COUNTY FOREST COMPREHENSIVE LAND USE PLAN

TABLE OF CONTENTS

REV: 5/18/2021

CHAPTER 800

INTEGRATED RESOURCE MANAGEMENT

800 CHAPTER OBJECTIVES

To introduce and communicate to the public, the County Board of Supervisors, and to the Wisconsin DNR, the integrated resource approach that forestry, wildlife, and other natural resource staff will use on the Eau Claire County Forest during this planning period.

805 INTEGRATED RESOURCE MANAGEMENT APPROACH

Integrated Resource Management is defined as: "the simultaneous consideration of ecological, physical, economic, and social aspects of lands, waters and resources in developing and implementing multiple-use, sustained yield management" (Helms, 1998).

This balance of ecological, economic, and social factors is the framework within which the Eau Claire County Forest is managed.

The working definition of Integrated Resource Management means, in large part, keeping natural communities of plants and animals and their environments healthy and productive so people can enjoy and benefit from them now and in the future.

The remainder of this chapter is written to help communicate how the Forest is managed on an integrated resource approach.

810 SUSTAINABLE FORESTRY

"the practice of managing dynamic forest ecosystems to provide ecological, economic, social and cultural benefits for present and future generations" NR 44.03(12) Wis. Adm. Code and s.28.04(1)(e), Wis. Stats.

For the purpose of this chapter, sustainable forestry will be interpreted as the management of the Forest to meet the needs of the present without knowingly compromising the ability of future generations to meet their own needs (economic, social, and ecological) by practicing a land stewardship ethic which integrates the

growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, and wildlife and fish habitat. This process is dynamic, and changes as we learn from past management.

810.1 TOOLS IN INTEGRATED RESOURCE MANAGEMENT

810.1.1 Compartment Recon

The County will support and utilize the compartment reconnaissance procedures as set forth by the DNR Public Forest Lands Handbook 2460.5. WisFIRS serves as the database for housing recon information.

810.1.2 Forest Habitat Classification System

The Forest Habitat Classification System (*A Guide to Forest Communities and Habitat Types of Southern Wisconsin Second Edition; Kotar, et al*.) is a natural classification system for forest communities and the sites on which they develop. It utilizes systematic interpretation of natural vegetation with emphasis on understory species.

810.1.3 Soil Surveys

Forestry staff's knowledge of forest ecology and their experience across the landscape can assist in associating forest habitat types and site indices with soil type information. These associations can be beneficial in determining management prescriptions for specific sites. WisFIRS contains soil survey data, and this information can also be found on the NRCS website-based soil survey.

810.1.4 Ecological Landscapes of Wisconsin

The Wisconsin DNR uses Ecological Landscapes of Wisconsin (WDNR Handbook 1805.1) which is an ecological land classification system based on the National Hierarchical Framework of Ecological Units (NHFEU). Ecological landscapes distinguish land areas different from one another in ecological characteristics. A combination of physical and biological factors including climate, geology, topography, soils, water, and vegetation are used. They provide a useful tool and insight into ecosystem management. Land areas identified and mapped in this manner are known as

ecological units.

Generally accepted silvicultural systems are prescribed on a stand level scale, in recognition of the position within an ecological landscape.

810.1.5 Integrated Pest Management

"The maintenance of destructive agents, including insects, at tolerable levels, by the planned use of a variety of preventive, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable."

The Committee has the authority to approve and direct the use of pesticides and other reasonable alternatives in an integrated pest management program on the Forest. Refer to Chapter 600 (610.3) for more detailed discussion and integrated pest management strategies.

810.1.6 Best Management Practices for Water Quality

The most practical and cost-effective method to assure that forestry operations do not adversely affect water quality on the Eau Claire County Forest is to utilize "best management practices" (BMP's) as described in *Wisconsin's Forestry Best Management Practices for Water Quality. Publication number FR-093.*

Eau Claire County will use BMP's on the Forest with the understanding that the application of BMP's may be modified for specific site conditions with guidance from a forester or other natural resource professional. Modifications will provide equal or greater water quality protection or have no impact on water quality. Any deviation from BMP's will be documented in the timber sale be available for review by the Committee. Areas with highly erodible soil types, proximity to streams or lakes, or steep slopes may require mitigating measures in excess of those outlined in the manual. All Eau Claire County employees practicing forestry will receive BMP training. Additionally, Eau Claire County will encourage BMP training of all logging contractors that operate on County timber sales.

810.1.7 Prescribed Fire

Prescribed burning on the County Forest may play an important role in management. Many of the plant communities present today are the result of wildfires.

As the needs are presented to regenerate or maintain timber types or other plant communities, the Committee will examine the costs and benefits of each opportunity. Increased regulations, the county's cost of completing the burn, and the risk of breakouts and uncontrolled fires will have to be considered with any benefits of vegetation management through prescribed burning.

All prescribed burning will be done in accordance with Wisconsin State Statutes 26.12, 26.14, and the DNR Prescribed Burn Handbook 4360.5 and in cooperation with the Department of Natural Resources per section 605.5 of this plan.

810.1.8 Outside Expertise, Studies and Survey

Additional data necessary to make management decisions on the County Forest will be sought from agencies or individuals, who have the best capability and technical expertise, including, but not limited to:

- Water Resources: WDNR
- Wildlife Resources: WDNR
- Soil Resources: NRCS
- Mineral Resources: WDNR
- Wetland Resources: WDNR, Army Corps of Engineers, County Zoning
- Navigable Streams: WDNR, Army Corps of Engineers, County Zoning
- Floodplains: County Zoning
- Cultural Resources: WDNR, State Historical Society
- Entomology / Pathology: WDNR
- Endangered Resources: WDNR
- Forestry: Cooperative Field Trials, see WDNR website
- Other subjects as needed

810.1.9 Local Silvicultural Field Trials

To date, numerous field trials have been completed or are ongoing on the Eau Claire County Forest. These trials include:

- UWSP Crop Tree Release Project

  Apply newly developed crown release guidelines by Dr. Demchik et. al (unpublished at beginning of project in 2016) to field sites that can be revisited. Marked by UWSP students and Dr. Demchik.

- UWSP DMAP Project

  Work with UWSP to develop a DMAP (Deer Management Assistance Program) area with educational signs for the public.

- Oak Shelterwood Prescribed Burn and Regeneration Monitoring

  2 red oak stands consisting of 45 acres that regeneration is being monitored before and after prescribed burns, using the DNR's Forest Regeneration Monitoring (FRM) program.

- Santala Experimental Pine Plantation

  1 acre of unmanaged red pine plantation. At final harvest of the stand, the volume from the unmanaged acre will be scaled separately and used for educational purposes. The stand will be replanted and 1 acre will be left unmanaged.

- Aerial seeding of Jack Pine

  Site prep the stand being seeded by disc trenching, then aerial seed jack pine, rather than hand seed or planting seedlings.

- Deer Exclosures

  There are six deer exclosures located on the County Forest. They are located in clearcuts and shelterwoods to show the effects of deer browse.

- Floodplain silviculture

  Use of different silvicultural techniques in floodplains. Thinning, group selection, patch clearcuts, and conversion to uneven age management.

