

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 84 management compartments ranging in size from 34 acres to nearly 1600 acres. Within the county forest boundaries approximately 80 percent of the land is county owned with most of the remaining 20 percent in small private holdings. A map of these compartments can be found in the Appendix.

### **300.2 NATURAL FEATURES**

#### **300.2.1 Topography**

Eau Claire County is in the west central part of the state at about 91 degrees West, 45 degrees North. It is rectangular in shape, being 18 miles from north to south (T25 N to T27N) and 36 miles from east to west (R5W to R10W), a total of 655 square miles. It is comprised of thirteen civil townships having an area of 419,200 acres. The Eau Claire County Forest lies primarily within the Western Coulee and Ridges physiographic region. Small areas in the southeastern and northeastern part of the county lie within the Central Sand Plains and Forest Transition physiographic regions, respectively. The topography of the forest and surrounding area is primarily highly eroded, driftless area and relatively extensive forested landscape. There are no natural lakes in the Western Coulee and Ridges physiographic region, but impoundments are not uncommon. Elevations range from 1,290 to 890 feet above sea level. The terrain ranges from hilly to flat.

#### **300.2.2 Geography**

With its approximate 419,200 acres, Eau Claire County is the 45th largest county in Wisconsin. Approximately 50 percent of the land in the county is classified as forestland. The County Forest, approximately 52,712 acres, is the 15th largest County Forest in the state.

The great majority of the forest (75%) is in the eastern one-half of the county. The remaining portions are found along the Eau Claire River between Augusta and Eau Claire in the northern one-half of the county. Chapter 1000 contains maps showing the location of the County Forest.

### 300.2.3 Geology and Soils

The soils of the Eau Claire County Forest are dry sands and sandy loams over sandstone residuum. Extensive areas of sandy loams are found in the county. Sandy and loamy soils are found in broad flats and along small streams. The Eau Claire River basin is carved through sandstone and transports large amounts of silt and sand. The river was formed by glacial melt waters from the north and deposited alluvial soils in the basin. Menahga sand is the most common soil type. Small areas of glacial till are found in the northeastern part of the county in Wilson and Ludington townships. The glacial till deposits are heavier soils which developed more northern forest type habitat types. These habitat types provide management options different than the rest of the county forest with the dry to moderately dry sandy soils. 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: [Ecological Landscapes of Wisconsin - Wisconsin DNR](#). The Eau Claire County Forest lies within the Central Sand Plains and Western Coulee and Ridges Ecological Landscapes.

Central Sands Plains - Located in central Wisconsin, around a relatively level, sandy, glacial lake plain. This landscape makes up most of the Eau Claire County Forest lands east of Highway 27.

Western Coulee and Ridges – Found in southwest Eau Claire County primarily and much of the private lands in the county. There are small sections of county forest lands west of Highway 27 that display characteristics of this landscape.

### 300.2.5 Vegetative Cover Types

Approximately 86% of the Eau Claire County Forest land base is forested. Forested uplands are comprised of primarily mixed hardwood, aspen, oak, red pine, white pine, and jack pine while bottomland 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.

#### FORESTED COMMUNITIES

Forested cover types are made up of a variety of size classes and structure (canopy, layers, ground vegetation, dead and downed material, and inclusions). Forested communities on the Eau Claire County Forest cover approximately 86% of the Forest.

Forest cover types associated with the County Forest in order of prevalence (% of forested acres) are:

**Oak (32.0%)** - Dominated by red, white, northern pin, and/or black oak and associated with other hardwoods.

**Aspen (17.3%)** - Dominated by quaking and big tooth aspen often with red maple and paper birch associated.

**Jack Pine (8.4%)** - More than 50% jack pine.

**Red Pine (7.7%)** - More than 50% red pine.

**White Pine (10.0%)** - More than 50% white pine.

**Bottomland hardwoods (5.2%)**-Typically floodplain species including silver maple, river birch, elm, cottonwood, and green ash. Includes swamp hardwoods and noncommercial swamp hardwood acres.

**Red Maple (4.0%)** - More than 50% red maple. Often with aspen and white birch.

**Northern Hardwoods (0.0%)**- Consisting of a mixture of upland hardwood species including sugar maple, yellow birch, basswood, ash, and red maple.

**Tamarack (0.01%)** - More than 50% swamp conifer species with tamarack predominating. Percentage includes swamp conifers, swamp hardwoods, and non-commercial swamp.

**White Birch (0.04%)** - Consisting of a majority white birch. Often found in combination with aspen and red maple.

## NON-FORESTED COMMUNITIES

Non-forested communities within the Eau Claire County Forest cover approximately 12.4% of the forest. In broad categories, they are uplands (28%), wetlands (57%), and water (15%).

