

COUNTY FOREST COMPREHENSIVE LAND USE PLAN

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CHAPTER 300

DESCRIPTION OF FOREST AND MANAGEMENT PLANNING

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300 DESCRIPTION OF FOREST

300.1 COUNTY FOREST OWNERSHIP

The County Forest is composed of 88 management compartments ranging in size from 45 acres to 1008 acres. The Florence County Forest Blocking Boundaries is the entire county. Approximately 12 percent of the land is county owned. A map of these compartments and the county forest boundaries can be found in the Appendix.

300.2 NATURAL FEATURES

300.2.1 Topography

The Florence County Forest, located in the Northeastern part of the state, lies primarily within the southern extension of the Canadian Precambrian Shield physiographic region(s) of Wisconsin. The topography of the forest and surrounding area has glacial origin. The glaciers eroded hilltops and filled valleys, thus reducing relief. Elevations range from 1038 feet to 1526 feet across Florence County. The terrain ranges from rolling hilly in the western region of the forest to moderately rolling in the eastern part of the forest.

300.2.2 Geography

Florence County has a land area of approximately 316,956 acres, plus another 8,470 acres of water included in lakes and streams. Approximately 80 percent of the land in the county is classified as forest land. The County Forest, which contains approximately 36,059 acres.

Appendix 1000 contains maps showing the location of the County Forest.

300.2.3 Geology and Soils

Florence County lies within the southern extension of the Canadian Precambrian shield. Outcrops are widely distributed and locally numerous in the eastern part of the county. Although there is evidence that sandstones of Cambrian age covered the county millions of years ago they have long since been removed by erosion. Locally altered and enriched parts of iron-bearing formations near Florence were mined for Iron Ore. The iron ore was of moderate iron content, and relatively high in phosphorus content. The great variety of

minerals in the sandy soils of the county is derived from the wide range of metamorphosed sedimentary and igneous rocks.

The soils of Florence County have been derived largely from the weathering of the glacial drift deposits and show a great variation within relatively short distances. 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 areas of any single soil classification, but are scattered in smaller groupings. A broad grouping is possible based on similar characteristics.

The eastern one-quarter of the county has soils formed from sandy deposits over glacial drift, largely outwash sand. These soil types are Vilas and Pence. The county forest has primarily Vilas and Hibbing soils, Ubyly soils on the upland sites, and a range of imperfectly drained sands, muck, and peat on the lowland sites. Soils formed from calcareous, reddish-brown clay loam and silty clay loam glacial drift, largely till, with local sandy coverings lie mostly in the east central part of the county. Associated soil types are Hibbing and Ubyly. Soils formed from silty to loamy deposits overlying reddish-brown acid sandy loam to clay loam glacial drift, largely till lies throughout the county but is concentrated in the central part of the county, from the northern to the southern boundaries of the county. Associated soil types are Goodman, Wakefield, Iron River, and Pence Soils. The western one-third of the county has a majority of soils formed from silty or loamy deposits over outwash sand and gravel. These soil types are Stambaugh and Pence. A generalized soil map can be found in the Appendix. Detailed soils information is available from the USDA Web Soil Survey (websoilsurvey.nrcs.usda.gov).

300.2.4 Ecological Landscapes

Ecological Landscapes are regions in Wisconsin containing similar ecology and management opportunities. Each landscape can present unique management opportunities and challenges. These landscapes are essentially based on the National Hierarchical Framework of Ecological Units (NHFUE) (Cleland et al. 1997). More information on the 16 Ecological Landscapes defined within Wisconsin is available at:

<https://dnr.wi.gov/topic/landscapes/index.asp?mode=Choose>. The Florence County Forest lies within the Northeast Sands and the North Central Forest Ecological Landscapes

Northeast Sands – Found in northeast Wisconsin. Soils generally well drained sands or loamy sands with forest types dominated by pine, aspen-birch and oak.

North Central Forest – Found across northern Wisconsin. Soils are generally sandy loams, sands and silts with forest types dominated by northern mesic forest types such as northern hardwood, aspen-birch and spruce-fir.

300.2.4.1 Land Type Associations

Land type associations are units of the National Hierarchical Framework of Ecological Units (NHFEU) classification system. They are much smaller than Ecological Landscapes and are generally based on glacial features. They can be useful for planning at finer scales within a landscape. The following Land Type Associations are present within the Ecological Landscapes of the Florence County Forest.

Land types within the North Central Forest Ecological landscape:

212Xg05 Florence Moraines - Landform pattern is rolling collapsed moraines and outwash plains with bedrock knolls and ridges. Soils are predominantly well drained fine sandy loam over outwash, acid sandy loam till, or igneous/metamorphic bedrock. Common habitat types include ATM, PArVAa-Vb, PArVAo, AVb and forested lowland.

212Xg06 Fern Moraines - The characteristic landform pattern is rolling bedrock-controlled moraines and outwash plains. Soils are predominantly well drained silt loam over acid loamy sand till, igneous/metamorphic bedrock, or outwash. Common habitat types include AOCa, ATD, ATM, TMC, AVVb and forested lowland.

