

The recovery of windblown timber from West Coast public conservation land

Jose Watson

Abstract

This paper discusses the enactment of the West Coast Windblown Timber (Conservation Lands) Act 2014, the interest in recovery from the timber industry, the role of the Department of Conservation (DOC) in salvage management, the management of ecological impacts of windblown timber removal, health and safety, revenue for conservation, and how long the removal of timber is likely to continue.

Enactment of special legislation to allow recovery

Windblown timber has been recovered from public conservation land on the West Coast after severe south east gales from the tail end of Cyclone Ita on 17 April 2014 caused wind damage to over 40,000 ha of indigenous forest (see Figure 1). From large swaths of mature beech podocarp forest north of Westport to small, rare, remnant alluvial tōtara matai forest in Whataroa, the scale of damage was severe.

In June of that year, the then Conservation Minister Dr Nick Smith announced the enactment of special legislation to enable the recovery of high-value windblown native timber on West Coast public conservation land.

The resulting West Coast Windblown Timber (Conservation Lands) Act confines the recovery of useable wood to areas affected by Cyclone Ita and specifically excludes World Heritage Areas, national parks, ecological areas and the white heron sanctuary reserve at Whataroa. The recovery of timber is limited until 1 July 2019 when the Act expires.

The removal of timber from affected areas is being overseen by DOC. It is now 36 months since Cyclone Ita and the extraction programme is winding down, with the quality and quantity of readily available timber declining along with the amount of timber being extracted and the number of active operators (down from eight to four).

Timber industry interest

The first authority granted under the Act was implemented in November 2014, and to December 2016 authorities had been granted over 31 sites to eight approved operators. A total of 8,000 m³ of timber has been extracted, with 6000 m³ of this being rimu, 1900 m³ beech and the balance spread over kahikatea and matai. Overall, the amount of timber salvaged is a tiny proportion of the many millions of cubic metres estimated to have fallen during the windfall event.



