

CHIPPEWA COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

CHAPTER 300

DESCRIPTION OF FOREST AND MANAGEMENT PLANNING

<u>Section</u>	<u>Subject</u>	<u>Page</u>
300	DESCRIPTION OF FOREST.....	2
300.1	COUNTY FOREST OWNERSHIP.....	2
300.2	NATURAL FEATURES.....	2
300.2.1	Topography.....	2
300.2.2	Geography.....	2
300.2.3	Geology & Soils.....	2
300.2.4	Ecological Landscapes	3
300.2.4.1	Land Type Associations.....	4
300.2.5	Vegetative Cover Types.....	4
300.2.6	Fish and Wildlife.....	9
300.2.7	Rare and Endangered Resources.....	10
300.2.8	Water.....	11
300.3	CULTURAL FACTORS.....	11
300.3.1	Economy.....	11
300.3.2	Education and Research.....	12
300.4	OTHER PUBLIC LANDS OWNERSHIP.....	12

300 DESCRIPTION OF FOREST

300.1 COUNTY FOREST OWNERSHIP

The County Forest is composed of 46 management compartments ranging in size from 275 acres to nearly 2,295 acres. Within the County Forest Blocking Boundary, approximately 72 percent of the land is county-owned with most of the remaining 28 percent in private holdings. A map of these compartments can be found in the Appendix.

300.2 NATURAL FEATURES

300.2.1 Topography

The Chippewa County Forest, located in the west central part of the State, lies primarily within the Northern Highland physiographic region 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 1540 feet in the northern part of the County Forest to 790 feet in the south. The terrain ranges from flat in the Ruby area to hilly and steep terrain in the Birch Creek area of the County Forest.

300.2.2 Geography

Chippewa County has a land area of approximately 645,000 acres, plus another 21,000 acres of water included in lakes, rivers and streams. Approximately 42 percent of the land in the County is classified as forest land. The County Forest, which contains approximately 34,500 acres lies mostly in the northern 1/3 of the County.

300.2.3 Geology and Soils

The soils of Chippewa County have been derived largely from the weathering of the glacial till 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. During the Wisconsin Glaciation, the Chippewa Lobe formed the textbook examples of end moraines, kettle lakes, hummocks, ice-walled lake plains, outwash plains, tunnel channels and eskers. The earlier Perkinstown Phase of the

lobe formed the Perkinstown Moraine and Copper Falls Till Plain across the northeastern section of the County. The Late Chippewa Phase of the lobe formed the Chippewa Moraine across the north central section of the County.

The soil types on the County Forest range from Amery-Santiago soil association in the Western Birch Creek Compartment of the Forest to Spencer-Almena-Magnor in the Eastern Ruby Compartment. Amery soils are the most common type and are described as well drained sandy loams found on ridgetops, side slopes and knolls on moraines. Magnor soils are described as somewhat poorly drained silt loams found on nearly level to gently sloping ground moraines. Detailed soils information is available from the USDA Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>).

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 Chippewa County Forest lies mostly within the North Central Forest Ecological Landscape with smaller scattered Special Management Units within the Forest Transition Ecological Landscape, which straddles the Tension Zone dividing the major northern and southern ecoclimatic zones.

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

Forest Transition – Found along the northern border of the Tension Zone. Soils are diverse, ranging from sandy loams to shallow silt loams with forests dominated by mesic forest types such as northern hardwood, aspen, oak and lowland hardwoods.

