

COUNTY FOREST COMPREHENSIVE LAND USE PLAN
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CHAPTER 600
PROTECTION

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CHAPTER 600 - PROTECTION

600 PROTECTION

OBJECTIVE

To protect and manage the resources of the forest from preventable losses resulting from fire, insects, diseases and other destructive elements including those caused by people. Protective methods shall include proper silvicultural methods.

605 FIRE CONTROL

Damage to the Forest caused by uncontrolled fire can create an important challenge in the management of the forest. Loss of resource values caused by fire will be minimized through organized fire prevention, detection and suppression methods. Maintaining a healthy forest is key to fire management. The DNR is responsible for all matters relating to the prevention, detection and suppression of forest fires outside the limits of incorporated villages and cities. (s.26.11(1), Wis.Stats). The DNR works cooperatively with local fire departments in all wild fire control efforts. Bayfield County Forest is part of the intensive Forest Fire protection area. The Fire Prevention Handbook No. 4310.5, Fire Presuppression Handbook No. 4320.5, the Fire Management Handbook No. 4325.1 and the Area Fire Action Plan shall serve as the guidelines for fire control activities.

605.1 COOPERATION WITH THE DEPARTMENT OF NATURAL RESOURCES

Pursuant to s. 26.11(4) and s. 28.11(4) (f), Wis. Stats., and of the Bayfield County Forest Ordinance, the County may cooperate with the DNR regarding fire prevention, detection and suppression on the County Forest. This can be accomplished through agreements authorizing the DNR to use County Forest land or to utilize County personnel and equipment for fire protection activities.

605.1.1 Personnel

Qualified County Forest personnel, upon request from the DNR, may be made available for forest fire control efforts within the state. The DNR is responsible for training and directing the activities of County personnel in accordance with the rules identified in the Area Fire Action Plan.

605.1.2 Equipment

County Forest equipment, upon request, may be available for forest fire suppression. The DNR will, to the best of its ability, keep forest fire suppression equipment available for fire incidents in the county during periods of high fire danger.

605.1.3 Fire Detection

Fire detection is the responsibility of the DNR. County Forestry personnel will assist by reporting any wild fires to the DNR, local Fire Department or 911 Dispatch. The Washburn Fire tower is the only state operated and maintained fire tower on the Bayfield County Forest.

The Washburn Tower is located on a 1 acre State Easement on County Forest Land.

605.1.4 Forest Fire Prevention

DNR fire control personnel are authorized by the county to place fire prevention signs at recreational areas and other strategic locations within the Forest. The County conducts and controls all operations (including harvesting) on the Forest in a manner designed to prevent forest fires. The use of the County Forest during high fire danger periods may be restricted by the County Forest Administrator. These restrictions will include, but not be limited to, recreational activities and logging.

605.2 SLASH DISPOSAL

Timber sale contracts will be designed to meet or exceed the requirements of the Slash Disposal Law, s. 26.12, Wis. Stats. Additional requirements may be imposed as necessary.

605.3 DEBRIS BURNING

Unauthorized burning of debris will not be permitted on County Forest Lands pursuant to s. 26.12(5), Wis. Stats.

605.4 CAMP FIRES

For established Bayfield County Forest Recreation Sites, campfires will be restricted to designated fireplaces. For the remainder of the Forest, campfires will be allowed when proper precautions are taken; 1) fires are built on mineral soil, 2) a safety zone, free of burnable material, is cleared around the perimeter of the fire, 3) fires are not left unattended, and 4) fires are completely extinguished before departing the site. During periods of high fire danger, use of campfires or stoves may be restricted or prohibited.

605.5 PRESCRIBED BURNING

All prescribed burning on County Forest lands will follow DNR guidelines. See the Prescribed Burn Handbook No. 4360.5 for details. Prescribed fire is an effective management tool on the County Forest.

605.6 COUNTY FOREST FIRE HAZARD AREAS

Primary emphasis will be placed on fire control efforts in pine areas. Fuel model maps of these areas are on file at the local DNR field office and county forest office, see Fire Management Handbook 4325.1 sec. 3030. Firebreaks or access ways will be established in new plantations where needed. Existing access roads, firebreaks and water access points will be maintained as deemed necessary. Secondary emphasis will be placed on hardwood areas with no firebreaks developed or maintained. However, access roads will be maintained as defined in Chapter 700 of this plan.

605.6.1 WILDFIRE PROTECTION PLANNING

A cooperative effort between the USDA Forest Service, Wisconsin DNR, Bayfield County Emergency Services, and the Bayfield County Forestry Department has identified communities that are in need of special attention due to the level of wildfire risk. A spatial analysis was conducted over the entire county which looked at fire prone cover types i.e. grasslands, pine plantations, and various levels of housing densities. The two communities that have the highest risk in the County are the Towns of Barnes and Drummond. Efforts are currently underway in these towns to prepare Community Wildfire Protection Plans. Actions are being planned to improve wildfire awareness, prevention, and Presuppression efforts. Warning/Awareness signs, road improvement, fuel breaks, water source access, and brush and debris clearing are some of the specific activities being planned and carried out.