815 MANAGEMENT CONSIDERATIONS TO REDUCE LOSS

815.1 RISK FACTORS

815.1.1 Wind

Wind damage on the forest will be evaluated as quickly as possible after the event. If accessible, the timber will be salvage by whatever means practical. Large acreages may be set up as single timber sales. Smaller areas may be incorporated into an existing sale if the contractor agrees. Wind damage trees could be used for firewood sales within County Campgrounds as well.

815.1.2 Flooding

In the past flooding has not been a major issue on Eau Claire County forest, but that may change if we continue to receive above average annual precipitation. It may be necessary to harvest stands earlier in their rotation age in order salvage flooded timber, while also looking at other regeneration options if certain areas continue to flood on a regular basis.

815.1.3 Fire

Within Eau Claire County there are large blocks of contiguous forest land; this land is prone to catastrophic fires under the right environmental conditions. A vast network of county forest roads, woods roads and recreational trails are present throughout the county. These travel ways will serve as access for fire suppression equipment, while also serving as firebreaks. All DNR forestry staff have at least basic wildland suppression training and carry suppression equipment on their trucks during dry conditions. The Wisconsin DNR has the primary wildfire suppression duties on virtually all Eau Claire County forest lands. However, DNR works and relies heavily on several partnering volunteer fire departments as well to complete these suppression tasks. The DNR has 4 fire suppression staff and equipment stationed out of the Augusta Ranger Station.

Equipment includes but is not limited to one Type 6 engine, one Type 8 Engine, two Type 4 Engines with tractor plows, one UTV and a surplus of wildland hose, pumps and hand tools.

815.1.4 Climate Change and Sustainability

Eau Claire County recognizes the science of human caused climate change. The County has pledged to achieve “carbon neutrality” by the year 2050.

Management of the Eau Claire County Forest plays a very significant role in achieving carbon neutrality. The Department will use best practices to reduce carbon emissions and to increase carbon sequestration. These best practices are evolving with state, national and global research. The department will actively seek the latest science to evaluate implementation at a local level. Such activities will likely include:

- Use of lower emission vehicles by staff
- Requiring some yet to be determined emission standards for forest harvest machinery
- Evaluation forest age vs. carbon sequestration, and using increased sequestration as a criterion for determining harvest schedules
- Evaluating harvest debris practices that may increase sequestration
- Evaluating and favoring species which may increase sequestration
- Evaluating and favoring species that may be optimal for longer/warmer growing seasons and large rain events
- Preventing the introduction and establishment of invasive plant species

The Department will designate a member of staff to be the Department’s lead in continuing to stay abreast of evolving research on these topics and for recommending trials or at scale implementation new practices. This person is expected to devote some portion of work time for continuing education, seminars, and academic research. The Department also expects that the DNR would provide an annual briefing to the Department and oversight committee on these topics. The Department will work closely with the Recycling and Sustainability Coordinator to achieve carbon neutrality goals.

815.1.5 Timber Markets

Markets for raw forest products are highly variable and can change quickly. In the time it takes to establish, advertise, and then harvest a sale the markets have likely changed several times. The Eau Claire County Forest will strive to provide a variety of species at different age classes during bid openings. This approach will provide contractors with diverse products for the quickly changing marketplace. The Eau Claire County Forest will work on having an up to date and accurate schedule of its forest harvesting practices. This will allow for stands that are not currently marketable to be scheduled on a later date, while limiting loss of production.

820 PLANT COMMUNITIES MANAGEMENT

Eau Claire County recognizes the importance of maintaining the diversity of the forest under an ecosystem approach. The process involved in making management decisions to encourage or not encourage specific species or communities is complex. It includes an understanding of:

- Objectives of the County
- Integration of landforms, soils, climate, and vegetative factors
- Habitat classification
- Past, present, and future desired condition
- Surrounding ownership patterns and general objectives
- Wildlife habitat and other values
- Social needs

820.1 SILVICULTURAL PRACTICES/TREATMENTS

Silviculture is the art and science of controlling forest composition, structure, and growth to maintain and enhance the forest's utility for any purpose. These practices are based on research and general silviculture knowledge of the species being managed. The goal is to encourage vigor within all developmental stages of forest stands, managed in an even aged or uneven aged system. The application of silviculture to a diverse forest needs a unified, systematic approach. The DNR Public Forest Lands Handbook (2460.5) and DNR Silvicultural Guidance will be used as guidelines for management practices used on

the County Forest.

820.1.1 Natural Regeneration

Where feasible, natural regeneration will be encouraged using silvicultural methods that promote regrowth and recruitment of the forest. In general, the particular silvicultural method chosen will depend on the biological functions of the target species or forest type.

820.1.1.1 Clearcutting/Coppice

Clearcutting is a silvicultural method used to regenerate shade intolerant species. Complete, or nearly complete removal of the forest canopy will stimulate the regeneration and growth of species such as aspen, jack pine and white birch. This method is also used as a final rotation removal in species such as red oak, red pine and others. Tree retention guidelines are followed when prescribing clearcut or coppice cuts.

820.1.1.2 Shelterwood / Seed Tree

Shelterwood harvest is a method used to regenerate mid-shade tolerant and shade tolerant species. Partial canopies stimulate regeneration, enhance growth, and can provide seed source. Canopies are eventually removed. This method is used for white birch, white pine, red oak, and northern hardwood (when managing even aged).

820.1.1.3 All Aged Regeneration Harvests

All aged regeneration harvests are used in shade tolerant species. Gaps in the forest canopy allow regeneration to occur throughout the stand. Over time, multiple entries into the stand will create multiple age class structure with the intent of creating a fully regulated stand. All aged regeneration harvests may be prescribed in the form of single tree selection, group selection or patch selection. This method is used in northern hardwood and occasionally in swamp hardwoods (when managing for all aged)

820.1.1.4 Prescribed Burning

Prescribed burning may be utilized as a tool to promote regeneration. Several forest types in Eau Claire County are ecologically tied to fire. Burning may create seeding conditions or release regeneration from competing vegetation. Prescribed fire may be used for regeneration of red oak, jack pine or white pine.

820.1.1.5 Soil Scarification

Scarification is a technique used to prepare a seedbed beneath forest stands scheduled for harvest and regeneration. This mechanical disturbance that exposes bare mineral seedbeds and creates conditions necessary for regeneration of pine species. Disturbance that mixes seed into duff and soil layers creates optimal conditions for regeneration of oak, white birch, fir, and others. Eau Claire County utilizes root rakes, straight blades, and anchor chains for soil scarification.

820.1.1.6 Other

Other natural regeneration techniques may be considered where necessary and appropriate. New methods for natural regeneration are continually tested for effectiveness.

820.1.2 Artificial Regeneration

When natural regeneration fails, or when tree species present do not coincide with management objectives for the site, artificial means will be employed to establish a desirable stand of trees. Artificial regeneration on a site usually requires some form of site preparation followed by seeding or planting.

820.1.2.1 Mechanical Site Preparation

Mechanical site preparation includes the use of soil disturbance equipment such as a disc, roller chopper, patch scarifier, disk trencher or V-plow prior to tree planting or seeding. These types of equipment are used to reduce logging debris to a smaller size, incorporate debris into the soil, clear brush and debris from the site, and to reduce competition from other vegetation.

