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JUDGES' REPORT FORESTRY

MERRILL AND RING WITH BLENHEIM ESTATE LIMITED

INTERVIEWED	Siobhan Allan, Merrill and Ring; Aryn Town, AT Tree Services; Kim Carter, Kelly Logging
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JUDGES	Matt Oliver, Ket Bradshaw, Penny Wardle

INTRODUCTION

Forest management company Merrill and Ring is going above and beyond what's required to harvest pines around ecologically significant sites at Blenheim Estate Limited's Branch River plantation.

Not only are pines being felled and extracted more carefully but endemic tōtara seed (a cross with Halls tōtara) is being collected in these forest remnants and grown out to seedlings for planting as a native buffer. Protection under QEII National Trust covenants has been signed off.



Ownership and management of the Branch River plantation - on steep land above the Branch and Leatham Rivers – changed part way through harvesting. Higher standards are now being demanded and communicated within the company and beyond, from harvest managers to those working on-site to extract pines. This has included hillside discussions with all contractors and crews at tail-gate meetings.

The judges were impressed by innovative thinking to protect biodiversity and manage slash and sediment, an industry-wide issue not specific to Merrill and Ring.

Skid-sites looked to be stable and managed to appropriate standards but a volume of unconsolidated material sitting on top of the skid site is at risk of mobilisation in an extreme weather event. While there may be a cost to removal, there would be benefits to the environment in reducing this risk.

As a large forest management company overseeing thousands of hectares of pine plantations in Marlborough, Merrill and Ring has the potential to be a positive industry influencer. By aiming for best rather than good practice, they could nudge other forest managers and owners towards prioritising environmental sustainability while improving profitability and health and safety on the hill.

GENERAL INFORMATION

Merrill and Ring manages Blenheim Estate forests for its Australian owners, New Forests. This includes the Branch River block, rising steeply above the confluence of the Branch and Leatham Rivers.

Within this block are four Significant Natural Areas (SNAs) identified in an ecological survey and recommended for protection along with control of animal pests and weeds. The largest tract comprises kanuka forest scrub and shrubland on hill slopes with tōtara filling gully bottoms and foot slopes with occasional stands of red and black beech at lower elevations.

New Forests' website statement of being "at the leading edge of forestry, land management and conservation" must be a driver towards sustainable management.

Overseas Investment Office conditions of purchase include following Department of Conservation (DOC) requirements, such as sensitive harvesting around SNA sites and ultimately protection. Under previous ownership, these remnant areas were badly damaged by pines being felled and dragged out.

Merrill and Ring acknowledges that past practices have not always been perfect. However, over recent years the culture has been changing, recognising that everyone along the industry chain is answerable for any failure to manage forests in a sustainable way – environmentally, socially and economically.

There is a visible change between where logging was carried out for the previous and present owners, despite the same contractor (Kelly Logging) being employed. Past practice was to remove every tree possible, including felling pines within and into SNA areas and dragging them out, which damaged native vegetation. Under Merrill and Ring and New Forests, pines in SNA sites are drilled, poisoned and left standing to gradually rot. A tethered feller is used to pull pines above SNAs uphill towards a skid site, without damaging native vegetation.

Judges were also impressed that Merrill and Ring (acting for New Forests) has:

- Sought expert advice from specialists including contractor Tony Pruden who is skilled at tidy-up jobs such as difficult removals of logs from waterways; Marlborough District Council biodiversity coordinator Mike Aviss re seed collection; Marlborough Sounds Restoration Trust for work over the last 10 years treating wilding pines; Aryn Town, (experienced in biodiversity restoration) for poisoning pines and collecting tōtara seed as well as planting natives and pines.

- Expanded SNA sites by planting surrounding areas in tōtara grown from seed sourced on the site. Not only will this protect native ecosystems but will ultimately encourage efficient harvesting. (It's easier to harvest around large biodiversity-rich sites than scattered fragments).
- Poisoned (drilling and injecting) standing pines in and adjoining SNA sites rather than felling and pulling them out. This reduces damage, minimises weed invasion and enables greater areas to regenerate. The standing dead trees provide roosts for birds.
- Looked to past management practices to reduce impacts, e.g. root-balls of wind-blown trees which can't be easily removed are now left in place (with longer stems "toothpicks"). Slash is stacked behind some high stumps to prevent loss into gullies.
- Donated \$5000/year to the Marlborough Falcon Trust with a representative invited to talk to harvesting staff about what to do if they encounter falcons (suspend harvesting when falcons are present during the nesting season, eggs can be removed and incubated by the Trust with DOC help if necessary).
- Entered the Awards early in the environmental management transformation process, providing an opportunity for feedback and an incentive for continuous improvement.