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 Chippewa County Forest: 212Xd04 Chippewa-Flambeau Plains, 212Xd05 Jump River Ground Moraine, 212Xe03 Maple Hill Moraines, 212Xe05 Perkinstown Moraines and 212Qb04 Chetek Plains, 212Qb06 New Auburn Moraines. More information is available at:

- 1.) <https://dnr.wi.gov/topic/landscapes/index.asp?mode=detail&Landscape=10>
- 2.) <https://dnr.wi.gov/topic/landscapes/index.asp?mode=detail&Landscape=11>

300.2.5 Vegetative Cover Types

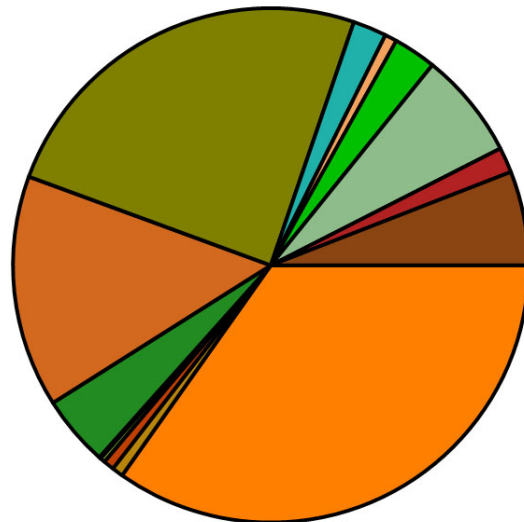
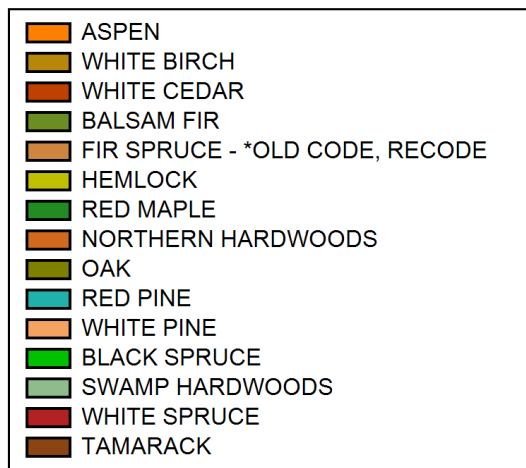
Approximately seventy-seven percent (77%) of the Chippewa County Forest land base is forested, and approximately twenty-three percent (23%) is non-forested. Forested uplands are comprised of primarily aspen (35%), oak (25%) and northern hardwoods (15%) while swamp hardwoods (7%), Tamarack (6%), Spruce (5%) and Cedar (1%) occupy the forested lowlands. Non-forested areas includes types such as bogs (51%), open water (21%), alder 10%, marsh/grasses (9%) and right-of-ways (4%).

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:

Forest Type	Forest Type Description	Stands	Acres	Percent of Forested Acres	Percent of Recon Acres
A	ASPEN	420	9,031	35 %	27 %
BW	WHITE BIRCH	8	185	1 %	1 %
C	WHITE CEDAR	8	174	1 %	1 %
FB	BALSAM FIR	4	85	0 %	0 %
FS	FIR SPRUCE - *OLD CODE, RECODE	1	2	0 %	0 %
H	HEMLOCK	1	24	0 %	0 %
MR	RED MAPLE	54	1,189	5 %	4 %
NH	NORTHERN HARDWOODS	149	3,788	15 %	11 %
O	OAK	205	6,434	25 %	19 %
PR	RED PINE	54	554	2 %	2 %
PW	WHITE PINE	22	199	1 %	1 %
SB	BLACK SPRUCE	18	698	3 %	2 %
SH	SWAMP HARDWOODS	84	1,744	7 %	5 %
SW	WHITE SPRUCE	27	414	2 %	1 %
T	TAMARACK	55	1,538	6 %	5 %
Total:		1,110	26,059	103 %	79 %



Forest cover types can change over time and the forest structure of the County Forest in the past, present and future are:

Timber Text	Acres Past	Acres Present	Acres Future
(1976)		(2020)	
ASPEN	11,028	9,031	8,959
BALSAM FIR	0	85	129
BLACK SPRUCE	368	698	631
FIR SPRUCE - *OLD CODE, RECODE	695	2	0
HEMLOCK	3	24	0
JACK PINE	6	0	0
NORTHERN HARDWOODS	3,899	3,788	6,372
OAK	5,039	6,434	3,811
RED MAPLE	0	1,189	1,167
RED PINE	513	554	542
SWAMP CONIFER - *OLD CODE, RECODE	121	0	0
SWAMP HARDWOODS	1,966	1,744	1,744
TAMARACK	1,148	1,538	1,524
WHITE BIRCH	2,026	185	173

