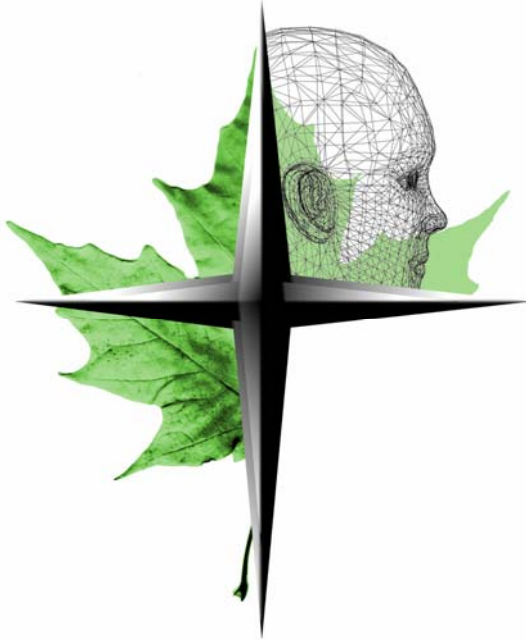


# C A S E S T U D Y

## F O R E S T P L A N N I N G W I T H R E M S O F T<sup>®</sup>



### Managing deer winter habitat with Woodstock

Province and licensees work together to ensure long-term viability of the species

Making allowances for deer wintering areas is an integral part of forest management planning in New Brunswick. More than 280,000 hectares are designated as deer winter areas on publicly owned lands in the province and yards range in size from 20 to 3000 hectares.

Crown licensees – the companies that manage and harvest wood from the publicly-owned lands in the province – must account for the deer yards in the Detailed Forest Management Plans they submit to the provincial Department of Natural Resources and Energy (DNRE) for review every five years.

Additionally, the licensees are required to submit deeryard specific management plans that set out what the licensees plan to do to manage the deeryards – categorized as either moderate deer wintering areas or severe deer wintering areas – so that the habitat is maximized over the 80 year planning horizon.

“Deer yards are intended to promote the viability of the deer population by ensuring shelter and thermal protection and a food source during the often harsh New Brunswick winters,” says Dan Beaudette, a biologist with the DNRE’s Forest Habitation Program. “But that is much more than a matter of ring fencing the area and labeling it habitat. These lands have to be actively managed and the licensees are responsible for setting strategies that for meet habitat objectives.”

Woodstock, Remsoft’s forest modeling software, is used by all the crown licensees in developing their strategic and tactical management plans and by DNRE in its review of the plans. The software is also used for the development and evaluation of the deeryard plans.

DNRE sets out the habitat objectives based on a number of criteria and tells the licensees how much of each habitat type (there are six types) must be maintained on each license. To develop deeryard plans – essentially mini-management plans - each licensee submits growth and yield curves for each stand type to the DNRE. The yield curves are then used as input into the department’s deer wintering habitat model that assigns a habitat window to each curve.

Used in conjunction with detailed stand cruise information, Woodstock models are then developed for the deer wintering areas to represent the current and future status of deer habitat.



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***“By using Woodstock for the strategic level plan and deer yard management plans we can make sure the habitat objectives fit within the overall strategic management plan.”***

But maintaining the area as habitat does not preclude carrying out management activity on the lands. Indeed, in some cases management interventions – pre-commercial thinning, and other silviculture activities – are necessary to attain future habitat.

One of the distinguishing features of deer wintering area models is that stand identifiers are included as a Woodstock theme thus producing stand-level harvest schedules. This approach results in tighter linkages between strategic and operational plans.

Having represented the stand level relationships between deer wintering habitat and management interventions in Woodstock, foresters can then easily develop and assess a range of management strategies that maximize the long-term supply of deer wintering habitat and allows for other management interventions.

“By using Woodstock for the strategic level plan and deer yard management plans we can make sure the habitat objectives fit within the overall strategic management plan,” explains Nick Demerchant, GIS forest planner with UPM-Kymmene Miramichi Inc.

“In the near future, we may look to use Spatial Woodstock to help with this habitat planning. It will benefit the process by showing the relationship between habitat and areas of proposed activity and to show where habitat will be in the future, because the habitat changes overtime.”

Though not obligated to do so, private landowners in the province are also managing for deer habitat as part of their long-term management planning.

“There is a feeling among land owners that helping to manage the deer population is part of their responsibility as landowners,” says Kevin Forgrave a forester with Northumberland Woodlot Owners Association – a cooperative representing 3,500 members owning 300,000 acres of land in the Miramichi region of New Brunswick.

“I am currently developing management plans for individual woodlot owners, but having planned for deer wintering areas already, I can use Woodstock to balance for multiple objectives – managing for both the habitat and another objective such as wood volume or recreational activities.”

More information about management objectives for NB Crown land can be found at <http://www.gnb.ca/0078/vision-e.asp>.

For more information about Woodstock, please visit <http://www.remsoft.com/forest>.