605.6.2 FUEL BREAKS

Fuel breaks are made by physically changing or removing fuels in strategic locations to break up the continuity of hazardous fuels. Fuel breaks are used in fire prone areas to provide a safer and predesignated place for firefighting crews to build and hold a control line. A fuel break may consist of converting hazardous vegetation into less flammable vegetation in critical areas, such as establishing aspen stands between areas of pine. Fuel breaks may also consist of removing trees and brush from along side roads to a sufficient width such that there would not be enough fuel in the canopy of the forest to carry a crown fire. Construction and maintenance of fuel breaks, in conjunction with other resource considerations, may vary greatly in width. The planning of fuel breaks will also consider the use of natural features such as lakes, streams, and wetlands where appropriate. For additional information on fuel breaks refer to Chapter 810.1.7 Forest Fire Management.

605.7 UNCONTROLLED FIRE

Any uncontrolled or non-prescribed fires on the County Forest will be suppressed as soon as possible. DNR suppression policy is to take all suppression actions necessary to keep fires as small as possible in a cost-effective manner, with the goal of keeping all forest fires less than 5 acres in size. The Incident Command System (ICS) will be used to organize all fire suppression forces on each fire.

610 CONTROL OF FOREST PEST & PATHOGEN

610.1 DETECTION

Damage to the forest caused by insects, other pests and diseases can adversely affect management of the forest resources. Losses to resource values impacted by forest pests will be minimized through integrated pest management methods. The detection and control of pest problems will be accomplished by county and DNR personnel in cooperation with other agencies.

610.2 PEST SURVEYS

Pest surveys are conducted under the direction of the DNR's regional entomologist. The DNR works in cooperation with the Wisconsin Department of Agriculture Trade and Consumer Protection (DATCP) in monitoring the spread of gypsy moths. The County may cooperate by providing personnel and equipment to assist in these operations.

610.3 INTEGRATED PEST MANAGEMENT

Integrated pest management for the purpose of this Plan, is defined as follows:

“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 integrated pest management control shall be determined jointly by the county forest administrator, and DNR liaison forester in consultation with the DNR regional entomologist and regional forester. Suppression of forest pests may include the following:

- 1) Silvicultural prescriptions.
- 2) Biological control.
- 3) Chemical control.

610.3.1 Specific Pests and Pathogens of Interest.

610.3.1.1 Gypsy Moth Strategy

This introduced pest has progressed westward from the northeastern United States since the early 1900's. It reached eastern Wisconsin and has been widespread in some counties since 1988. Despite efforts to slow-the-spread and suppress outbreaks, it is progressing westerly through Wisconsin. The Bayfield County Forest's strategy to combat this defoliating insect will focus on using silvicultural techniques to maintain and improve forest vigor, so as to decrease the likelihood and severity of defoliation. In addition, suppression spraying with approved insecticides may be considered in high use recreation areas and stands containing a high percentage of susceptible, high valued timber. Biological controls may also be available for introduction to help reduce outbreak frequency.

The intent in combating this insect is not to eradicate, but rather to reduce populations so that tree mortality is maintained at tolerable levels. The DNR's local gypsy moth coordinator and entomologist will be available for consultation on control tactics and possible quarantine procedures. DATCP is the agency responsible for quarantine procedures for wood products from infested counties.

Bayfield County Forest's threshold levels for suppression will be as follows:

- 20 acres in size and of a compact and regular shape (minimum eligible size for aerial spraying through the state suppression program) OR high use, developed recreation areas
- 500 egg masses per acre based on 1/40th acre (18.6 ft. radius) plots

610.3.1.2 Jack Pine Budworm

Jack pine budworm is a native needle-feeding caterpillar that is generally considered the most significant pest of jack pine. Vigorous young jack pine stands are rarely damaged during outbreaks. The most vigorous stands are well stocked, evenly spaced, fairly uniform in height, and less than 45 years old. Stands older than 45 years that are growing on very sandy sites and suffering from drought or other stresses are very vulnerable to damage. Tree mortality and top-kill are more likely to occur in these stands. This mortality and top-kill create fuel for intense wildfires. It will be Bayfield county's strategy to harvest at the appropriate rotation age, maintain high stand densities (without overcrowding), and use good site selection for jack pine. This will be an effort to help avoid budworm-caused tree mortality and reduce the threat of damaging wildfires while still providing suitable conditions for jack pine regeneration. Prompt salvage following an outbreak will also help reduce the possibility of wildfire. Use of insecticides is not warranted in combating this forest pest on the County Forest.

610.3.1.3 Forest Tent Caterpillar

Forest tent caterpillars can be found throughout the United States and Canada wherever hardwoods grow. The favored hosts in Wisconsin are aspen and oak. This native insect causes region-wide outbreaks at intervals from 10 to 15 years; outbreaks usually last 2 - 5 years in the Lake States. Severe and repeated defoliation can lead to dieback and/or reduced growth of affected trees, which in some instances may be significant. Stressed trees are also susceptible to other harmful pathogens that can lead to increased mortality. Populations are often controlled by natural enemies, helping the population crash. Aerial spraying of insecticides can be an option for control as well. It will be Bayfield County's strategy to employ sound silvicultural practices to combat this cyclic pest.