212Xc05 Popple River Knolls - The characteristic landform pattern is rolling collapsed outwash plain with swamps and bogs common. Soils are predominantly well drained sandy loam over outwash. Common habitat types include AOCa, forested lowland, TMC, ATM

and ATD.

Land types within the Northeast Sands Forest Ecological landscape:

212Tc01 Homestead Moraines - The characteristic landform pattern is undulating moraine. Soils are predominantly moderately well drained silty and sandy soils over calcareous loam till. Common habitat types include ATM, AViO, hydromesic, PMV-Vb, and forested lowland.

212Tc02 Spread Eagle Barrens - The characteristic landform pattern is rolling collapsed outwash plain. Soils are predominantly excessively drained loamy sand over outwash. Common habitat types include QV, PMV-Vb, and forested lowland.

212Tc05 Aurora Moraines - Landform pattern is rolling collapsed moraines and outwash plains with bedrock knolls and ridges. Soils are predominantly well drained fine sandy loam over outwash, acid sandy loam till, or igneous/metamorphic bedrock. Common habitat types include ATM,

212Tc16 Dunbar Barrens - The characteristic landform pattern is undulating lake plain with bedrock and morainic knolls and ridges. Soils are predominantly somewhat poorly drained loamy fine sand over igneous/metamorphic bedrock. Common habitat types include PMV-Vb, TMC, hydrom

212Tc17 Sand Lake Plains - The characteristic landform pattern is undulating outwash plain and morainic knolls. Soils are predominantly excessively drained loamy sand over outwash. Common habitat types include QV, PMV-Vb, forested lowland, and AQVb.

More information is available at the following website for land type associations:
<https://dnr.wi.gov/topic/landscapes/index.asp?mode=detail&Landscape=11>

300.2.5 Vegetative Cover Types

Approximately 92 percent of the Florence County Forest land base is forested, and approximately 8 percent of the Florence County Forest is non-forested. Forested uplands

are comprised of primarily Aspen, Red Oak, Northern Hardwood, Red Pine, Jack Pine while Cedar, Tamarack and Fur-spruce occupy the forested lowlands. Non-forested includes types such as open water, wetlands, rights-of-way, grass openings, shrubs and bogs.

FORESTED COMMUNITIES

The forested cover types are made up or a variety of size classes regeneration, sapling-pole, and saw timber and structure canopy, layers, ground vegetation, dead and downed material and inclusions.

Below are the current cover types on the Florence County Forest.

Cover Type	Acres	Percentage of County Forest land
Aspen	19,225	58%
White Birch	33	0%
White Cedar	633	2%
Balsam Fir	137	0%
Hemlock	50	0%
Misc. Conifer	113	0%
Misc. Deciduous	6	0%
Red Maple	247	1%
Northern Hdwds	3,084	9%
Oak	2,533	8%
Scrub Oak	351	1%
Jack Pine	2,040	6%
Red Pine	2,258	7%
White Pine	333	1%
Black Spruce	1,036	3%
Swamp Hdwd	343	1%
White Spruce	126	0%
Tamarack	341	1%

NON-FORESTED COMMUNITIES

Non-forested habitats are important components of management within the County Forest. Upland and wetland non-forest types provide important habitat for distinct groups of species.

Upland Non-Forest

Upland non-forest areas of the County Forest include:

Grass openings- consist of upland grasses such as brome, quack, bluegrass, timothy, big and little bluestem, and Indian grass.

Herbaceous vegetation- ground cover predominated by herbaceous species with bracken fern, sweet clover, giant ragweed, sting nettle, upland aster, goldenrod, and prairie dock being common.

Shrub opening- primarily upland site less than 10% stocked with tree species but having 50% or more of the area stocked with taller growing, persistent shrubs. This includes hazel, dogwood, juneberry, sumac, alder, willow, and prickly ash.

Rock outcrops- include rocky talus and bedrock.

See Chapter 830 for detailed discussion on Biological Community Types.

Wetlands

Wisconsin State Statutes define a wetland as “an area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation, and which has soil indicative of wet conditions.” Wetland communities are recognized to be a complex association of plants and animals, soils and water levels having special natural values. They provide many functional values including shoreline and flood protection, water quality protection, groundwater recharge, and animal and plant habitat. Therefore, it is the policy of Florence County to preserve, protect, and manage wetlands under its jurisdiction in manner that recognizes the natural values of wetland and their importance on the

environment. Scientist distinguish dozens of wetland types, characterized by vegetation, soil type and degree of saturation or water cover. Some of the more prominent types found on the County Forest include:

Aquatic bed- plants growing entirely on or in a water body no deeper than 6 feet. Plants may include pondweed, duckweed, lotus and water-lilies.

Marshes- characterized by standing water and dominated by cattails, bulrushes, pickerelweed, lake sedges and/or giant bur-reed.

Sedge or “wet” meadows- these wetlands more often than not have saturated soils rather than standing water. Sedges, grasses and reeds dominant, but may also have blue flag iris, marsh milkweed, sneezeweed, mint and several species of goldenrod and aster.

