

Infosheet #23 Woodlands and Wildlife

This infosheet provides background to Worksheet #23 of the *Environmental Farm Plan Workbook*. It outlines options you could adopt to address problem areas in your operation. In most cases you'll need more information before implementation: please refer to the resource materials listed at the end of the infosheet, and consult OMAF Environmental Farm Plan (EFP) Technical Advisors.

All options are classed as Actions or Compensating Factors. Actions address the areas of concern identified, and will change the rating to (3) or Best (4). Compensating Factors are alternatives that will adequately address the concerns, but will not change the rating in the EFP worksheets. This infosheet does not address the management of plantations or the Managed Forest Tax Incentive Program (MFTIP); this information is available elsewhere.

Woodlots

ISSUE	WHAT CAN YOU DO?
<p>23-1 Management</p> <p>Woodlots benefit the environment in several ways: creating oxygen, transferring carbon to the soil, keeping water tables in place, and reducing soil and water runoff. You can also incorporate trees into farming systems (agroforestry) to produce products such as veneer, timber, fuelwood, posts, poles, and sugar products, nuts, and wood-producing timberbelts etc. which have on and off farm value.</p> <p>Woodlots, especially treed swamps can be one of the most important habitats for wildlife on farmland.</p> <p>By clearing woodlots and using the land for intensive agriculture, you risk degrading fragile land by wind and water erosion. In dry areas, woodlot removal may cause soil loss and water tables to drop; in wet areas, water tables can rise to the surface.</p>	<p>OPTION #1 – ACTION</p> <p>Develop and follow a forest management plan for profit, wildlife habitat, and environmental protection:</p> <ul style="list-style-type: none">• examine potential of all woodlands – woodlots, conifer plantations, treed swamps, and mixed bush – and match with your needs and expectations• target desirable plant and wildlife species, and choose overall purpose for woodlot management i.e. timber, maple syrup and/or speciality woods – protect species at risk, it is illegal to harm or kill them (<i>Species at Risk Act, 2002</i>)• establish market or on-farm use of woodlot products• harvest according to your management plan and a standing timber sale agreement in order to receive full value for trees harvested - hire a certified forester to assist you with the selection, marking and hiring of reputable contractors to conduct harvest operations and obtain full value for trees removed• select woody species for harvest based upon your management plan objectives: take valuable, mature, or defective trees – not more than 30% of trees. <p>OPTION # 2 – ACTION</p> <p>Minimize damage to the woodlot environment and timber by:</p>

- designing access roads, stream crossings, landings and skid trails to minimize damage; (soil erosion and compaction) avoid wetlands and watercourses, follow contours where possible and rehabilitate damaged areas caused by skidding and hauling
- avoiding steep areas (12 % for roads & 20 % for skid trails). Cross-streams at right angles to minimize stream bank impacts and prevent water from flowing down skid trails into streams. Maintain buffers of natural vegetation between cut areas and waterbodies and significant wildlife habitats
- harvesting carefully – minimize damage to all trees remaining after the harvest growing stock. Set timber sale landings and other harvest activities, such as trails as far away as possible from water bodies.

OPTION # 3 - COMPENSATING FACTOR

Join a woodlot association or forestry certification group in your area. Acquire a greater understanding of the value of your woodlot, take forestry courses or a tree-marking course. Contact the municipality in which your forest is found to determine whether a tree bylaw exists and get a copy of it. Non-compliance could result in re-planting order, fines, etc. Forestry professionals should be aware of the existence of tree cutting by-laws.

FOR MORE INFORMATION:

Wood: Take a Stand and Make it Better, OMNR

Woodburners Manual: Manage the Woodlot for Profit, OMNR

Introduction to Agroforestry, P.A. Williams, ed., University of Guelph

A Silvicultural Guide to Managing Southern Ontario Forests, MNR Peterborough 1-800-667-1940

Managed Forest Tax Incentive Program, Ministry of Natural Resources or Ontario Forestry Association 416-493-7565

“*A Landowner’s Guide to Selling Standing Timber*”, available from Stewardship Co-ordinators or Ontario Woodlot Association

Best Management Practices Books: *Farm Forestry and Habitat Management*, Order No. BMP 01, pp. 30-32; *Fish and Wildlife Habitat Management*, Order No. BMP 10; *Buffer Strips*, Order No. BMP 15, pp. 126 - 129

23-2 Stand structure

A natural forest with numerous (multiple) layers of woodland vegetation with forest floor plants and shrubs, tree species of differing heights and age usually provides a diversity of habitat opportunities for wildlife.

OPTION #1 – ACTION

- create multiple layers of woodland vegetation over time from fuelwood, lumber and/or maple syrup production/harvests as well as wildlife habitat opportunities
- work with foresters to select a management system, thinning recommendations and their timing best suited to your woodlot characteristics
- work with biologists to develop a wildlife management plan that is part of your forest management plan.