610.3.1.4 Two-lined Chestnut Borer

The two-lined chestnut borer is a common secondary pest in trees which have been severely defoliated several years in a row. Oaks that have been defoliated by insects such as gypsy moth, fall cankerworm and forest tent caterpillar can be attacked and killed by the two-lined chestnut borer. Prevention of two-lined chestnut borer is the best management option. Bayfield County will strive to maintain healthy trees through sound silvicultural practices to discourage infestation. Infestations will be salvaged promptly.

610.3.1.5 Emerald Ash Borer

The emerald ash borer, *Agrilus planipennis*, was introduced from Asia and has taken hold in Michigan. In Michigan it has resulted in widespread mortality specific to ash including green, white, black and several horticultural varieties. Although not currently present in Wisconsin, it is a severe threat to ash in the State. Ash comprises a significant component in the northern hardwood timber type and can be found in nearly pure stands in some lowland areas. Adult beetles feed on foliage however, it is the larvae that cause mortality by feeding on the phloem and outer sapwood of the ash trees. Bayfield County will cooperate with ongoing trapping and survey efforts. Sound silvicultural practices will continue to be used to maintain forest health. Should an infestation occur, Bayfield County will work with DNR Forest Health staff in applying measures to minimize spread

of the borer. This may include the aggressive removal of infected and potential host trees.

610.3.1.6 Other insects and pathogens of concern

Potential insect and disease threats to the Bayfield County Forest for the next decade:

Probable Threats: spruce budworm, white pine blister rust.

Possible Threats: diplodia, introduced basswood thrips, bronze birch borer, large aspen tortrix, emerald ash borer, spruce needle drop, hemlock woolly adelgid, oak wilt, annosum root rot.

610.3.2 Funding

Desired control activities on the County Forest will be funded through the county forestry budget if possible if other sources of funding are not available. State and Federal money may be available in some cases. In addition, state legislation may provide monetary assistance in direct crisis situations where major control operations are undertaken. In case of gypsy moth outbreaks, the county may seek funding from the State of Wisconsin Gypsy Moth Suppression Program.

610.3.3 Legal Obligations

All control operations will comply with regulations as set forth in existing state and federal legislation. Refer to Wisconsin Administrative Code NR80, AG.29, and the Environmental Pesticide Control Act.

610.3.4 Special Projects

The County may cooperate with other agencies in forest pest research. See Chapter 200.

615 TIMBER THEFT

All cases of alleged timber theft on the County Forest shall be investigated and resolved promptly. The County will collect damages pursuant to s. 26.05 Wis. Stats. and may also pursue criminal charges under s. 943.20 Wis. Stats. and /or seek civil damages. Conformation of theft of timber cut or cut and removed from the county forest does not alleviate the county from payment under s.28.11 (9) Wis. Statutes. The County will also pursue remedies available through a timber sale contract if applicable.

615.1 TIMBER THEFT INVESTIGATION

The following procedure should be used in all cases of alleged timber theft:

- (1) Determination of Theft
 - (a) Gathering facts - The County, through its Sheriff's Department and along with assistance of the DNR liaison, rangers and wardens, will ascertain the facts pertinent to the alleged theft, including determination of the damages to the County. Legal counsel

representing the County should be involved in all aspects of investigation. Property involved in the alleged theft may be seized pursuant to s. 26.04 Wis. Stats. for use as evidence.

(b) Boundary determination -If property boundaries are involved, they should be established by the County. If necessary, as determined by legal counsel for the County, a legal survey will be conducted.

620 ENCROACHMENTS

The county will actively investigate all suspected cases of encroachments on the County Forest. To insure the integrity and continuity of the County Forest land, all cases will be dealt with promptly and in a consistent manner. The following procedures will be used in all cases of suspected encroachments:

- (1) The county will establish property boundaries; if necessary, a legal survey will be conducted.
- (2) The county will gather all facts.
- (3) The Committee, in consultation with the forest administrator, county legal counsel, and the DNR, will make a decision as to the disposition of the case.
 - (a) All above ground encroachments that are movable will be removed from county property.
 - (b) Permanent type facilities, such as homes, garages, and septic systems shall be addressed individually and will preferably be removed from County property. Alternately they may be handled by a land use agreement. Sale or transfer of the encroachment should remain an option depending on the circumstances involved and the viability of an adverse possession claim (s. 893.29 Wis. Stats.).
 - (c) Provisions in the land use agreement, if that option is pursued, may include granting the encroacher permission to encroach on the County Forest lands with the following stipulations: no other encroachments will be allowed; the permit is non-transferable; the county must be notified once encroachment is terminated; county continues full ownership and control of property; permittee agrees to waive any rights to any future declaration of ownership or interest in the encroached county property; county reserves the right to cancel the permit and the permit is to be filed in the office of the Bayfield County Forestry Department and all fees related to the land use permit shall be paid by the permittee.