820.1.2.2 Chemical Site Preparation

Herbicide application can be an effective means of controlling unwanted vegetation to establish seedlings or plantations. It should be used sparingly and in situations where mechanical treatment is not expected to provide the level of vegetative control needed. Chemical will be applied in strict accordance with label recommendations, requirements, and under the oversight of a certified applicator. Herbicides will normally be applied with motorized, ground-based equipment, hand applications, or aerially. A written prescription for each herbicide application will be prepared and kept on file.

820.1.2.3 Prescribed Burning

Prescribed burning for site preparation can be used to reduce logging debris, clear the site, reduce competing vegetation, and to release nutrients into the soil.

820.1.2.4 Tree Planting / Seeding

Both machine and/or hand planting/seeding will be utilized to insure adequate regeneration. The selection of species will be determined according to the specific management objectives and capabilities of each site. Planting or seeding will primarily occur in areas where natural regeneration is inadequate or conflicts with the management goals of the site. Eau Claire County will make all reasonable efforts to source seeds/seedlings from local genetics.

820.1.3 Intermediate Treatments

Intermediate treatments are those practices used to enhance the health and vigor of a forest stand. In general, intermediate treatments are applied to forest stands managed as even aged.

820.1.3.1 Mechanical Release

Mechanical release is the removal of competing vegetation by means other than herbicide or fire. Mechanical may include releasing young pine plantations from competing vegetation using chain saws or other hand-held equipment; or mowing

to release regeneration.

820.1.3.2 Chemical Release

Chemical Release is the removal of competing vegetation from desirable trees using herbicides. It should be used sparingly and in situations where mechanical treatment is not expected to provide the level of vegetative control needed. Chemical will be applied in strict accordance with label recommendations, requirements and under the oversight of a certified applicator. A written prescription for each herbicide application will be prepared and kept on file.

820.1.3.3 Non-Commercial Thinning (TSI)

In general, most thinning needs are accomplished through commercial harvest operations. Non-commercial thinning may be considered if the individual site requirements, funding and/or available labor make it desirable.

820.1.3.4 Thinning / Intermediate Cuts

Management of some even aged forest types necessitates the use of commercial thinning, also known as intermediate harvests, to maintain forest health and vigor. Thinning is generally prescribed in forest types such as red pine, red oak, and in cases of even aged hardwood management. Thinning may be prescribed on other even aged types as appropriate and where feasible. Intermediate harvests include prescriptions for residual densities, marking priorities, spacing, crown closure, diameter distribution, or other measurements.

820.1.3.5 Pruning

Pruning is the removal of limbs from lower sections of trees to increase log quality. Major pruning efforts were conducted in the past, but it is not generally recognized as economically viable on the forest.

820.2 SILVICULTURAL PRESCRIPTIONS

820.2.1 Even-Aged Management

A forest stand composed of trees having relatively small differences in age. Typical

cutting practices include clear cutting, shelterwood cutting and seed-tree cutting. Even aged management is generally required to manage shade intolerant, early successional forest types.

820.2.1.1 Aspen

These are types where aspen trees comprise of more than 50% of the stems. On the forest, aspen types may be dominated by quaking or big tooth aspen or a combination of both. Aspen stands contain a wide variety of associated hardwood and conifer species.

Shade tolerance:	Intolerant
Habitats:	PVHa, PVGy
Intermediate treatments:	None
Median rotation age:	50
Primary regeneration method:	Natural
Natural Harvest method:	Coppice
Habitat value:	Early successional related species
Economic value:	Fiber production / bolts
Insect disease considerations:	*Hypoxylon* and other cankers
Trends:	General declines on statewide acreage
Landscape considerations:	Retain/increase acreages where possible

820.2.1.2 Jack Pine

These are types where jack pine makes up more than 50% of the stems. Common associates in Eau Claire County are pin oak, red pine, white pine, aspen, and white birch.

Shade tolerance:	Intolerant
Habitats:	PVGy, PVHa
Intermediate treatments:	None
Median rotation age:	50
Primary regeneration method:	Natural or artificial
Harvest method:	Clearcutting
Habitat value:	Early successional related species
Economic value:	Fiber production
Insect disease considerations:	Bud worm
Trends:	Steady declines on statewide average
Landscape considerations:	Maintain/increase acreages where possible

820.2.1.3 Red Pine

Red pine comprises 50% or more of the stems. In mixed pine stands, red pine is predominant. In Eau Claire County common associated species include white pine, jack pine, aspen, and oak.

Shade tolerance:	Intolerant
Habitats:	PVGY, PVHa, PVRh
Intermediate treatments:	Thinning
Median rotation age:	70
Primary regeneration method:	Artificial
Harvest method:	Clearcut
Habitat value:	Shelter and thermal cover
Economic value:	Fiber production, bolts/saw and utility poles
Insect disease considerations:	Pocket decline & Heterobasidion Root Rot
Trends:	Steady
Landscape considerations:	Maintain or increase acreage where possible

820.2.1.4 White Pine

These are types where white pine makes up more than 50% of the stems. Common associates in Eau Claire County are red pine, jack pine, aspen, white birch, red maple, red oak, northern pin oak, black oak, and white oak.

Shade tolerance:	Intermediate
Habitats:	PVGy, PVHa, PVRh
Intermediate treatments:	Thinning
Median rotation age:	100
Primary regeneration method:	Natural
Harvest method:	Seed tree, Shelterwood, Overstory removal
Habitat value:	Cavity trees, thermal cover & super-canopy features
Economic value:	Fiber, bolts sawtimber/cabin logs
Insect disease considerations:	Blister rust and tip weevil Trends: Increasing
Landscape considerations:	Maintain

820.2.1.5 Oak Species

These are types where oak makes up more than 50% of the stems. The 5 common upland oak species in Eau Claire County are northern red oak, white oak, bur oak, black oak, and northern pin oak.

Shade tolerance:	Intolerant
Habitats:	PVGY, PVHa, PVRh
Intermediate treatments:	Thinning
Red Oak median rotation age:	120
N.Pin/Black oak median rotation age:	90
White oak median rotation age:	140
Primary regeneration method:	Natural
Harvest method:	Clearcut, coppice shelterwood, overstory removal
Habitat value:	Food, cavity, nesting
Economic value:	Fiber production, bolts and sawtimber
Insect disease considerations:	Oak wilt, two-lined chestnut borer, gypsy moth, deer herbivory
Trends:	Significant decline statewide
Landscape considerations:	Maintain/increase acreages where possible

820.2.1.6 Red Maple

These are types where red maple makes up more than 50% of the stems. Common associates in Eau Claire County are white pine, paper birch, aspen, ash, cherry, and oak.

Shade tolerance:	Intermediate
Habitats:	PVGY, PVHA, PVRh
Intermediate treatments:	Thinning
Median rotation age:	70
Primary regeneration method:	Natural
Harvest method:	Coppice, clearcut, overstory removal
Habitat value:	Food, nesting and cover
Economic value:	Fiber production, bolts, sawtimber
Insect disease considerations:	White rot, frost damage, flooding
Trends:	Increasing significantly
Landscape considerations:	Decrease acreages in better soils/convert to more desired species

820.2.2 Uneven-Aged Management

A forest stand composed of trees in various age and size classes. The typical cutting practice is selection cutting, where individual trees are removed from the stand. Regeneration is continually occurring after the stand is cut. Uneven-aged management is generally used to manage shade tolerant forest types.

