[LET'S BE CLEAR ABOUT CLEAR CUTTING]

Clear cutting is perhaps the most emotional of all forestry issues. It conjures up images of vast mowed-down forests and barren wastelands. Public perception is often that this type of forestry is the result of poor management and destroys both the visual and natural landscape.

There is a misconception that clear cutting is the same as deforestation. This is not the case. Deforestation is the practice of removing the forest for the purpose of converting it to another land use, such as for urban expansion or agricultural development. This does occur on a relatively small scale in Newfoundland and Labrador as some communities grow and expand. But clear cutting is not deforestation: rather, it is a way of both harvesting and regenerating the forest.

A clear cut can look like a dead and barren wasteland. But take a walk through this area and examine the ground. There will be many tree seedlings of spruce, fir, pine and other species – a two centimetre tall forest! Removing the older trees gives these younger seedlings better access to sunlight and water and gives them the opportunity to grow and expand. A complete forest ecosystem still remains on a smaller scale until succession regenerates a new, thriving forest. Sometimes there are not enough natural tree seedlings to create a new forest. In these instances, foresters plant seedlings grown at a 'tree nursery' to give nature a helping hand.

Historical records show that, on average, a large forest removing disturbance, such as a fire or insect outbreak, occurs once or twice every century in the Boreal forest. Because of these frequent, large disturbances, the Boreal forest is characterized by stands of trees that are generally all the same age and, for the most part, the same species. Although clear cutting is undertaken on a scale much smaller than many natural fires or insect outbreaks, it is the practice that most closely resembles the large-scale disturbances that were common throughout the history of the Boreal forest. By creating an open area, clear cutting provides the direct sunlight and exposed mineral soil that most Boreal species need to regenerate successfully.

There is a great amount of science involved in selecting the species, age and location of trees to be harvested. Factors such as elevation, soil type and local climate must all be considered, and decisions based on the species and characteristics of the site. A thorough timber inventory and planning process is carried out before logging companies harvest any area in the province. Roads and water crossings are built in accordance with strict environmental guidelines to avoid erosion and limit impact on fish spawning areas and animal habitat. Snags, or dead standing trees such as that pictured to the left, are kept on the site as habitat for birds and other woodland animals.

Harvesters are required to leave no-harvest buffer zones around water bodies, cabin development sites and other sensitive areas. In public water supply areas, these can be significant as indicated in Table 1. Many skidders and harvesters use a track system rather than tires to distribute the weight of the equipment over a larger area, limiting damage to the forest floor. In the harvesting process, the limbs and tops of the trees are left on the ground to provide a brush mat on which the machinery travels, protecting the ground beneath. In fact, seedlings are rarely crushed or damaged when run over by such machinery, and can spring back up with no permanent damage inflicted. Under the right circumstances, clear cutting is environmentally sound, cost effective and safe for people working in the forest and appropriate to the Boreal forest ecosystem.

Table 1 – Schedule of no-harvest buffers for protected water supply areas, "Policy for Land and Water Related Developments in a PPWSA" (ENVC, 1999)

WATERBODY	WIDTH OF BUFFER ZONE (NO HARVEST ZONE)
Intake pond/lake/reservoir	A minimum of 150 meters
River intake	A minimum of 150 meters for 1 kilometre upstream and 100 meters downstream
Main river channel	A minimum of 75 meters
Major tributaries/lakes/ponds	A minimum of 50 meters
Other water bodies	A minimum of 30 meters

Furthermore, foresters don't abandon an area after it is harvested. Trained professionals closely monitor the area for many years to ensure that the cutover regenerates. Recently harvested areas tend to attract sun-loving vegetation, such as raspberry and blueberry shrubs. As the shrubs and plants in the clear cut grow, tree species more adapted to a shaded forest will slowly replace the sun lovers.

It's true that most people prefer a lush, boreal forest ecosystem with established fir and spruce trees to an open clear cut area. But the unattractiveness of a clear cut passes, usually sooner than expected! In three to four years, succession has filled in the clearings, the area has lost its brown, disturbed appearance, and the hillside is green in the summer and in the fall, awash in color. In six to 10 years, the young trees are free to grow above the bramble and smaller shrub-like trees. In 10 to 14 years, the young stand of 3 to 5 metre tall trees is again an aesthetically pleasing place. Finally, in 35 to 40 years, the growing trees are once again a valuable timber crop.

Questions:

1. Why is the public perception of clear cutting so negative? Is this perception valid?
2. "Clear cutting is appropriate for Boreal forests." Explain the validity of this statement.
3. List five measures that are taken to ensure that clear cutting is conducted so as to limit negative impacts on the Boreal forest ecosystem.
4. What are snags, and why are they left standing in harvested areas?
5. Why are buffer zones left around water bodies, as seen in Table 1 above?
6. Some foresters use the term 'regeneration harvesting' rather than 'clear cutting.' Do you think this is an appropriate term? Why/why not?

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