



## NELSON WINDTHROW – LESSONS TO BE LEARNT

### INTRODUCTION

A significant windstorm in the Nelson Region during October 2004 affected up to 1,000 hectares of mixed-age forest. Most significantly affected were Weyerhaeuser and Carter Holt Harvey as the largest forest owners in the region. Most tree damage resulted as wind caused trees to snap off or topple over, often creating a ‘domino effect’ pushing over other trees within the stand. Many private woodlots were included in the indiscriminate devastation.

This bulletin identifies some valuable lessons worth considering by woodlot owners, particularly those with woodlots nearing maturity planted on wind prone sites.



### ACCESS

Insufficient primary access meant that landings and logging roads could not be installed quickly. This was further compounded by the significant hazards of toppled trees which made surveying of road grades virtually impossible.

Good access tracks already installed at least to 4x4 standard on a logging truck grade would have enabled machinery to clear the routes and facilitate quicker and safer extraction.

### CONTRACTOR AVAILABILITY

Nelson did not have spare harvesting capacity at the time of the storm, which meant that many woodlot owners had to wait until contractors became available. This put the wood at risk of degrading and lowering salvage returns.

Having a contractor organised, or having access to contractors, would have enabled many woodlot owners to commence salvage operations sooner. It is also critical to identify what part of the woodlot is damaged, and commit as soon as possible to a salvage operation.

### STAND RECORDS

Poor stand records meant many woodlot owners and harvesting contractors were left guessing at the quantity and quality of resource affected. One contractor estimated 25% more volume than was actually salvaged, the result being that the volume extracted did not cover his costs.

This reinforces the value of good stand records, which provide estimates of the quantity and quality of wood in the woodlot. Inventory data is usually collected during tending operations, mid-rotation and one or two years prior to harvesting. Good historic data is valuable in a wind throw event since there is no opportunity to do further measurements.

Poor stand records can lead to:

- Higher harvesting costs due to contractors building in a risk-premium.
- Less structured marketing of the logs and lost revenue opportunities.
- Highly uncertain forecasts of total yields, costs and revenues.

## MAPPING

Without maps or with out of date or inaccurate maps the woodlot owner, contractor and manager are left ‘best-guessing’ what areas and volumes need to be harvested. Immediately following the Nelson wind throw, a local mapping company responded quickly and undertook aerial photography of the affected areas. This proved to be particularly useful for highlighting the worst affected areas. Harvest managers and contractors were then able to use these recent photographs to prioritise jobs, commence planning and costings to retrieve the wood.

Forest mapping showing stand details including age class, topographical features, contours and any existing tracking would have greatly increased the information immediately available to contractors and harvest managers. While the actual areas affected can best be captured with aerial photographs, accurate forest mapping provides much of the necessary initial detail to get planning underway.



## INSURANCE

How everyone wishes that they had taken insurance, particularly wind cover, over their trees! Did you realise that this insurance cover is available? Many woodlot owners have been left in the unenviable situation of trees blown down which are often too young to profitably salvage. This leaves a land-use dilemma since the area has to be cleared for subsequent planting or other land use; a costly exercise if value cannot be recovered from the wind-blown trees.

## BEING HARVEST READY

Ideally as woodlots move from the tending phase toward maturity, woodlot owners are strongly advised to consider the implications of wind damage to their trees. Are records, mapping and access available for contractors and harvest managers to use in preparing salvage operations? If the woodlot is ‘harvest ready’, and such an event occurs, the harvest manager can quickly have harvesting operations underway, thereby maximising the value of any wood recovered. Many woodlots that were affected in Nelson took over four weeks before contractors could commence operations; some are still to be started four months later. The time delay has only added to the increasing amount of degrade as the wood is affected by sap stain and logging and cartage rates rise as wood dries out.

**Are you ready? Here is a checklist to help you find out.**

	✓
I have legal access to my woodlot	
I have logging roads surveyed, tracks along harvest routes, and know where landings can be located.	
I have engaged a harvest manager who can provide contractors if required.	
My stand records are up to date, and I have some inventory taken within the last five years.	
I have maps to harvest standard, i.e. maximum scale 1:10,000 with 10m contours.	
I have insurance for stands, which will be too young to salvage, and/or older stands at risk.	

If you ticked all of the boxes above then you are well placed to respond in the event of a major wind throw event. If you have any queries in regard to the above items, contact your nearest PF Olsen and Company Ltd branch. PF Olsen and Company Ltd can assist with all of the outlined harvest planning and insurance issues.

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