic zone that occurs north of the tension zone. Commonly found in the Athelstane and Amberg Moraines LTAs in the western and northern portion(s) of the County Forest.

Oak and Pine Barrens: typically occur on sandy soils and are dominated by grasses,

low shrubs, small trees, and scattered large trees. Most commonly these are pine barrens in northern and southern Wisconsin and oak barrens in the southern and west central parts of the state. LTA 212Tc02 and 212Tc16 (Spread Eagle, Dunbar Barrens and Athelstane Barrens) in the northern part of the forest, contain the barrens communities on the Marinette County Forest.

Wetlands: *characterized by soils or substrate that is periodically saturated or covered by water. This community is common across the Marinette Plains LTA.*

Aquatic Communities: *including springs, ponds, lakes, streams and rivers. Common to LTA 212Tc11 (Amberg Moraines) and consisting of mainly Menominee, Peshtigo and Pike River Systems.*

130.1.5 Vegetative Cover Types

Approximately 80 percent of the Marinette County Forest land base is forested. Forested uplands are comprised of primarily aspen and mixed hardwood while fir-spruce, lowland hardwoods, tamarack and cedar occupy the forested lowlands. The remainder is classified as non-forested, including types such as open water, wetlands, rights-of-way, grass openings, shrubs and bogs. The different cover types present on the Marinette County Forest are detailed under “Forested Communities” in Chapter 800 (820.1).

The great majority of the forest is located in the northern one-half of the county. The remaining portions are scattered in the southern one-half of the county with the two largest blocks located west of Crivitz and east of Lake Noquebay. Chapter 900.2 contains a map showing the location of the county forest.

130.1.6 Wildlife

The Marinette County Forest is habitat for wildlife common to Wisconsin. No formal survey has been conducted to identify or inventory the fauna occurring on the Forest.

Numerous species of songbirds, waterfowl, raptors, shorebirds, reptiles, amphibians, fish

and mammals frequent the forest. Each species, or interacting group of species, do best under different conditions, ranging from recently disturbed ground to old growth. A diversity of plant communities is key to providing a niche for a variety of wildlife species. For example, two very popular wildlife species in the county are the ruffed grouse and white-tailed deer. The aspen forest type is recognized as key habitat for these species and is important in maintaining biological diversity across North America. Longer rotation forest communities, such as unevenaged northern hardwood, similarly provide important habitat for other, less well-known species, such as pileated woodpeckers or northern goshawk.

Permanently sodded, grassy openings within the forest, many originating from old log landings, camps, old burns, or frost pockets] are vital components of forest wildlife habitat. An effort is being made to maintain and improve the quality and, in some cases, the quantity of openings.

130.1.7 Rare and Endangered Resources

A review of the Natural Heritage Inventory (NHI) indicates the presence of a number of rare species, natural communities and unique natural features on the Marinette County Forest. See Chapter 900 for a listing of threatened and endangered species in the Forest.

130.1.8 Water

Marnette County has 16,495 acres involving 430 named lakes, 14 flowages and 924 miles of streams. Of this total, 626.4 miles are classified as trout streams, 423.4 miles of Class I, 158.6 miles of Class II and 44.4 miles of Class III.

Within the County Forest boundaries there is a variety of fishery resources. Approximately 46 named and 16 unnamed lakes have all or portions of their shoreline under county ownership. In addition, the county owns frontage on over 50 named trout streams totaling over 50 miles. A complete inventory of the surface water resources in Marinette County can be found in Chapter 925.5.

As listed in the Wisconsin Administrative Code, NR 102, Marinette County also has 49 streams totaling 328 miles which are classified as Outstanding Resource Waters and an

additional 111 streams totaling 150 miles which are classified as Exceptional Resource Waters. A map of the Outstanding and Exceptional Resource Waters is found in Chapter 925.6.

Note: An entire listing of the outstanding and exceptional resource waters can be found in Wisconsin Admin. Code NR102.10 and 102.11.