Scrub/shrub- these areas, which include bogs and alder thickets, are characterized by woody shrubs and small trees such as tag alder, bog birch, willow and dogwood.

Forested- these areas, include bogs and forested floodplain complexes, are characterized by trees 20 feet or more in height such as tamarack, white cedar, black spruce, elm, black ash, green ash and silver maple.

Forest management is conducted on many of the forested wetlands with activities occurring primarily during frozen conditions. See Chapter 830 for detailed discussion on Biological Community Types.

300.2.6 Fish and Wildlife

Wisconsin supports over 650 different types of mammals, birds, reptiles, amphibians and fish as well as millions of invertebrates. Management of county forest lands and the biotic communities they support provide a mix of habitat types and ages for a wide range of wildlife species. Each species, or interacting group of species, do best under different conditions. County forest lands provide a full range of habitats from open

grasslands/barrens to mature forests, from bogs to forested wetlands, from spring ponds to lake shorelines. County forest staffs work closely with WDNR fish and wildlife managers and conservation organizations to identify and manage critical habitat for breeding, migrating and wintering fish and wildlife.

While the Florence County Forest provides for a wide range of fish and wildlife species, current management strategies or programs have emphasized the following species and/or communities: Ruffed Grouse, Whitetail Deer, Turkey, Wood Turtles, and Woodcock. Florence County Forestry and Parks staff have also been engaged with WDNR fisheries staff conducting surveys on lakes within the boundaries of the Florence County Forest as well as other lakes in Florence County. Information from these surveys can be found on the Wisconsin DNR website at <https://dnr.wi.gov/topic/fishing/reports/>

300.2.7 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 Florence County Forest. All land disturbing projects will include an evaluation phase, to determine whether an NHI screening is required.

The Natural Heritage Inventory Database is the most comprehensive source of rare species data for Wisconsin. These data are used for a variety of purposes including research, land management, state land master planning, community planning, conservation planning and review of public and private activities across the state, The NHI Portal is currently available to DNR staff and County Forest staff who hold a data sharing license.

The Wisconsin Historical Preservation Database is the most comprehensive source of cultural resources for Wisconsin. These data are used for a variety of purposes including research, land management, state land master planning, community planning, conservation planning and review of public and private activities across the state, The Wisconsin Historical Preservation Database is currently available to DNR staff and County Forest staff.

300.2.8 Water

Florence County has 8,470 acres involving 261 named lakes, 5 flowages and 393 miles of streams.

Within the County Forest boundaries there are a variety of fishery resources. Approximately 7 named and 20 unnamed lakes have all or portions of their shoreline under county ownership. In addition, the county owns frontage on over 6 named trout streams totaling over 10 miles. A complete inventory of the surface water resources in Florence County can be found on the Wisconsin DNR Website.

Florence County also has 92 streams and rivers, and 5 lakes which are classified as Outstanding and Exceptional Resource Waters including:

Brule River	Menominee River	Pine River
Montagne Creek	Riley Creek	Popple River
Chipmunk Creek	Cody Creek	Haley Creek
Haymarsh Creek	Lamon Tanguie Creek	Lepage Creek
Lunds Creek	Martin Creek	Olson Creek
Patten Creek	Pine Creek	Rock Creek
Simpson Creek	Seven Mile Creek	Wakefield Creek
Woods Creek	Little Popple River	Lake Edith
Keyes Lake	Lost Lake	Perch Lake
Riley Lake, South		

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

300.3 CULTURAL FACTORS

300.3.1 Economy

The importance of the County Forests to Wisconsin's economic health continues to rise. County Forests sustain over 60,000 full-time jobs derived from logging, trucking, paper production, manufactured building materials, and lumber. Many other jobs are created in

such businesses as the expanding printing industry and are located far from the forested northland. County Forests contribute to the 24-billion-dollar forest industry in Wisconsin.

In addition, the lands managed by these 30 counties provide an important recreation resource to complement our state's valuable tourism industry. Tourists spend valuable money at local businesses. By providing 2.4 million acres of public recreation land, we bring tourists to our state. As population increases and public access to privately owned forestland decreases, the need for accessible lands unquestionably will assume an ever more important role. More information on the economic impact of the County Forest program can be found at <https://www.wisconsincountyforests.com/>

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 Florence County's economic well-being. Forest industry is the #1 ranked employer in the County. This information can be found at the following link: <https://dnr.wi.gov/topic/forestbusinesses/factsheets.html>.

300.3.2 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, Florence 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.

300.4 OTHER PUBLIC LANDS OWNERSHIP

Florence County Forest shares a common boundary with Wisconsin DNR lands and industrial forest lands with conservation easements for public use held by WDNR. These common boundaries are in multiple locations within Florence County. The Wisconsin DNR and Florence County Forestry and Parks department share office and garage space at the Florence Natural Resource Center in Florence WI. The two departments have a close

working relationship and rely on each other's cooperation to complete projects. Roads and trails are connected without interruption between these public lands providing for a more enjoyable experience for the user groups. Florence County Forestry and Parks department will continue to form and build on these relationships with other adjacent public lands in the best interest of the public.