820.2.2.1 White Pine

These are stands dominated by shade tolerant and mid-shade tolerant species. In Eau Claire County, white pine stands are typically associated with a minor red maple and/or oak component. Although white pine is typically managed on an even-aged basis it can also be managed using uneven-aged techniques such as single tree selection and group selection harvests.

820.3 LOCALLY UNCOMMON TREES / FOREST TYPES

The presence or lack of a particular tree species is dependent on land capability, climate, natural range, natural or human disturbance and many other factors. The following trees and types are considered uncommon on the Eau Claire County Forest and likely across the general region. These trees may be left as reserves in even aged management prescriptions, or in thinnings and all aged regeneration harvests.

820.3.1 American Elm *(Ulmus americana.)* is scarce primarily due to Dutch elm disease. Healthy looking elm may be left uncut in hope that they may continue on the landscape as potential resistant seed sources.

820.3.2 Butternut *(Juglans cinerea)* is declining due to butternut canker. Healthy individuals that appear to be canker free will be reserved in the forest as potential resistant seed sources.

820.3.3 Eastern Hemlock *(Tsuga canadensis)* is a highly preferred deer and small mammal browse species. Regeneration is difficult and remnant stands will be retained to provide seed sources for future management activities

820.4 FOREST TYPES REQUIRING INTENSIVE EFFORT TO REGENERATE

There are certain forest types within the County Forest that are difficult to regenerate. In many cases, this difficulty may be related to the exclusion of fire from the landscape, deer herbivory or other factors. The following list itemizes forest types with difficult regeneration and County management goals:

820.4.1 Northern red oak (*Quercus rubra*)

Northern red oak is a shade intolerant to mid tolerant species found in primarily even aged stands. Northern red oak appears to require disturbance to regenerate, and herbivory appears to be a limiting factor on regeneration success. The County is committed to retain as much of the existing acreage of northern red oak as possible. Regeneration efforts will focus on timing soil scarification with good acorn crops and shelterwood harvests. Regeneration may require prescribed burning to release seedlings from competing vegetation.

820.4.2 Jack pine (*Pinus banksiana*)

Jack pine is a shade intolerant species found in primarily even aged stands. It requires disturbance to regenerate, historically by fire, and by scarification or logging disturbance. The County is committed to retain as much of the existing acreage of jack pine as possible and increase acreage when the opportunity is there. Regeneration efforts will focus on mechanical and chemical site prep, prescribed burning, and artificial regeneration/seeding.

820.5 INVASIVE PLANT SPECIES OF CONCERN

Invasive plants can cause significant damage to the forest. Invasive species can displace native plants and hinder the forest regeneration efforts. Preventing them from dominating forest understories is critical to the long-term health of the forest. There are a few invasive plant species in varying densities on the County Forest. Some warrant immediate and continual treatment efforts while others may be allowed to remain due to extent and financial ability to control them. The County will continue to train staff in invasive species identification as well as attempt to secure funding sources to control them as much as is practical.

- Buckthorn
- Honeysuckle
- Spotted Knapweed
- Leafy Spurge
- Garlic Mustard

820.6 LEGALLY PROTECTED AND SPECIAL CONCERN PLANT SPECIES

There are plants in Wisconsin that are protected under the Federal Endangered Species Act, the State Endangered Species Law, or both. On County Forest, no one may cut, root up, sever, injure, destroy, remove, transport, or carry away a listed plant without a valid endangered or threatened species permit. There is an exemption on public lands for forestry, agriculture, and utility activities under state law. The County will, however, make reasonable efforts to minimize impacts to endangered or threatened plants during the course of forestry/silviculture activities (typically identified in the timber sale narrative).

The Wisconsin Department Natural Resources Bureau of Natural Heritage Conservation tracks information on legally protected plants with the Natural Heritage Inventory (NHI) program. The NHI program also tracks Special Concern Species, which are those for which some problem of abundance or distribution is suspected, but not yet proven. The main purpose of this category is to focus attention on certain species before they become threatened or endangered.

The County has access to this data under a license agreement and is committed to reviewing this database for endangered resources that may occur within proposed land disturbing project areas.

820.7 TREE RETENTION GUIDELINES

820.7.1 Even aged rotations

Retain three or more, preferably large, snags per acre if available. Retain reserve trees and/or patches at 5 to 15 percent crown cover or stand area, including large vigorous trees, mast trees, and cavity trees. Retention can be reduced in specific situation below 5% or increased above 15%, but needs to be documented, and what the expected impacts are. Reserve trees and patches are not cut during stand rotation. Harvesting may occur in the future or may be foregone to achieve other benefits. Reserve tree retention is recommended for stands larger than 10 acres. Trees retained can be scattered uniformly throughout a stand or irregularly dispersed, as single trees, groups, and patches. Retention

in aggregated patches (0.1 to two acres) generally provides the most benefits. The general recommended strategy is to retain irregularly distributed patches along with scattered groups and individuals. Patches retained can satisfy multiple benefits. For example, at stand rotation, an unharvested buffer along a stream may satisfy Forestry BMPs for Water Quality and reserve tree retention recommendations.

820.7.2 Even aged intermediate treatments

Retain 3 or more snags per acre, if available. Retain 3 or more cavity trees per acre. Retain 3 or more large mast trees per acre. Management may include timber harvesting or passive retention. Consider leaving 3 or more trees per acre to develop into large, old trees and complete their natural life span. These trees may also satisfy cavity and mast recommendations. They will often become large snags and coarse woody debris.

820.7.3 Uneven aged systems

Retain 3 or more snags per acre, if available. Retain 3 or more cavity trees per acre. Retain 3 or more large mast trees per acre. Consider leaving 3 or more trees per acre to develop into large, old trees and complete their natural life span. These trees may also satisfy cavity and mast recommendations. They will often become large snags and coarse woody debris.

820.7.4 Early successional species

In cases where these recommendations for retention are not applied, then sound reasons and expected impacts of deviation should be documented. i.e. aspen, jack pine.

820.8 BIOMASS HARVESTING GUIDELINES

Eau Claire County will use Wisconsin's Forestland Woody Biomass Harvesting Guidelines Field Manual on the Forest with the understanding that the application of the guidelines may be modified for specific site conditions with guidance from a forester or other natural resource professional.

825 ANIMAL SPECIES MANAGEMENT

Eau Claire County Forest provides a wide range of wildlife habitats from open grasslands/barrens to mature forests, from bogs to forested wetlands, from spring ponds to lake shorelines. A primary goal of wildlife management on the Eau Claire County Forest is to provide a diversity of healthy ecosystems necessary to sustain and enhance native wildlife populations. This forest will be managed primarily to provide habitats for a suite of species rather than focusing on a specific species, with exceptions made for Federal or State Listed Endangered or Threatened Species.

