

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 138 management compartments ranging in size from 400 acres to nearly 1500 acres. A map of these compartments can be found in the Appendix.

300.2 NATURAL FEATURES

300.2.1 Topography

The Burnett County Forest is located in the northwest part of the state. The topography of the forest and surrounding area has glacial origin. The glaciers eroded hilltops and filled valleys, thus reducing relief. Elevations range from 760 feet above sea level in the southwest part of the county forest to 1500 feet above sea level in the southeast corner of the county. The terrain ranges from generally level to gently rolling. The St. Croix River flows from the northeast corner of the County to the southwest corner and receives flow from the Namekagon, Yellow, Clam and Wood Rivers as well as many other smaller creeks. The St. Croix River is the western boundary for most of Burnett County and the State of Wisconsin.

300.2.2 Geography

Burnett County is the 28th largest county in Wisconsin with a land area of approximately 521,900 acres as well as another 41,600 acres of lakes and streams. Approximately sixty-four percent of the land in the County is classified as forestland. The County Forest, which contains 111,145.92 acres, is the tenth largest county forest in the state. The following is a listing of Burnett County Forest lands by Township as of October 15, 2019:

<u>TOWNSHIP</u>	<u># ACRES</u>	<u>%</u>
Anderson	14,234.08	12.81
Blaine	28,271.91	25.44
Daniels	600.00	54
Jackson	4,105.46	3.69
Lincoln	4,316.98	3.88
Meenon	744.52	.67
Oakland	304.84	.27
Roosevelt	3,861.31	3.47
Rusk	5,881.23	5.29
Sand Lake	5,719.87	5.14
Siren	63.39	.06
Swiss	20,795.36	18.71
Union	9,912.09	8.92
Webb Lake	9,673.64	8.70
West Marshland	2,661.24	2.39
TOTAL	111,145.92	100%

Appendix 1000 contains [link to maps](#) showing the location of the County Forest.

300.2.3 Geology and Soils

The soils of Burnett 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. Most of the northern and western landscape of the County is characterized by pitted outwash plains marked by irregular depressions and potholes. Soils here are composed of stratified acidic sand and gravel soils from 50 to 150 feet deep over bedrock. A large portion of central Burnett County has been influenced by Glacial Lake Grantsburg. Landforms here are relatively level and soils are poorly to moderately drained and composed of well sorted, fine textured sands, silts, clays, and lacustrine deposits. This region extends from Grantsburg east through Siren and Webster to north of Hertel. The southern and eastern portions of the County have rolling topography resulting from

glacial moraine deposits. Soils here consist of unsorted, unstratified deposits of clay, silt, sand, gravel, and boulders. Upland soils originating from these deposits generally are good quality, productive soils.

Several small, scattered locations have sand dune terrain. Soils here are predominately wind blown, excessively drained sands covering acid fine sand soils. Vegetation often is sparse on these soils. Most of these areas occur in western Burnett County.

Exposed bedrock occurs at scattered locations along the St. Croix River and in the northern portions of the County. At these locations, bedrock has been exposed by glacial and weathering forces. 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 Burnett County Forest lies within the following Ecological Landscape(s)

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

Northwest Lowlands – Found in far northwest Wisconsin. Soils generally are wet, with forest types dominated by sedge meadows, bogs, and alder.

Forest Transition- Found mostly throughout the middle of Wisconsin. Forest types northern mesic and oak forests.

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 Burnett County Forest. Amsterdam Sloughs, Crex, Crex Barrens & Wetlands, Fish Lake, Fish Lake Barrens & Wetlands, Namekagon Barrens, St. Croix Ridge and the Yellow River North. More information is available at:

<https://dnr.wi.gov/topic/landscapes/index.asp?mode=detail&Landscape=11>

(or links specific to other landscapes)