Log audit, Lake Kaniere, Hokitika



Logs split before extraction, Okuku, Taramakau

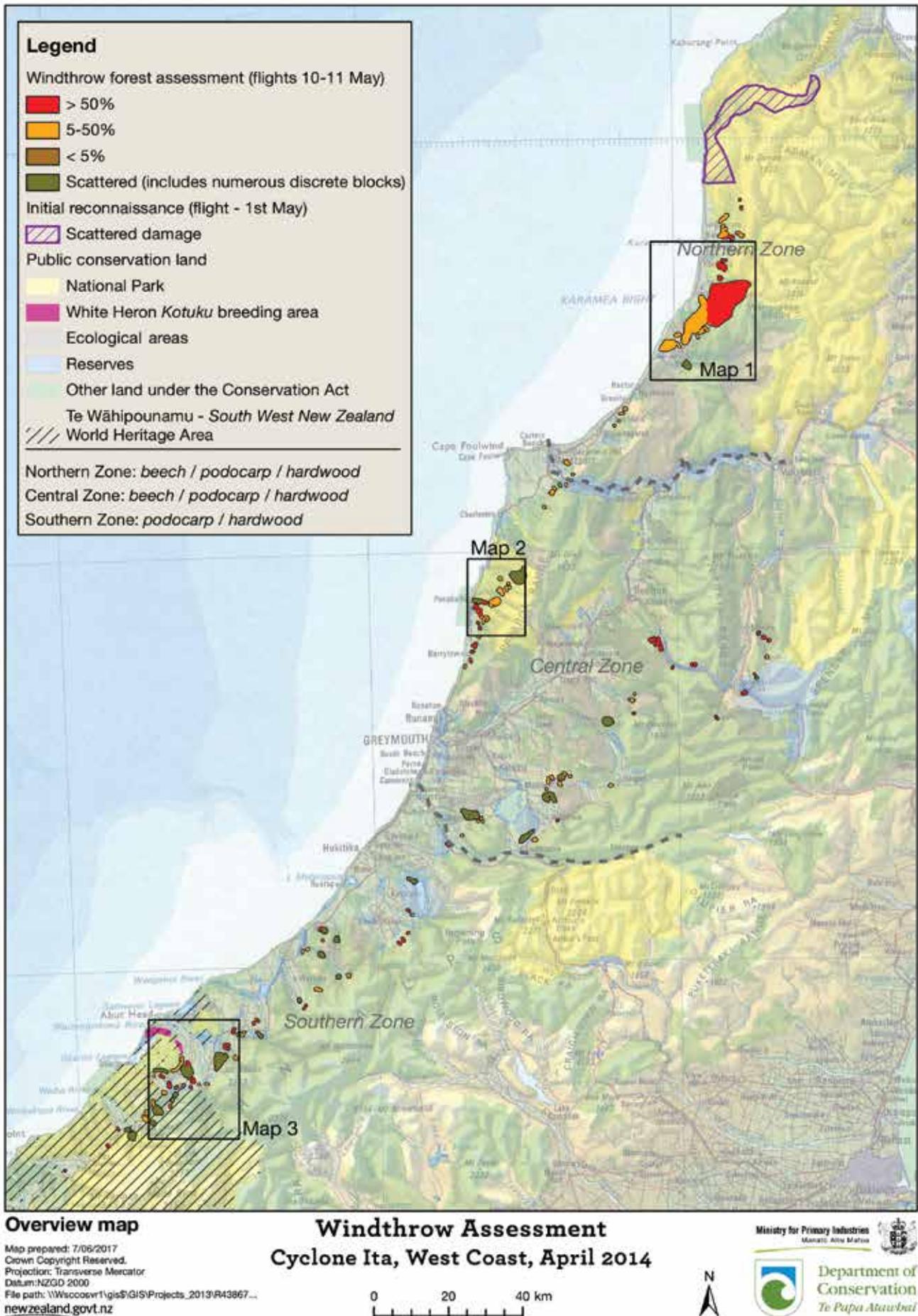


Figure 1: Cyclone Ita windthrow assessment

Salvage management

DOC has led the implementation of the Act with considerable assistance and advice from the Ministry for Primary Industries (MPI) on timber industry processes, standards and practices. This cross-government collaboration has been important to ensure that the timber is removed safely and with minimal effect on the environment.

Ecological considerations

Removing timber from forests with minimal ecological impact is something that requires careful consideration. Ecologists and resource managers from Landcare Research, Lincoln University, MPI and DOC worked together to advise how the timber extraction could be undertaken in a way that minimised effects on forest ecology and the environment. From this, a timber allocation model and extraction methodology was developed that recognises the natural forest regeneration processes and habitat and nutrient cycling values of windfall trees.

The timber allocation model determines the quantity and type of timber allowed to be salvaged from particular areas.

For every hectare of windblown forest where salvage is authorised, a hectare of the same type of windblown forest in the same area is out of bounds. This means that 50% of the windfall area is not disturbed.

In the salvage area itself, half of the large stems of common timber species are allowed to be harvested. For the rarer species such as matai and tōtara, a smaller

proportion or, in some cases, no take is allowed. Therefore, even in salvage areas a minimum of 50% of the large fallen stems are retained in forest. Also, a maximum timber volume of no more than 10% of total average biomass is taken from any given area.

Harvest methods must avoid adverse effects on natural processes, forest regeneration and soil and water. Approved operators are not permitted to create new roads and skid sites, or to take large machinery off existing roads. Consequently, most of the wood is being taken out by helicopter, either as whole logs or cut timber from portable mills.

A small number of logs within 50 m of existing roads have been authorised for winch extraction. These extractions are only approved where the machinery is not required to leave the formed road and understorey damage can be minimised.

Health and safety

As a forest 'owner', on behalf of the Crown, DOC has principal responsibility for operators under the Health and Safety in Employment Act 1992. Managing health and safety has therefore been a major part of DOC's administration of timber recovery work. What this has meant in practice is extensive oversight of timber removal by DOC and MPI staff, high engagement with operators in safety planning, and time out on-site ensuring that good planning is followed up with safe practices. So far, this approach has meant that there have been no serious harm or lost time injuries.

Operating with a zero harm philosophy is a key priority. The forestry industry has a high incidence



Log extraction, Okuku, Taramakau



Log landing site, Lake Kaniere, Hokitika

of serious harm and fatality, and it is well known that windblown forests can be some of the most dangerous wood to harvest.

An important difference between public conservation land and plantation windfall is that in most cases machines will not be available to assist in public conservation land, whereas they are often available in plantation. In both windblown plantation and indigenous forests the ultimate measure to avoid harm is to walk away from trees where hazards cannot be adequately managed. Judgement and choice to not select trees that would have been safe with a machine, but unsafe without a machine, has been key to the health and safety management approach throughout the project. Consequently, the experience of operators has been an important consideration.

Revenue for conservation

After the costs of project implementation are removed it is expected that \$1 million will be available to be invested in conservation actions on the West Coast. Weed control projects in the Karamea Estuary, Caves Stream, Ross and Landsborough were completed in the 2015/16 year, \$140,000 was allocated for the 2016/17 year, and DOC plans to invest the remaining

revenue over the next four years across weed, animal pest and high priority site work.

Many weeds that pose a significant threat to West Coast ecosystems and landscapes are still at a level where they can be eradicated and/or contained. Money from the timber will be used to develop strategies and methods of control for these pest plants, as well as doing the control work itself. Weeds like holly are present in localised areas on the West Coast and pose a significant threat. This plant grows in the shade, is spread by birds and overtakes native species. An example of a project initiated with the revenue is a trial to test different ways of controlling or eradicating this difficult pest plant.

How long will the timber removal continue?

It is 36 months since trees were damaged by Cyclone Ita and the biological processes that break down timber are hard at work. It is looking unlikely that significant operations will extend beyond 2017. However, this is dependent on factors such as how fast the remaining timber deteriorates and the cost and returns to operators.

Jose Watson is a Hokitika-based Communications Advisor for the Department of Conservation. Email: jwatson@doc.govt.nz.