825.1 TECHNICAL PLANNING

Management of wildlife populations on the Eau Claire County Forest falls under the jurisdiction of the DNR. Planning may be a cooperative effort of the County Forest staff, DNR liaison forester and wildlife manager in formulating management plans and utilizing forest and wildlife management techniques to accomplish desired forest and wildlife management goals.

825.2 GUIDELINES

DNR operational handbooks including the Public Forest Lands Handbook (2460.5), manual codes and guidance documents are important references and guidelines to utilize in fish and wildlife planning efforts.

825.3 INVENTORY

Habitat needs will be determined by analysis of forest reconnaissance information. Population estimates will be conducted periodically by DNR wildlife, endangered resources personnel, and other trained cooperators. Currently, Department Wildlife staff conduct the following surveys on or adjacent to the Eau Claire County Forest:

- Biotic Inventories
- Summer deer observations
- Brood surveys
- Furbearer tracking

- Frog and Toad Surveys
- Bat Monitoring
- Bear bait surveys
- Snapshot Wisconsin

825.4 RESOURCE MANAGEMENT CONSIDERATIONS FOR WILDLIFE

The following areas of focus are identified for achieving plan objects and for benefit of wildlife.

825.4.1 General Management Policies

Forest management practices may be modified to benefit wildlife and diversity. The following will be considered when planning for management activities:

- Even-aged regeneration harvests (clearcuts) should vary in size and shape and include retention considerations.
- A diversity of stand age, size, and species.
- Mast-bearing trees and shrubs, cavity trees, and an adequate number and variety of snags.
- Cull trees (future snag or den trees) not interfering with specific high value trees.
- Timber types, habitat conditions and impacts on affected wildlife.
- Access management.
- Best management practices for water quality (BMP's).
- Invasive Species Management

825.5 IMPORTANCE OF HABITATS

Important habitat types are those cover types known to be of importance to certain native wildlife and whose absence would make that wildlife significantly less abundant. These shortages may be on a local or broader scale. The following habitat types can be considered important:

825.5.1 Non-forested wetlands

The Eau Claire County Forest contains 6,002 acres of non-forested wetland types providing a variety of habitats for common, rare, and endangered species. Emergent wetland, sedge meadow, muskeg bog and deep marsh provide habitat for species such as wood turtle, black tern, American bittern, and numerous other species.

825.5.2 Aquatic habitats

The Eau Claire County Forest includes open water habitats that are permanently flooded lands below the deep-water boundary of wetlands. Presence of these aquatic habitats within a forested landscape greatly increases the number of wildlife species. Open water provides habitat for species such as wood duck, boreal chorus frog, water shrew and many other species reliant on water related resources.

825.5.3 Riparian and other non-managed areas

Undisturbed shoreline and riparian areas present on the forest and provide habitat for species such as red shouldered hawk, green frog, and woodland jumping mouse.

825.5.4 Early successional forests

Management of aspen, white birch, jack pine and other shade intolerant species creates habitat for a large suite of wildlife species that benefit from early successional forests. On the Eau Claire County Forest there are currently 13,127 acres of these forest types present. This is a key habitat used for recreational hunting activities providing conditions favorable for American woodcock, ruffed grouse, white-tailed deer, and non-game species such as golden-winged warbler, Kirkland's warbler, and black-billed cuckoo.

825.5.5 Conifers

Conifers, whether jack pine, white pine, spruce, fir, or other types appear to be an important habitat for several wildlife species. The Eau Claire County Forest currently has 13,330 acres of coniferous habitat. Connecticut warbler, red crossbill, northern flying squirrel, and many others utilize conifer types. Jack pine areas can be managed to provide temporary barrens habitat providing habitat for Kirtland's warbler and other barren related species.

825.5.6 Oak management

Oak is an important mast producing food source on the forest, providing acorns for a wide variety of game and non-game species. The Eau Claire County Forest has 16,464 acres of oak habitat. It is considered a critical resource to retain on the landscape for both its timber and wildlife value, providing habitat for species such as scarlet tanager, wood thrush, red headed woodpecker, and black bear.

825.5.7 Uneven/all aged management

Management of uneven aged stands provides for multi-storied canopies, diverse age structure and potentially older forest characters. The Eau Claire County Forest has 73 acres being managed under an all-aged management system. Species such as Canada warbler, little brown bat, black throated blue warbler, and many others benefit from these forest type, in addition, numerous amphibian and reptiles utilize these forest types.

825.5.8 Large forest blocks

Large blocks of County Forest provide habitat for numerous interior species. Gray wolf, black throated blue warbler, Canada warbler and least flycatcher are a few examples of animals that rely on these large blocks.

825.5.9 Grasslands, openings, upland brush

Wildlife openings, grass rights-of-way, natural openings, upland brush, and other upland open habitats provide for diversity and unique habitats benefitting pollinators, numerous species including upland plover and whip-poor-will. The Eau Claire County Forest currently has 192 acres identified as open grassland or upland brush habitat.

825.5.10 Barrens

Extensive and diverse community of variable composition and structure. Sandy uplands with variations of open woodlands with jack pine, oak, open savanna, and brush prairie. Jack pine dominates the area with red pine, white pine, black oak, and bur oak often present. The Eau Claire County Forest has 700 acres identified as barrens.

825.6 INTENSIVE WILDLIFE MANAGEMENT PROJECTS

825.6.1 Wisconsin Wildlife Action Plan / Species of Greatest Conservation Need (SGCN)

In addition to species listed as endangered, threatened, or special concern within the NHI database, the Department also maintains a statewide list of species of greatest conservation need.

This list includes species that have low or declining populations and may need conservation action. The list includes birds, fish, mammals, reptiles, amphibians and insects that are:

- Already listed as threatened or endangered
- At risk due to threats
- Rare due to small or declining populations
- Showing declining trends in habitat or populations

The WWAP working list can provide information on how management activities may impact, or in many cases benefit species of greatest conservation need. More information is available on the WWAP website: *https://dnr.wi.gov/topic/wildlifehabitat/actionplan.html* .

825.7 FISH AND WATERS MANAGEMENT

Public waters shall be managed to provide for optimum natural fish production, an opportunity for quality recreation, and a healthy balanced aquatic ecosystem. Emphasis will also be placed on land-use practices that benefit the aquatic community. Management of County Forest lands will attempt to preserve and/or improve fish habitat and water quality.

825.7.1 Technical Planning and Surveys

Management of all waters within the County Forest is the responsibility of the DNR. Technical assistance will be provided by the local fisheries biologist. Studies and management will be conducted in the manner described in DNR Fish Management Handbook 3605.9. Water and Population Surveys fall under the jurisdiction of the

Department and will be conducted as needed by fisheries biologists.

825.7.2 Special Projects

The Lake Eau Claire Lake Association have installed tree drops, nearshore cribs and offshore cribs to help improve the fishery. These annual projects have continued to help support the fishery and provide habitat for panfish and walleye populations. The Committee encourages volunteer related practices and endeavors.

825.7.3 Shoreland Zoning

All the shoreland areas within Eau Claire County are governed by Eau Claire County Chapter 20, Shoreland Zoning Ordinance. If a proposed project is within 300 feet of a river, creek, or stream, or within 1000 feet of a lake, pond, or flowage there may be restrictions for the development.