WHITE CEDAR	117	174	174
WHITE PINE	0	199	350
WHITE SPRUCE	0	414	483
Total:	26,929	25,986	25,986
CAMPGROUND	0	26	26
COOL SEASON GRASS	0	30	0
EMERGENT VEGETATION - *OLD CODE, RECODE	0	108	108
EMERGENT WETLAND	0	126	0
FARMLAND	0	7	7
LOWLAND BRUSH - *OLD CODE, RECODE	2,070	94	94
LOWLAND BRUSH - ALDER - *OLD CODE, RECODE	1,074	711	711
LOWLAND GRASS - *OLD CODE, RECODE	0	417	417
MARSH - *OLD CODE, RECODE	3,964	350	350
MINOR LAKE	0	719	704
MINOR STREAM	0	41	41
MUSKEG - BOG	0	3,992	3,949
PARKING AREA	0	3	1
RECREATIONAL	0	1	1
RIGHT OF WAY	0	295	292
TRUE GRASSES - *OLD CODE, RECODE	10	0	0
UPLAND GRASS - *OLD CODE, RECODE	39	0	0
WATER	0	926	926
WETLAND SHRUB - ALDER	0	23	0
Total:	7,157	7,843	7,627

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 ten percent (10%) stocked with tree species but having fifty percent (50%) or more of the area stocked with taller growing, persistent shrubs. This includes hazel, dogwood, juneberry, sumac, alder, willow, and prickly ash.

Lowland Non-Forest

Lowland non-forest areas of the County Forest include:

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 Chippewa County to preserve, protect, and manage wetlands under its jurisdiction in a manner that recognizes the natural values of wetland 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 in the County Forest include:

Aquatic bed-plants - growing entirely on or in a water body no deeper than six (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 often 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, which include bogs and forested floodplain complexes, are characterized by trees twenty (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.

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 works 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 Chippewa 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: *Habitat Management of Wildlife Flowages in the Chippewa County Forest*, *Biotic Inventory and Analysis of the Chippewa County Forest*, *Biotic Inventory of Five Wildlife Flowages Within the Chippewa County Forest*, and *Chippewa County Forest Fish Community Assessment*.

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 Chippewa 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

Chippewa County has 21,000 acres of water resources involving 168 named lakes and flowages, 1,358 unnamed lakes and flowages and 504 miles of streams. Of this total, 173 miles are classified as trout streams.

Within the County Forest boundaries, there is a variety of fishery resources. Approximately 84 named and 235 unnamed lakes have all or portions of their shoreline within the County Forest Blocking Boundary. In addition, the County owns frontage on seven (7) named streams totaling over ten (10) miles. A complete inventory of the surface water resources in the Chippewa County Forest Blocking Boundary can be found in the Appendix, Chapter 1000.

Chippewa County also has 22 streams totaling 130 miles, which are classified as Outstanding and Exceptional Resource Waters, none of which occur within the County Forest Blocking Boundary.

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. By providing 2.4 million acres of public recreation land, we bring tourists to our State, and tourists support local businesses. As the 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 in the Forest and the forest products it produces, are vitally important to

Chippewa County's economic well-being. The forest industry is ranked #7 in number of employees in the County and recreation is ranked #2. Much of 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, Chippewa 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

Chippewa County Forest shares a common boundary with the Chippewa Moraine State Recreation Area, a part of the Ice Age National Scientific Reserve. There are other lands owned by the State adjacent and within the County Forest Blocking Boundary, particularly around Firth Lake. Where feasible roads and trails are connected without interruption between the public lands, this provides for a more enjoyable experience for the user groups. Chippewa County Forest will continue to form and build on these relationships with other adjacent public lands in the best interest of the public.