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 – consists of upland grasses (brome, quack, bluegrass, timothy, big and little bluestem, and Indian grass).

Prairie - ground cover predominantly of prairie plants (Culver's root, lead plant, lupine, big & little bluestem, black eyed susan, coneflower, phlox, goldenrod, puccoon, blazing star, bergamot, coreopsis, fleabane, New Jersey tea, rock cress, spurge, and yarrow.) Herbaceous vegetation - ground cover predominated by herbaceous species with bracken fern, sweet clover, ragweed, stinging nettle, upland aster, goldenrod, blackberries/ raspberries, and prairie dock being common.

Shrub openings - primarily upland sites less than 10% stocked with tree species but having 50% or more of the area stocked with taller growing, persistent shrubs. This includes, but is not limited to, shrubs such as hazel, gray dogwood, juneberry, sumac, chokecherry, and prickly ash.

Rock outcrops and sandbanks - rock outcrops and bedrock material.

### 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 soils indicative of wet conditions.” Wetland communities are a complex association of plants and animals, soils and water levels having special natural values. These fragile systems may rapidly degrade under incompatible uses and unskilled management. Wetlands provide functional values including shoreline and flood protection, groundwater recharge, water quality protection, and animal and plant habitat. It is Eau Claire County policy to preserve, protect, and

manage the wetlands under its jurisdiction in a manner that recognizes the natural values of wetlands and their importance in the environment. The County will:

- Recognize wetland values in management plans, taking reasonable steps to minimize harmful effects.
- Cooperate with the DNR in wetland inventories and in preparation of essential wetland information.
- Maintain control of vital wetlands under its jurisdiction when to relinquish such control would risk substantial site alteration and subsequent degradation of wetland values vital to the area and the state.
- Minimize adverse changes in the quality/quantity of the water flow to nourish wetlands.
- Cooperate with local, state, and national agencies and citizens to increase understanding of the importance of wetlands and the need for land and water stewardship in guiding development decisions.
- Cooperate with the DNR in wetland management activities that would enhance the quality and diversity of wetlands in the county and the region.

Wetlands are the transitional habitats between upland and aquatic systems where the water table is usually at or near the surface, or where the land is covered by shallow water.

Wetland types present include:

Lowland brush – wetlands along or adjacent to waterways where water is present most of the year, but periodic drying allows vegetation to establish, primarily tag alder/ willow.

Deep marshes - wetlands characterized by emergent vegetation such as cattails and pickerel weed and floating leaved plants such as white and yellow water lily and watershield. Water depths of 6 feet are typically found on deep marshes.

Shallow marshes - wetlands characterized by persistent emergent vegetation such as cattails and pickerelweed, etc., and water depths to 1.5 feet.

Sedge meadow - wetlands characterized by sedges and cattails. Surface water depths to 6 inches in winter and early spring, and exposed saturated soil surface in summer.

### 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.

The Eau Claire County Forest is habitat for wildlife common to Wisconsin. No comprehensive survey has been conducted to identify or inventory the fauna occurring on the Forest. It is desirable to conduct a fauna inventory in the next 15 years, with the committee exploring different options for funding.

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. Deer, bear, fox, coyote, fisher, waterfowl, ruffed grouse, turkey, wolves, mustilids, rabbits, beaver and other rodents, and woodcock are common in the forest. A species of note is the Karner Blue Butterfly (a federally listed endangered species) for which the county has a habitat conservation plan. Aspen, jack pine and scrub oak are maintained as early successional species while white pine, better quality oak and red maple create diversity and allow for a mosaic of habitats across the county forest.

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

### 300.2.7 Rare and Endangered Resources

A review of the Natural Heritage Inventory (NHI) indicates the presence of a few rare species, natural communities, and unique natural features on the Eau Claire 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

Eau Claire County has 12 named lakes and flowages and 673 miles of streams. Of this total, 161 miles are classified as trout streams.

Within the County Forest boundaries there is a variety of fishery resources. Approximately two named and nine unnamed lakes have all or portions of their shoreline under county ownership. In addition, the county owns frontage on over 18 named trout streams.

Eau Claire County also has three streams which are classified as Outstanding and Exceptional Resource Waters including:

- Beaver Creek
- Hay Creek
- Sevenmile 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 Eau Claire County's economic well-being. Forest industry is the #20 ranked employer in the County. Tourism is ranked #1. 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, Eau Claire 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. The committee will review the community outreach engagements by the department on a periodic basis.

### 300.4 OTHER PUBLIC LANDS OWNERSHIP

Eau Claire County Forest shares a common boundary with Clark County Forest. Roads and trails are connected without interruption between the public lands providing for a more enjoyable experience for the user groups. Eau Claire County Forest will continue to form and build on these relationships with other adjacent public lands in the best interest of the public.