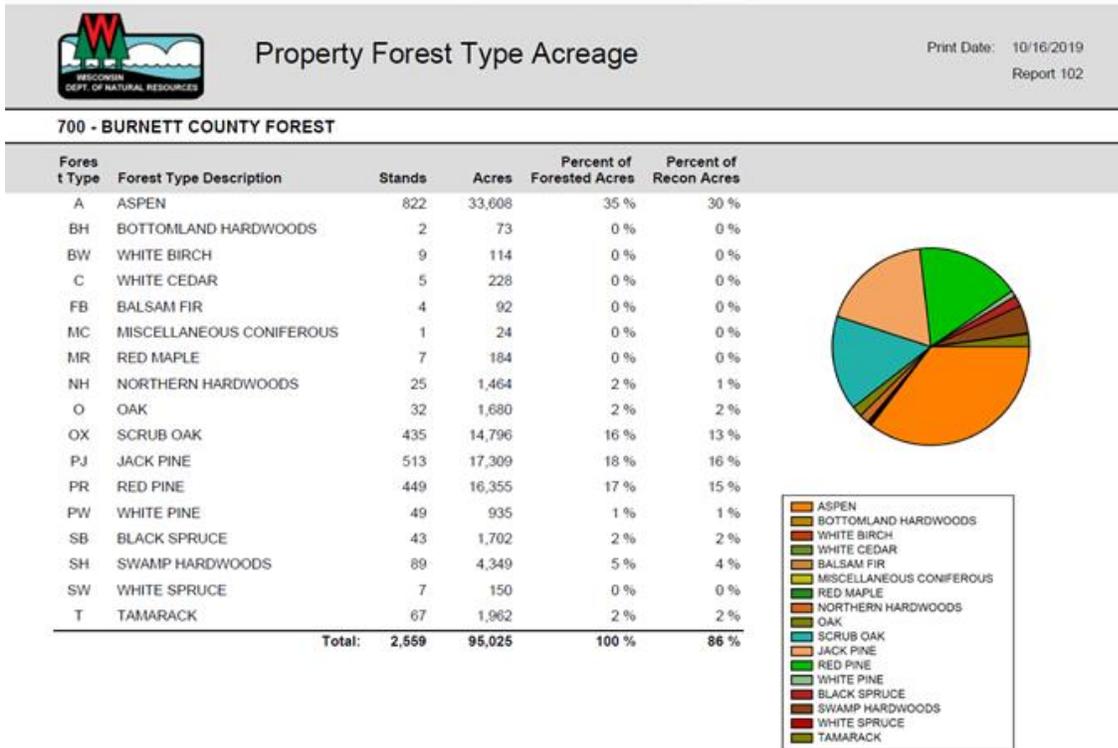
300.2.5 Vegetative Cover Types

Approximately 86% of the Burnett County Forest Land base is forested. The remainder is primarily a wild but open non-forest landscape comprised of wetlands, lowland shrubs, upland shrubs, bogs, lakes, streams, grassy openings, roads, rock outcroppings, and utility right-of-ways. Four major forest types account for 74% of the total forest acreage: jack pine 16%; aspen 30%; scrub oak 13%; and red pine 15%, while (*fir-spruce, lowland hardwoods, tamarack, cedar*) occupy the forested lowlands.

FORESTED COMMUNITIES

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:



NON-FORESTED COMMUNITIES

Non-forested habitats are important components of management within the 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 sites 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 800, 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 Burnett County to preserve, protect, and manage wetlands under its jurisdiction in a manner that recognizes the natural values of wetlands and their importance on the environment. Scientists 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 are dominant in these areas, but they 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 800 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 staff 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 Burnett 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:

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 Burnett 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. This data is 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. This data is 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

Burnett County has 563,500 acres including 208 named lakes, many flowages, 10 major rivers and 145 miles of streams. Of this total, 66 miles are classified as trout streams. Within the Forest boundaries, there is a variety of fishery resources as well. Approximately 27 named and 9 unnamed lakes have all or portions of their shoreline under County ownership. In addition, the County owns frontage on 10 named trout streams totaling over 23 miles, 6 warm water streams totaling 11 miles, and 5 major rivers totaling 32 miles.

Burnett County also has many streams and lakes which are classified as Outstanding and Exceptional Resource Waters including:

North Fork Clam River, South Fork Clam River, Namekagon River, St. Croix River, Tributaries to the North and South Forks of the Clam River, Big McKenzie Lake, Big Sand Lake, Sand Lake (T40N R15W S25).

Exceptional (Class I Trout Stream portions):

Bear Branch, Benson Branch, Brant Branch, Clemens Creek, Dody Branch, Dogtown Creek, East Branch, Ekdahl Branch, Hay Creek, Jones Creek, Kettle Branch, Krantz Creek, Montgomery Creek, Moore Farm Creek, Nelson Creek, Perkins Creek, Pine Branch, Rand Creek, Sand Creek, Sioux Portage Creek, Spencer Creek, Spring Branch, Spring Creek, Unnamed Tributary to Hay 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 other businesses such 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 29 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 even 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 Burnett County's economic well-being. Forest industry is the #8 ranked employer in the County. Recreation is ranked #3. 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, Burnett 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

Burnett County Forest shares a common boundary with many other DNR properties, Governor Knowles State Forest, Crex, Fish Lake and the Namekagon Barrens Wildlife Properties. Roads and trails are connected without interruption between the public lands providing for a more enjoyable experience for the user groups. Burnett County Forest will continue to form and build on these relationships with other adjacent public lands in the best interest of the public.