825.7.4 Access and development

Access and development of County Forest waters will be limited to those activities consistent with the above water management policies. See Chapter 740 also for further information on water access.

825.7.5 Important Water Resources

Management activities adjacent to these water resources, or in areas with sensitive soils or severe slopes, should consider measures above and beyond the customary BMP practices. County staff may work with the local DNR water resources staff to develop site-specific measures where appropriate. An inventory of water resources can be obtained from DNR Water staff for the County.

830 EXCEPTIONAL RESOURCES, UNIQUE AREAS

830.1 HCVF FOR FSC® AND DUAL CERTIFIED COUNTIES

The DNR established criteria for establishing High Conservation Value Forests (HCVFs) on state lands is found below. For the purpose of this plan, the county recognizes this criterion for identifying HCVFs on county land. This does not preclude the county from identifying other unique areas that do not meet the definition of HCVFs.

Criteria For Selection of High Conservation Value Forests

HIGH CONSERVATION AREAS

- Forest areas containing globally, regionally, or nationally significant concentrations of biodiversity values including RTE species.
- Forest areas containing globally, regionally, or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.
- Forest areas that are in or contain rare, threatened, or endangered ecosystems.
- Forest areas that provide basic services of nature in critical situations (e.g., watershed protection). **Wisconsin does not have known locations meeting this criterion.**
- Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health of indigenous communities) **Wisconsin does not have known locations meeting this criterion.**
- Forest areas critical to local communities' traditional cultural identity (e.g. areas of cultural, ecological, economic, or religious significance identified in cooperation with such local communities).

The HCVFs on Eau Claire County Forest are the following:

Eau Claire County recognizes four HCVFs on the Eau Claire County Forest. These areas are also designated as Wisconsin State Natural Areas (SNAs). Areas recognized as HCVFs are: Canoe Landing Prairie, Coon Fork Barrens, Pea Creek Sedge Meadow, and the South Fork Barrens. Management plans have been prepared for each SNA. Each SNA was designated to protect areas of special character or natural communities. Each of the SNAs has a memorandum of understanding by and between Eau Claire County and the Wisconsin Department of Natural Resources Bureau of Endangered Resources. The importance of the

Wisconsin State Natural Areas has been recognized on the County Forest by cooperating with the Department staff in designating and managing 1,311 acres of the County forest for five SNA sites, of which one does not meet the HCVF designation (North Fork Eau Claire River).

Canoe Landing Prairie (44 acres)

Canoe Landing Prairie has been confirmed as HCVF Category 1.2 by NHC Ecologist Dean Edlin. It contains globally imperiled oak/pine barrens and the federally threatened Karner blue butterfly.

The Canoe Landing Prairie is a dry grassland community dominated by little bluestem, junegrass, and panic grass. Common herbaceous species include flowering spurge, frostweed, common bush-clover, false-heather, long- bearded hawkweed, horsebalm, and spiderwort. The surrounding landscape contains overgrown barrens, with oaks and jack pine. Oak grubs in the prairie indicate that it, too, was barrens in the past. The site provides habitat for a variety of grassland animals.

An active mowing and burning cycle have been implemented on the property to manage the vegetation and native grasses with much success. Continued mowing and burning is expected in the next 15 years.

Coon Fork Barrens (580 acres)

Coon Fork Barrens has been confirmed as HCVF Category 1.2 by NHC Ecologist Dean Edlin. It contains globally imperiled oak/pine barrens and the federally threatened Karner blue butterfly.

Coon Fork Barrens features an extensive and diverse barrens community of variable composition and structure located between Coon Fork and Pea Creek, two Eau Claire River tributaries. The gently rolling to flat sandy uplands support a barrens which varies from open woodlands with jack pine and oak to open savanna and brush prairie. Jack pine dominates the area with occasional red pine and Hill's, black, white and bur oaks are present as mainly grub trees. Some areas of vegetation are health-like with species including bracken fern, sweet gale, early

low blueberry, American hazelnut, and Pennsylvania sedge. Other patches feature a rich sand prairie and savanna flora including big and little bluestem, junegrass, western sunflower, prairie coreopsis, wild lupine, lance-leaved loosestrife, sky-blue aster, prairie goldenrod, rough blazing-star, and cylindrical blazing-star. Additionally, the rich, moist low terraces and steep slopes along the creeks support species of white and red pine, and red maple. The barrens are critical habitat for the federally endangered Karner blue butterfly (*Lycaeides melissa samuelis*), which is common throughout the area. Wisconsin supports the largest and most widespread Karner blue butterfly population in the world, a disturbance-dependent species adapted to barrens and other early successional habitats that has been extirpated from much of its historic range. Thus, the protection and management of areas such as Coon Fork Barrens is critical to its continued survival. The property is managed on a mowing/burning cycle to manage the vegetation and grasses Coon Fork Barrens was designated as a State Natural Area in 1996.

Pea Creek Sedge Meadow (200 acres)

Pea Creek Sedge Meadow has been confirmed as HCVF Category 1.1 by NHC Ecologist Dean Edlin. It contains a Central Poor Fen (G3/4) with an EO rank of A.

Pea Creek Sedge Meadow features a large, undisturbed acid meadow that is the headwaters of Pea Creek, a tributary of the Eau Claire River. Dominant plants include few-seeded sedge, beaked sedge, tussock sedge, blue-joint grass, bog birch, and leather-leaf over a patchy cover of sphagnum. Other characteristic herbs and shrubs are steeplebush, bog willow, swamp candles, march fern, wild iris, swamp loosestrife, northern bog goldenrod, and swamp dewberry. The meadow is more open along the edges and becomes brushy toward the center. Patches of tamarack are also present, mostly near the eastern margins of the wetland. A tall shrub zone of speckled alder, black chokeberry, mountain holly, and common winterberry occupies a portion of the upland-wetland interface.

Several small stands of white pine-red maple forest are present along the edges of the meadow while uplands are mostly sandy and mostly second-growth white pine, oak, aspen, and birch. Notable birds include sedge wren (*Cistothorus plantensis*), northern harrier (*Circus cyaneus*), and sandhill crane. Management for the property consists of maintaining the earthen dam, keeping it free of woody stems and maintaining steady water level in the meadow. Pea Creek Sedge Meadow was designated as a State Natural Area in 1996.

South Fork Barrens (120 acres)

South Fork Barrens has been confirmed as HCVF Category 1.2 by NHC Ecologist Dean Edlin. It contains globally imperiled oak/pine barrens and the federally threatened Karner blue butterfly.

South Fork Barrens features a jack pine-oak barrens situated on the rolling uplands and steep south-facing bluff above the south fork of the Eau Claire River. The barrens are dominated by jack pine with burr oak, Hill's oak, and red pine with early low blueberry and American hazelnut common in the understory. Numerous prairie grasses and forbs are scattered through the area and include big and little blue-stem, junegrass, lupine, blue toadflax, lance- leaved loosestrife, butterfly milkweed, flowering spurge, bastard toadflax, field woodworm, lyre-leaved rock cress, and smooth blue aster. The federally endangered Karner blue butterfly (*Lycaeides melissa samuelis*) is found here, attracted to the wild lupine that is found throughout the barrens. Wild lupine is the only known larval food plant of the Karner blue butterfly and is, therefore, closely tied to the butterfly's ecology and distribution. Active management including prescribed burning and stopping encroachment of woody species will ensure the long-term viability of the wild lupine population and the Karner blue butterfly that depends upon it for survival. South Fork Barrens was designated as a State Natural Area in 1996.