OPTION #2 – ACTION

- consult a forester to assist with a soil and site evaluation to determine suitable tree species for planting their stocking rates per hectare (e.g. 2400/ha.), tree growth, and survival and average times between thinning.
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23-3 Timing of forest operations

Stick to the goals and objectives of your management plan, minimize environmental damage, maintain species diversity and retain significant wildlife habitats. Damage jeopardizes the future economic value and reduces the growth rate of injured trees.

OPTION #1 – ACTION

Protect your woodlot investment - negotiate a timber sale agreement with a harvesting contractor that stipulates the conditions of the harvest and the selling price of the wood.

OPTION #2 – ACTION

- things to consider as part of a timber sale agreement are: avoiding steep areas (12 % for roads & 20 % for skid trails) when harvesting,
- crossing streams at right angles to minimize stream bank impacts and prevent water from flowing down skid trails into streams and
- maintaining buffers of natural vegetation between cut areas and waterbodies and significant wildlife habitats.

OPTION #3 – ACTION

- reduce logging damage to remaining trees and understory vegetation, soils, tree regeneration and wildlife species by working cooperatively with your contractor
- refuse to start or continue a harvest when operations are done during spring break up, abnormal thaws and when operations are causing damage, despite pressure to get the job done.

OPTION #4 – ACTION

Aim for 0 % damage to remaining trees. Include a clause in your timber sales agreement contract that specifies the levying of damages for certain trees that are significantly damaged. Refer to the sample contract within the Landowners Guide to Selling Standing Timber.

OPTION #5 – ACTION

Inspect the woodlot during and after harvest for damage to remaining stems. Meet early and often with the logging contractor during the harvest. It is recommended that 90 % of the remaining and acceptable growing stock be free of major damage and that not more than 10 – 15 % of the site should be disturbed by harvesting activities (e.g. trail construction).

FOR MORE INFORMATION:

Consult the MNR Extension Note Series “*Selling Standing Timber*”, “*Do You Have a Healthy Woodlot, Promoting a Healthy Forest Through Tree Marking*”. Reference the booklet and/or brochure from the Ontario Woodlot Association and/or MNR - “*A Landowner’s Guide to Selling Standing Timber*”

23-4 Woodlot health

Numerous (multiple) layers of woodlot vegetation made up of forest floor plants and shrubs, tree species of differing heights and age usually indicates a healthy woodlot able to withstand pressures of weather and disease.

OPTION #1 – ACTION

- create healthy woodland by managing for a diversity of species and age classes of trees
- scout for the effects of insects and disease, invasive species and weather related effects of drought, ice storms, wind damage, fire and human impacts (unauthorized recreational activities).

OPTION #2 – ACTION

Inspect the woodlot after each harvest for damage to remaining stems. Wounds permit the entrance of diseases that can increase the chances of decay by more than 50 % within 20 years following the harvest.

OPTION #3 - COMPENSATING FACTOR

Reduce root and stem damage as well as soil compaction significantly by hiring a logger that works with horses or small equipment rather than excessively large equipment.

FOR MORE INFORMATION:

Consult the Ontario Woodlot Association or your local OMNR office for contractors using the appropriate equipment for southern Ontario woodlots.

23-5 Woodland livestock access

Allowing woodlands to be grazed intensively over 10-20 years causes irreparable damage. Grazing destroys tree seedlings, undergrowth vegetation, and wildlife habitat. Livestock damage tree roots by trampling, tree trunks by constant rubbing, tree foliage by grazing and eliminates the forest under story that contains the future forest and wildlife habitat.

OPTION #1 – ACTION

Eliminate access and/or Outdoor Confinement Areas from woodlands or restrict cattle access to less than 10% of woodlot and to areas that are not sensitive (e.g. avoid swampy areas):

- plant shade trees in pastures and install tree guards and fencing that offers adequate protection
- fence woodlands or consider fencing alternatives
- place water, mineral and feed away from woodlands.

OPTION #2 - ACTION

Establish a **Grazing Management Plan** where:

- permanent or long-term pasture is established away from valued woodlands
- place water, mineral and feed away from woodlands, wetlands and other sensitive areas.

OPTION #3 - ACTION

Provide Winter Access for low density grazing systems (cow-calf operations) where shelter is otherwise not available:

- allow access only when the soil is frozen
- remove livestock prior to soil thawing.

OPTION #4 - COMPENSATING FACTOR

Establish a designated shelter area for livestock:

- plant marginal lands to conifers and/or hardwoods
- plant treed shelter bands around pasture lands
- delay access until trees are well established (5 ft. high or more)
- control grazing density to reduce damage
- recognize that mature tree value will be sacrificed so that shelter may be provided.