130.2 CULTURAL FACTORS

130.2.1 Recreation

Forest-based recreation has expanded rapidly in recent years in Marinette County. Recreational opportunities with developed facilities include parks, beaches, campgrounds, waysides, boat landings, canoe campsites, and snowmobile, all-terrain vehicle, hunter/walking, and cross country ski trails. The county forest also provides tremendous opportunities for informal recreational pursuits not requiring developments. These include hunting, fishing, berry and mushroom picking, bird watching, hiking, mountain biking, and sight-seeing.

130.2.2 Economy

Production of forest products and spin-off industries derived from the recreational opportunities on the Forest and the forest products it produces are vitally important to Marinette County's economic well being. Forest industry is the #2 ranked employer in the County. Recreation and tourism is ranked #1. The quality of life in many counties is heavily dependent on the traditional resources the County Forest provides.

130.2.3 Roads & Access

All Marinette County Forest lands are open for public use and for foot travel. In addition to the town and county roads that access the forest, the county also maintains 225 miles of County Forest roads. A number of gated or bermed special use trails and roads are also available. Access management remains a controversial issue on the Forest. Both motorized and non-motorized recreation are provided for within the Forest. See Chapter 700 for detailed discussion on Forest access.

130.2.4 Education and Research

Education and research continue to be critical components in making decisions that affect our natural resources. As public needs and demands of our forest and its products increase, we must be prepared to assure that sound decisions result. To this end, Marinette County encourages and supports research efforts that relate to the forest, and educational opportunities that will promote a better understanding of forest communities and management.

130.2.5 Trends

The values and uses of the Marinette County Forest contribute significantly to fulfilling many of society's ecological and socioeconomic needs now and in the future. Changing trends will impact the values and uses of the Forest in coming years.

a. Greater demands are being placed on the Forest by people using it to fulfill their recreational pursuits. The popularity of trails for various uses has led to user conflicts. In particular, dramatic increases in the number of all terrain vehicles (ATV's) has pressured County forests into providing trails for their use and resolving access conflicts on the County Forest. Conflicts between motorized and non-motorized users are commonplace.

b. Demands for timber products are predicted to increase. At the same time, more private forest land is being lost to residential development, and forest landowners are decreasingly interested in managing land primarily for timber values.

c. Wisconsin's forests are naturally changing due to forest succession. Most of the County Forest acreage statewide is a result of regeneration or planting from the early to mid 1900's. Mid to late successional northern hardwood forests are replacing the early successional aspen-birch, oak and jack pine forests of the 1940's through the 1970's. The aspen cover type is key habitat for many of the state's premier game species including deer, ruffed grouse, snowshoe hare and woodcock. A declining harvest and a movement away from even-aged species on Wisconsin's National and State forests may place the responsibility of maintaining aspen, birch and jack pine types on the county forests. The county forest system currently has 15% of the State's public land base and 24% of the aspen resource.

d. Conflict over timber management practices will likely continue to increase as more individuals and groups demand greater involvement in forestry decisions. Practices such as clearcutting and even-aged management will continue to be controversial. Efforts to educate the public on the merits of these sound forest management techniques will continue.

e. Marinette County may experience funding problems as municipalities are being required to provide more services with less money. Potential losses of revenue from decreased shared revenues and resistance to tax increases may make county timber revenues increasingly important to the finances of county governments. This is complicated by increasing public pressure to reduce timber harvests on county forests.

f. Increasing knowledge about a wider variety of species and their habitat needs is leading to a growing list of threatened and endangered species. This could lead to improvements in managing the forest and mitigating impacts to these species. Mitigating measures have the potential to impede recreational and forest management activities. Refer to Chapter 800 for specifics on this subject.

g. Invasive exotic species pose an ever-increasing threat to the County Forest. Gypsy moth, Asian long-horned beetle, garlic mustard, buckthorn, honeysuckle have all gained a foothold in Wisconsin's forests. Refer to Chapter 800 (830.4) for specifics on this subject.

h. The Forest is considered to be an outdoor classroom serving all age groups. It consists of diverse communities with a large variety of plant and animal life giving ample opportunity for study and observation.

130.3 COUNTY FOREST OWNERSHIP

The County Forest is composed of 402 management compartments ranging in size from 140 acres to nearly 1800 acres. Within the county forest boundaries approximately 82 percent of the land is county owned with most of the remaining 18 percent in small private holdings. A map of these compartments can be found in Chapter 900.3, exhibit.