830.2 AREAS RECOGNIZED BY STATE OR FEDERAL GOVERNMENT

830.2.1 State Natural Areas

One State Natural Areas exists on the county forest that is not considered HCVF.

North Fork Eau Claire River (367 acres)

The North Fork of the Eau Claire River encompasses a 3-mile stretch of river that is of very high quality and has a wild, natural character. The northernmost 2-mile stretch of river is bordered by sandstone cliffs and steep terraces harboring unusual plants. The lower portion of the corridor is bordered by sedge meadow, river oxbows, and small area of oak savanna. No active management prescriptions are present for this State Natural Area.

830.2.2 State Scientific Areas

State Scientific Areas are a previous designation given to "State Natural Area" and are currently analogous to "State Natural Area".

830.2.3 Endangered species habitats (Karner Blue Butterfly, Kirtland's Warbler, etc.)

Pine barrens, Sand prairie, Central poor fen, Central sands pine oak forest, Karner blue butterfly high potential range. In addition to these unique natural communities, rare, threatened and endangered plant and animal species exist in the Eau Claire County Forest.

830.2.4 Rare communities

Pine barrens, sand prairie, central poor fen, central sands pine oak forest, Karner blue butterfly high potential range.

830.3 AREAS RECOGNIZED BY COUNTY OR LOCALLY

Eau Claire County may contain areas that are locally considered exceptional or unique. Some are recognized by other agencies, while others are designated only within this Plan. These resources may include wild rivers, lakes, natural areas, geological features, or historical/archeological sites.

830.3.1 Forests with Old Growth Characteristics

There are three wilderness areas in the county forest will be managed as old growth. No active management will be done in these areas and the existing cover types will succeed into an old growth state. Walking paths for educational and recreational purposes may be allowed at the discretion of the Parks and Forest Committee. These three Wilderness Areas are Hathaway Creek, Horse Creek, and Wilson Wilderness Areas.

Hathaway Creek Wilderness Area: 64 Acres of white pine, red maple, tamarack, lowland brush, and creek bottom.

Horse Creek Wilderness Area: 232 acres of white pine, oak, red maple, and lowland. Wilson Wilderness Area: 160 acres of white pine, mixed hardwood and oak along Hay Creek.

Browns Creek Pines: A 10-acre stand of mature white pine lies on the terrace above Brown Creek. This stand represents a rare natural feature- a white pine stand growing on soils more conducive to jack pine and northern pin oak. The Menahga Sands have poor nutrient availability and seldom grow large trees. This white pine, however, is thriving with great growth and a ground layer that contains many species more typical of a richer soil site. In addition, with the stand lying near the crest of the slope above Brown Creek, it can provide an excellent buffer for water quality. The site is managed as an old forest with periodic thinning so trees will attain large diameter before a final harvest regenerates the stand at biological maturity.

830.3.2 Wildlife Sites

Kelly Road Ruffed Grouse Management Area – This area is adjacent to the Augusta Wildlife area in the town of Bridge Creek. Providing a large area where management emphasis is on creating habitat for ruffed grouse, woodcock, and other upland birds. Management will create an age class diversity and habitat beneficial to ruffed grouse and woodcock. Access roads will allow timber harvesting to create age stratification and access for hunters. Active management of the resource to maintain habitat is the goal in these areas.

Simes Creek Ruffed Grouse Management Area - This area is in the town of Wilson, with road access from Forest Road 1 and Highway H. The area was created in 2015, with a

goal like the Kelly Road area, to manage and create habitat for ruffed grouse, woodcock, and other upland birds. Access roads have been installed providing access for future timber harvests, as well as providing hunter access trails. These areas will serve as examples of actively managing for ruffed grouse and woodcock both of which have experienced cycles of decline over the past decade or so.

830.3.3 Savannas, Barrens, etc

Coon Fork Barrens
South Fork Barrens
Canoe Landing Prairie

General management of these three barren sites is described under 830.1 of this plan.

830.3.4 Geological Features of Significance

Complex Precambrian rocks, including gneiss, amphibolites and granites are exposed along the Eau Claire River and its tributaries, with the grandest exposure being Big Falls County Park. The rock formations at Big Falls make this a popular park and tourist destination.

830.3.5 Waterfalls and Wild Lakes

Certain stretches of the Eau Claire River contain small waterfalls and rapids that are unique to the county. The most prominent areas are found at Big Falls County Park and Hamilton Falls in the Town of Wilson.

The surface waters encompassed under the wild lakes designation include those restricted use areas that are not open to any gasoline or diesel-powered vehicles, watercraft, or snowmobiles except when snow covered. In general, all or most of the shorelines of these lakes and streams are owned by Eau Claire County. Canoes, kayaks, and boats propelled by wind, oars, or electric motors are permitted. The intent of these restrictions is to protect the aquatic resources of these lakes but still allow access. On Eau Claire County Forest Coon Fork Lake is designated as a “Wild Lake”.

830.3.6 Unique Forest Types, Benchmark Stands, etc

There are two experimental pine plantations on the forest. Both are easily accessible to the public and demonstrate the effects of managed v. unmanaged pine plantations. The Al Santala Experimental Pine Plantation is located on Goat Ranch Road/ Rustic Road # R-45. This plantation has been managed using accepted pine management activities except for approximately 1 acre. The result is a side-by-side comparison of the effects of management and no management in pine plantations. Measurements are taken periodically in the stand which tracks the differences between the parts of the stand. The managed side is thinned regularly on the same schedule as the other pine plantations on the forest.

The L.L. Phillips Experimental Pine Plantation is near the intersection of CTH L and CTH QQ in L.L. Phillips County Park next to the pavilion. This is 1 acre which has been left unmanaged while the rest of the plantation has been thinned regularly on a standard thinning schedule.

830.3.7 Endangered or Threatened Species Habitat

Pine barrens, Sand prairie, Central poor fen, Central sands pine oak forest, Karner blue butterfly high potential range. In addition to these unique natural communities, rare, threatened, and endangered plant and animal species exist in the Eau Claire County Forest.

830.4 CULTURALLY SIGNIFICANT SITES

830.4.1 Landmarks

Special landmarks on the county forest include Hamilton Falls, Big Falls, Knights Pool, and the Eisberner Memorial.

Hamilton Falls is a unique waterfall on the north fork of the Eau Claire River, located in the Town of Wilson. It is a popular fishing hole and launch site for canoes and kayaks.

Big Falls is the most unique and grand waterfall on the Eau Claire River in the County. This is also site to a popular county park. Day use activities here include picnicking, canoe and kayaking, swimming, fishing, and hiking trails. Big Falls has some of the most unique geological features in the county and is a popular spot for UW-Eau Claire geology students to study and observe the different rock formations.

Knights Pool, located on the north fork of the Eau Claire river is a popular fishing hole. Anglers seeking musky and small mouth bass have been frequenting this location for years. It can be easily accessed from the bridge crossing the Eau Clarie River on Channey Road.