FOR MORE INFORMATION:

Best Management Practices Books: *Farm Forestry and Habitat Management*, Order No. BMP 01, pp. 30-32; *Water Management*, Order No. BMP 07, pp. 81-82; *Fish and Wildlife Habitat Management*, Order No. BMP 10; *Buffer Strips*, Order No. BMP 15, pp. 40-42

23-6 Wildlife habitat planning

Many species of wildlife depend upon the forest. Knowledge of their habitat requirements makes it possible to select timber management activities that safeguard their habitats without jeopardizing the economic return on wood products.

OPTION #1 – ACTION

- ensure your forest management plan includes a wildlife management plan that recognizes the importance of key habitat features such as woodland ponds, wetlands, downed woody debris, mast-producing and cavity trees, shorelines and woodland springs
- establish hiking trails to enjoy the full recreational benefits of your property (including wildlife viewing)
- do not unwillingly destroy the habitats and species (plant and animal) that are protected by federal and provincial legislation (Federal **Species at Risk Act**, - Provincial **Endangered Species Act**).

OPTION #2 – ACTION

- mitigate wildlife damage in agricultural areas by allowing controlled hunting on your property
- plan your cropping practices well, especially where fields are close to your woodlot - encourage your neighbours to do the same.

FOR MORE INFORMATION:

Consult a biologist regarding a habitat framework for wildlife that is part of your forest management plan.

Refer to *How Much Habitat is Enough: A Framework for Guiding Habitat Rehabilitation in Great Lakes Areas of Concern 2nd Edition*, Environment Canada, 2004.

Refer to “*Birds on the Farm: A Stewardship Guide*”, Federation of Ontario Naturalists by contacting 1-800-440-2366 or visit www.ontarionature.org

23-7 Wildlife habitat in corridors fencerows, shelterbelts and windbreaks

Wildlife requires protected corridors of permanent vegetation to travel between natural areas such as woodlands and wetlands. Forested ravines, treed fencerows, shelterbelts, windbreaks, buffer strips, or treed farm lanes are all forms of wildlife corridors.

OPTION #1 - ACTION

Plan, plant, and manage a network of windbreaks, buffer strips, etc. that provide suitable corridors (a wide range of habitats with diversity) for wildlife:

- maintain existing corridors or where possible interconnect natural areas such as those found in fencerows, shelterbelts or buffers to woodlands
- account for wildlife needs when planning new windbreaks and buffer strips
- plant suitable fast-growing trees and shrubs in these areas
- help trees and shrubs grow quickly with weed control – water if necessary
- allow other shrubs and non-weedy undergrowth to invade once trees and shrubs are free to

Where there are no corridors, wildlife either restrict themselves to small natural areas, or are forced to risk moving to the next natural area – unprotected. Those wildlife trapped in small natural areas (e.g., songbirds) risk: running out of habitat requirements, overpopulation and disease, easy predation, and a restricted gene pool.

- grow (>6 ft. or 2 m)
- pile rocks and woody debris in corridors for additional habitat leave standing dead trees (snags) as perching sites for birds of prey or install nesting platforms to attract these types of birds.
- ensure corridors do not contain invasive species such as Buckthorn, Norway Maple and Garlic Mustard.
- remember it is best if connecting corridors contain vegetation that is similar to areas they are connecting.

FOR MORE INFORMATION:

Community Wildlife Involvement Program, OMNR, 1986, 378 pp.

Best Management Practices Books: *Farm Forestry and Habitat Management*, Order No. BMP 01, pp. 11-16; *Fish and Wildlife Habitat Management*, Order No. BMP 10; *Buffer Strips*, Order No. BMP 15

23-8 Wildlife in buffers

Buffers adjacent to fields and watercourses trap and treat sediments and other materials from farm fields, help prevent erosion and increase the soil's water-holding capacity and reduce the impacts of flooding and drought. They can also improve the range of wildlife habitat.

OPTION #1 – ACTION

- establish buffers beside wet areas and farm fields composed of woody species and grasses
- remember to ensure that it is protected when doing field operations adjacent to surface water such as applying nutrients or pesticides.

23-9 Problem (nuisance) wildlife and damages

Nuisance animals cause damage to crops, livestock, property, and people. They can cause direct loss to yield and affect profits, but also indirect loss, by spreading disease (e.g., rabies), and destroying habitat (e.g., beaver, porcupine) or causing damage to farm buildings. When habitat requirements aren't met, certain wildlife species may turn to crops, livestock, or farmstead buildings for their needs.

OPTION #1 – ACTION

Ensure that the habitats and species (plant and animal) that are protected by federal and provincial legislation (Federal *Species at Risk Act*, - Provincial *Endangered Species Act* are not unwittingly destroyed. Ensure that the correct permits are obtained to scare or kill nuisance wildlife.

