

# BMPs FOR FOREST HEALTH AND CONTINGENCY PLANNING

## FOREST HEALTH

Knowing how your forest is doing may be as simple as monitoring or scouting it for obvious signs of problems. Scout your woodlands three or four times annually to check for degradation, unauthorized use, forest pests, and evidence of invasive species.

A forest will naturally cycle between healthy and unhealthy conditions over long periods of time. However, forests that are healthy now will be impacted by weather, insect and disease-related events, which will affect their overall health. Following through on these next guidelines will lessen the toll of unhealthy conditions.

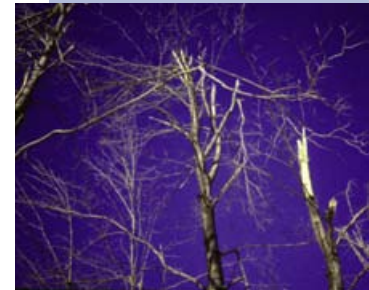
- ✓ Ensure that your forest is well-managed and appropriately stocked.
- ✓ Promote a diversity of species and age classes.
- ✓ Walk through your forest regularly looking for potential health problems.
- ✓ Keep a record of your observations.
- ✓ Monitor for invasive species and take steps to control their populations.
- ✓ Learn more about insects and diseases that could impact your forest.
- ✓ Keep livestock out of the woodlot.
- ✓ Minimize damage from machinery.
- ✓ Consult an expert if you suspect you have a problem.

**In severe cases, a disruption of forest health may not allow it to recover to a healthier condition without some intervention. The spread of disease may cause such severe die-off of tolerant hardwoods that the forest stand structure will change due to such factors as greater light penetration to the forest floor. When this occurs, species composition changes toward more light-tolerant species that may hold less commercial value.**

## CASE STUDY

This landowner harvested part of his woodlot without using BMPs. Although he thought he was doing the right thing by logging in the winter and taking a mix of poor and high quality trees, he harvested more trees than he should have. By opening the stand up too much, his “understocked” woodlot was more vulnerable to wind-throw. The following spring, a strong windstorm uprooted many of the trees he had left. The composition of this woodlot is forever changed and it will take decades before it yields any more forest products.

**Inappropriate harvesting can cause significant damage to residual trees.**



**The 1998 ice storm in eastern Ontario caused widespread damage to forests throughout the affected area. Although it would have been impossible to account for this type of disaster in a management plan, woodlots that were well-managed before the ice storm tended to fare better than those that weren't.**



## CONTINGENCY PLANNING

Management planning has to be a fluid process, allowing periodic adjustments for unexpected events.

### UNPLANNED EVENTS THAT AFFECT AGROFORESTRY MANAGEMENT

| EVENT             | IMPACT   |
|-------------------|--|
| SEVERE ICE STORMS | <ul style="list-style-type: none"> <li>• Occur infrequently</li> <li>• Well-managed forests are generally in a better position to withstand the impacts of ice storms</li> <li>• Over-thinned and unthinned stands suffer the most</li> </ul>  |
| DROUGHT           | <ul style="list-style-type: none"> <li>• Can have both short- and long-term impacts on forest health</li> <li>• Moisture is the most limiting biological requirement</li> </ul>  |
| INSECT ATTACK     | <ul style="list-style-type: none"> <li>• Forests are often adapted to periodic insect defoliation</li> <li>• Invasive insects like the Gypsy Moth and Emerald Ash Borer can cause significant mortality, upsetting the natural balance of the woodlot</li> <li>• Native insects are a natural part of the life cycle of a forest – evaluate any risks and options when considering a spraying operation</li> </ul> |
| FIRE              | <ul style="list-style-type: none"> <li>• Seldom a problem in southern Ontario forests</li> <li>• Conifer stands more susceptible than hardwoods</li> <li>• Fire breaks and access roads should be clearly identified in the management plan</li> </ul>   |
| INVASIVE PLANTS   | <ul style="list-style-type: none"> <li>• Can grow to dominate understory vegetation</li> <li>• Can exclude natural regeneration of native trees and plants</li> <li>• Can be very difficult to control – vulnerable areas require a specific preventive management strategy</li> </ul>   |
| WIND              | <ul style="list-style-type: none"> <li>• Can devastate small to large tracts of forest</li> <li>• Susceptibility to damage related to site – trees on shallow soils and shallow-rooted species</li> </ul>  |

**Trees that could be deemed a possible safety hazard should be removed during normal management activities.**

**If disaster strikes...**

- ▶ **assess safety risks and amount of damage to your woodlot**
- ▶ **seek professional help and advice, if appropriate**
- ▶ **cut unusable debris down to below knee level to avoid fuel buildup and enable regeneration.**

**Extremely dry weather can cause a significant amount of stress and weaken the tree, making it more susceptible to other problems.**