The Donald L Eisberner Memorial Forest and Canoe Landing which lies on the corner of Chaney Road and Canoe Landing Road in the heart of Eau Claire County Forest.

The site is dedicated to Don Eisberner who lost his life at this spot on April 24, 1982 as a firefighter for the Department of Natural Resources. This site serves both as a memorial to Don Eisberner and a powerful forest fire prevention message to the community and forest visitors.

Don Eisberner, 48, was a 30-year veteran of the Department of Natural Resources (DNR). He Attended grade school at Humbird, Wisconsin, and graduated in 1951 from Fairchild High School. He was hired on March 17, 1952 as a lookout tower man and forest fire fighter and equipment operator, Don worked on cooperative efforts to improve forestry and wildlife programs.

During his career as a forest fire control assistant with the Fairchild Ranger Station, he proved exceptional service to the citizens of Wisconsin, protecting them and their land from fire and teaching youth about fire prevention as Smokey Bear. Don was involved with the local union chapter and was an active member of the community. He was a dedicated husband and father of seven children.

The forest and canoe landing site is dedicated to Don Eisberner who lost his life in 1982, while fighting a 274-acre forest fire that started from an unattended campfire. He was one of the first fire fighters to arrive at the scene of the fire. The fire spread to dry grass and into a young pine plantation. With a sudden wind shift, the fire turned and trapped Don and his tractor plow unit. The weekend fire conditions had been rated as

extremely hazardous. Ironically, in 1994 a second fire escaped an unattended campfire at the canoe landing burning an even larger area.

835 AESTHETICS

Public perception of forestry has changed over the last planning period and in general it appears that the public is much more accepting of the visual impact of sound forestry. In response to this, aesthetic management planning is intended to be much more simplified in this Plan.

835.1 AESTHETIC MANAGEMENT

Aesthetic management techniques may be applied in areas of high visibility or high public use. Altered management, visual screens, slash disposal, conversion to other species, no cut zones or other methods may be employed, depending on the circumstances of the specific site.

835.2 AESTHETIC MANAGEMENT ZONES

Aesthetic Management Zones include areas where there may be high levels of public presence because of scenic attraction, or some use of the area that would be enhanced by special timber management practices.

835.2.1 Aesthetic Management Zone Definitions

Zone A

Areas where there is intensive public pressure because of scenic attraction, or some use of area that would be enhanced by scenic timber management practices.

Zone B

Any area of the forest where the public use is such that no one value at all times can be considered primary, but where, because of the intensity and variety of use, scenic attractiveness must be maintained.

Zone C

Includes all parts of the forest not included in Zones A, B, or special use areas. Any significant public presence in this zone is likely to occur only as a result of a

specific use of the forest.

835.2.2 Aesthetic Management Zone Examples

Zone A

1- Parks and recreation areas, including access routes

2- Lakes and rivers with significant value for boating, swimming, or fishing.

3- Highways or roads with heavy use.

4- Roads with medium use where the majority of the traffic is unrelated to the forest or is the specific purpose of enjoying scenery.

Zone A areas of the County Forest are:

Big Falls Park
Coon Fork Lake Park
Harstad Park
Lake Eau Claire Park
L.L. Phillips Park
Tower Ridge Recreation Area
Eau Claire River (north and south forks to Lake Altoona)
Highway 27 corridor
CTH “QQ’, “CF”, “L”, “H”, “SD”, “ND”, Rustic Road R-45
Waysides

Zone B

1- Roads with light to medium use where the majority of the traffic is a result of some use of the forest other than for scenic beauty.

2- Lake or streams that do not have significant value for boating or fishing.

Zone B areas of the County Forest are:

Channey Road
CTH “QQ”, “NL”, “M”, “G”, “GG”, “K”, “SS”
Pea Creek
Black Creek
Coon Creek
Hay Creek
Horse Creek

Muskrat Creek
7, 9 Mile Creeks

Zone C

All areas not included in Zone A, B, or special use areas.

835.2.3 Aesthetic Management Zone Boundaries

Zone A Boundaries

Park or recreation areas the zone boundaries must include all of the area within the effective visible horizon, not to exceed 1,000 feet, as determined from any location within the recreation area. It should also include all adjacent areas that receive a considerable amount of use as a result of the recreation area.

Travel corridors will be the boundaries effective visible horizon in a leaf-off condition as determined from the traveled part of the zone.

Zone B Boundaries

The zone boundaries will be the effective visible horizon, not to exceed 1,000 feet, which shall be determined at periods of heavy use, from the part of the zone where the use occurs.

Zone C Boundaries

All areas not included in Zones A, B, or special use areas.

835.2.4 Aesthetic Management Zone Management

Zone A Management

Manage primarily for scenic value. This will mainly involve adaptions of normal timber cutting practices and may require additional expenditures.

Zone B Management

Manage for maximum timber production but apply strict slash disposal requirements for any timber harvests. By the use of signs, the management practices may be explained to the public as they are carried out.

Zone C Management

Manage primarily for timber production except in areas which have greater value for other multiple use purposes. Natural opportunities to maintain or enhance diversity or scenic quality should be considered.

835.2.5 Aesthetic Management Zone Permitted Uses

Zone A Permitted Uses

1- Timber harvesting and thinning operations will normally be permitted only during periods of least public use.

2- Timber management in this zone will be done in a manner so as to provide the greatest scenic potential for public enjoyment.

3- County directional signs, conforming to established standards, may be permitted at road intersections.

4- County informational and recreational signs conforming to approved standards are permitted.

5- All tree and shrub planting will be done by hand or modified machine planting methods. The trees will be spaced at random to present a natural appearance.

6- All slash will be lopped, or removed from sight, if visible from the used part of the zone.

7- New access roads will be permitted if they join the main road at right angles. All such access roads will be, when possible, curved so that no clear line of sight will be created from the main road to the exterior boundary of the zone.

Zone B Permitted Uses

All land management activities are permissible but should be exercised with sensitivity to aesthetics. Examples: Timber sales may employ lopping and scattering of slash, rehabilitation of roads and landings, erosion control and prevention, and irregular harvest lines to mitigate aesthetic impact.

Zone C Permitted Uses

All land management activities consistent with the goals of the forest.

840 LANDSCAPE MANAGEMENT

The County will make efforts to evaluate surrounding landscapes while managing the County Forest. The County will strive to provide management that compliments the landscapes, but also try to provide for resources or forest types that are lacking or declining within surrounding landscapes.

840.1 CONSERVATION OF BIOLOGICAL DIVERSITY

For the purposes of this plan, biological diversity will be interpreted to reference the variety and abundance of species, their genetic composition, and the communities, ecosystems, and landscapes in which they occur. Forest management activities on the Eau Claire County Forest enhance biological diversity by managing for a wide variety of habitat types, age structures and by attempting to perpetuate and protect declining forest types.

840.2 HABITAT FRAGMENTATION

For the purposes of this plan, habitat fragmentation is interpreted as conversion of forests to land uses other than forestry. Lands enrolled in the County Forest Law help protect against habitat fragmentation. A continued program of encouraging land acquisition within the forest blocking boundary is intended to decrease the conversion of forest land to other uses.