

MONROE COUNTY FOREST COMPREHENSIVE LAND USE PLAN  
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## **300 DESCRIPTION OF FOREST**

### **300.1 COUNTY FOREST OWNERSHIP**

The County Forest is composed of 14 management compartments ranging in size from 37 acres to nearly 1500 acres. Approximately 43% of the land within the county forest blocking boundary is county owned with most of the remaining fifty seven percent in small private holdings (9,829 acres). A map of the county forest can be found in the Appendix.

### **300.2 NATURAL FEATURES**

#### **300.2.1 Topography**

Monroe County is located in the southwestern part of the state known as the Driftless Area. This area was not occupied by the most recent glacier, leaving the area much as it was except for wind and water erosion. The county consists mostly of a deeply dissected bedrock plateau. The ridgetops are moderately broad and highly dissected. The ridgetop elevations in the county range from about 1,350 feet to about 1,450 feet. The valleys are short, have mostly very steep sides and are underlain by sandstone. The county forest is primarily located in the northern half of the county on hilly land in New Lyme Township and flat land in Lincoln Township. The Lincoln unit was once part of glacial Lake Wisconsin. The northeast corner of the county enters a transition zone between glaciated and unglaciated land.

#### **300.2.2 Geography**

Monroe County has a forested area of approximately 6,827 acres, plus another 613 acres of non-forested area, which includes wetlands, lakes and streams. Approximately 91% percent of the land in the county is classified as forest land. The County Forest contains approximately 7,440 acres.

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

#### **300.2.3 Geology and Soils**

The soils of Monroe 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 on the County Forest range from Boone and Tarr sands in the west portions of the Forest to mucky peat and sands in the east. Detailed soils information is available from the USDA Web Soil Survey ([websoilsurvey.nrcs.usda.gov](http://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 Monroe County Forest lies within the Western Coulee & Ridges and Central Sand Plains Ecological Landscapes. Below are excerpts from Wisconsin Department of Natural Resources' *Ecological Landscapes* page:

Western Coulee and Ridges Ecological Landscape- Windblown loess of varying thickness; alluvium in the floodplains. Organic soils, especially peats, are rare.

Central Sands Plain- Most soils formed from deep sand deposits of glacial lacustrine or outwash origin or in materials eroded from sandstone hillslopes and sometimes with a surface of wind-deposited (aeolian) sand. These soils are excessively drained, with very rapid permeability, very low available water capacity, and low nutrient status. In lower-lying terrain where silty lacustrine material impedes drainage, the water table is very close to the surface. Such areas are extensive in the western part of the Ecological Landscape, where soils may be poorly drained with surfaces of peat, muck or mucky peat. Thickness of peat deposits ranges from a few inches to more than 15 feet.

##### 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. Monroe County Forest does not have any Land Type Associations identified. More information is available at: <https://dnr.wi.gov/topic/landscapes/>

### 300.2.5 Vegetative Cover Types

Approximately 91 percent of the Monroe County Forest land base is forested, and approximately 8 percent of the Monroe County Forest is non-forested. Forested uplands are comprised of primarily oak/scrub oak and red/white pine while lowland hardwoods occupy the forested lowlands. Non-forested includes types such as wetlands, bogs, and grass openings.

#### FORESTED COMMUNITIES

Forested uplands are comprised of primarily scrub oak, jack pine, red pine, and white pine while bottomland and swamp hardwoods 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 forested cover types are made up of a variety of size classes (regeneration, sapling-pole, and saw timber) and structure (canopy, layers, ground vegetation, dead and downed material and inclusions).

Forest cover types associated with the County Forest are:

Aspen – 2 %. Consisting of primarily aspen species often found in combination with paper birch and red maple

Bottomland Hardwoods – 1%

Central Hardwoods – 2 %. Consisting of a mixture of upland hardwood species including red maple, elm, hickory and black cherry.

Red Maple – 5%

Oak – 18 %. Dominated by red oak, white oak, black oak and associated with other hardwoods.

Scrub oak – 41 %. Consisting of a majority of poorer quality oak (often northern pin oak) capable of only fuelwood or cellulose fiber production.

Jack Pine – 2 %. More than 50% jack pine.

Red Pine – 13 %. More than 50% red pine.

White Pine – 14 %. More than 50% white pine.

Swamp Hardwoods – 1 %. More than 50% swamp hardwood species including black ash, red maple, and elm.

Tamarack – 1%

## NON-FORESTED COMMUNITIES

Non-forested habitats are important components of management within the Monroe County Forest. Up-land 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 Monroe 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 frequently 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.

### 300.2.7 Rare and Endangered Resources

A review of the Natural Heritage Inventory (NHI) indicates the presence of several rare species, natural communities and unique natural features on the Monroe 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

Monroe County has 15,496.1 acres involving 16 named lakes, 104 unnamed lakes and flowages and 531.7 miles of streams. Of this total, 273.8 miles are classified as trout streams.

There are few fisheries within the County Forest boundaries. One named lake has a portion of its shoreline under county ownership. In addition, the county owns frontage on one named trout stream totaling .7 miles. Beltz Creek flows into Lake Wazeda at McMullen County Park.

Monroe County also has 36 streams totaling 132.3 miles which are classified as Outstanding and Exceptional Resource Waters including:

- Rullands Coulee (ORW)
- Farmer's Valley Creek
- Soper Creek

*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 Monroe County's economic well-being. The direct economic effect by forest industries in Monroe County in 2020 provided for approximately 383 jobs, or 1.4% of the jobs in the county, and 2.5% of the economic output. Recreation plays a role, as well. 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, Monroe 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

Monroe County Forest shares a common boundary with the Fort McCoy Military Installation, the Jackson County Forest and the Black River State Forest. Monroe County Forest is in close proximity to the Meadow Valley Wildlife Area. Monroe County Forest will continue to form and build relationships with adjacent public lands managers. Collectively, the ownership and management of large adjacent blocks of land provide significant benefits for wildlife habitat.