OPTION #2 – ACTION

Identify the problem species, assess damages to crops/livestock and try suitable prevention measures:

- ensure predators are present on the farm to help control and balance the presence of nuisance wildlife
- identify nuisance animals – use sightings, tracks, droppings

- if problem doesn't happen often and doesn't result in noticeable loss, tolerate it
- try to prevent the problem – fence the field, use irritants (e.g., sprays, light, sound), move your livestock, or fix holes in buildings
- practice a comprehensive wildlife management program for nuisance species that removes food sources, modifies habitat (remove trees or branches etc.) and/or use repellents to discourage them.

OPTION #3 – ACTION

If the above steps fail, use control methods such as live trapping, lure crops, hunting, poison or lethal trapping in accordance with the Ontario *Fish and Game Act*:

- identify nuisance animals – use sightings, tracks, droppings
- look at the problem at the concession level – control of a nuisance animal on one farm could cause problems elsewhere – if the wrong animal is controlled and eliminated, other problems may occur
- acquire kill permits and/or hire licensed hunters/trappers to remove nuisance wildlife species
- if lambs are lost to coyotes and all coyotes are subsequently killed, rodent problems (groundhogs in soybeans) may become a problem. This can be worse if the predators were actually much larger "coy-dogs" – lambs are still at risk, too. Often new coyotes will re-colonize areas left vacant when others are removed (killed).

FOR MORE INFORMATION:

For nuisance wildlife and wildlife on the farm consult the Ontario Soil and Crop Improvement Association factsheets “*Probing Problem Wildlife*”, 2004 and “*Wildlife Wise*” or the Canadian Wildlife Service (CWS) for information on scare/kill permits @905-336-4464.

“*Probing Problem Wildlife: An Update on the Wildlife Action Project*”, Ontario Soil and Crop Improvement Association, Agricultural Adaptation Council, Ontario Farm Environmental Coalition and Ontario Agricultural Commodity Council, April 2004

“*Options for Controlling Beaver on Private Land*”, OMNR Extension Notes

Best Management Practices Book: *Fish and Wildlife Habitat Management*, Order No. BMP 10

Farmstead Areas

23-10 Shelterbelts and farmstead plants

Farmsteads without landscaping are not only poor wildlife habitats but have other disadvantages. These include:

- high energy costs, e.g., winter wind-chill, no shade in summer
- high snow removal costs, i.e., snowdrifts into areas that require removal
- low real estate value.

OPTION #1 – ACTION

Plan and create a low-cost landscape around the farmstead (using native species where possible) that reduces energy needs, controls snow, and provides habitat for diversity of species:

- plan for shading areas in the south and west
- plan to protect farmstead from prevailing winds
- increase cover with permanent vegetation
- plant windbreaks and shelterbelts first; then plant shade trees and shrubs; follow with ground covers and other small perennial vegetation
- ensure garden and non-native species such as Norway Maple, garlic mustard do not escape into fencerows and wooded areas
- erect nesting boxes, feeding stations, and bird baths
- place pond near farmstead where feasible
- prevent domestic dogs and cats from killing songbirds and small mammals
- exclude potential nuisance wildlife from farmstead buildings – repair small cracks and openings with caulking, metal screening, and flashing
- keep farmstead area free of food and feed waste materials that might be attractive to nuisance animals.

FOR MORE INFORMATION:

Shrubs for Wildlife, OMNR booklet

Landscaping for Wildlife, OMNR booklet

Best Management Practices Books: *Farm Forestry and Habitat Management*, Order No. BMP 01, pp. 11, 22-27; *Fish and Wildlife Habitat Management*, Order No. BMP 10

23-11 Resources for wildlife

OPTION #1 – ACTION

The farmstead can provide the best opportunity for enjoying certain kinds of wildlife. Here is some wildlife friendly ideas to help attract wildlife to the home, lawn and gardens, barn, drivesheds, lanes:

- to attract feeding birds choose wildlife shrubs like red osier dogwood, elderberry, highbush cranberry, nannyberry, serviceberry pin cherry and choke cherry etc. for foundation

- plantings around the house
- plant evergreen trees along with other hardwoods (oaks, sugar maple) as yard trees along with shrubs to offer wind protection cover and food for wildlife
- prevent outdoor house cats from being around bird feeders and birdhouses – they are known to kill approximately 12-14 birds/year
- erect nest boxes for cavity-nesting birds such as bluebirds, swallows and owls which consume large quantities of insects and mice
- encourage farmstead wildlife and birds by applying integrated pest management not only to your fields but your lawn and garden areas.

FORM MORE INFORMATION:

Birds on the Farm – A Stewardship Guide Spring 2004 Ontario Nature 1-800-440-2366

Best Management Practices Books: Fish and Wildlife Habitat Management, Order No. BMP 10; Pesticide Storage, Handling and Application, Order No. BMP 13; Farm Forestry and Habitat Management, Order No. BMP 01

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