PROBLEMS AND HOW THEY HAVE BEEN TACKLED

- Kelly Logging supervisor Kim Carter says it is confusing for crews to work on one site where they are expected to retrieve every stick whatever the environmental risks, then move to another where the top priority is to avoid damage. Merrill and Ring intends the same eco-friendly practices to be used regardless of site/forest owner. Once best practices are passed down the hierarchy to on-ground workers, they become standard operating procedure.
- Merrill and Ring and many of its larger clients belong to the Forest Stewardship Council (FSC), an international certification scheme which requires environmentally appropriate, socially beneficial and economically viable management of forests. Merrill and Ring is driving clients who don't already belong to join (including Marlborough Regional Forestry owned by the Marlborough District Council and Kaikōura District Council, where the process is under way), and uncertified smaller forests to also meet standards.
- Root-balls from windfall trees and waste logs have rolled down slopes, sometimes blocking waterways and endangering lives. Remaining root-balls were removed from waterways and harvesters advised to return to the past practice of leaving them on hillsides with stump and some stem attached to keep them stable.
- In the past, trees were planted everywhere they could be, but planting is now strategic:
 - Areas between plantation forests and native areas are left unplanted, to regenerate into native species with any pines hand-pulled. This avoids later felling trees into native vegetation.

- Trees that have been planted too close to streams are felled to waste at about 10-years-old. This minimises costs and reduces potential damage, compared with later dealing with fully grown trees. Future plantings will be kept back from waterways, creating open corridors.
- Planters are told to keep trees 2-3 metres back from the road batter as trees by roads cause shade which allows wet spots to develop and requires expensive application of gravel to avoid damage. These areas will regenerate into low-stature vegetation, improving stability and minimising sediment loss during the forest rotation. This is also a sediment mitigation technique.
- Trees are not planted on unsuitable sites like rocky bluffs where they will later be difficult (sometimes impossible) and expensive to remove. These are often special sites for native plant species.
- The person allowed to hunt this forest was “farming” feral pigs and deer resulting in high numbers. Hunting has been opened up to more people through a restricted permitting system to increase the pressure on feral animals. Hunters are people with a stake in the block, e.g. neighbours and staff.

SUMMARY

Judges were impressed that Merrill and Ring is moving towards a triple bottom line approach to forest management that should ultimately generate a solid reputation. The natural environment, health and safety and economics are starting to be considered together. For example, it's recognised that the environmental and economic costs of extracting every log seldom outweigh returns and the job can become dangerous.

What stood out to the judges was the recent turnaround in harvesting practices on the Blenheim Forests block, visible on the hillside. This is despite the harvesting crew originally employed to tackle this job staying on under new ownership.

One side of an ecologically significant site looks battered with large gaps where pines have been felled and/or dragged through. The other side is relatively unscathed with some poisoned trees left in place to gradually rot. Not only does this make environmental sense but saves the substantial cost of extracting hard-to-reach pines, likely to significantly exceed any returns.

Tōtara seed has been collected from mature trees in SNA sites and propagated, with the first seedlings ready to plant out this winter in a wide buffer zone surrounding the forest. Buffer areas will not only help protect biodiversity but will also make logging more straightforward, with a solid block of native forest easier to protect from damage during harvesting than scattered fragments.

Other Marlborough forest companies could learn from Merrill and Ring's success at turning around its approach to harvesting around SNA sites and working towards its long-term protection.



SUGGESTIONS

- Keep developing a holistic view of where to plant so trees in the wrong place won't cause problems down the track (e.g. by roads/boundaries/waterways or alongside SNA areas). Otherwise, remove badly sited trees earlier rather than waiting until harvest when this will cost more and pose greater health and safety risks.
- Employ staged logging within and between catchments to avoid increased sediment loading of waterways. Let areas recover before logging adjoining sites. This also reduces landscape impacts.
- Be an influencer – Merrill and Ring could take an active role in the Marlborough Forest Industry Association and be part of a LIDAR mapping project with the Marlborough District Council. This will produce contour maps with a finer scale and ultimately help identify erosion vulnerability leading to better planning of pine plantings.
- Use a battery-powered rather than petrol drill when poisoning pines as these are safer, lighter and easier to use.
- Seek knowledge and support from the South Marlborough Landscape Restoration Trust (the Branch River Forest adjoins the Branch/Leatham Management Unit for wilding conifers) and the Marlborough Sounds Restoration Trust.
- Ongoing pest and weed control will be essential for biodiversity to recover in the remnant fragments of bush.
- Process logging debris through a chipper and use the chips as mulch in SNAs or as an energy source for nearby properties.
- Ensure future roading and skid sites are planned and created well ahead of harvesting and avoid roading through SNA boundaries. Look closely at skid sites' size and award equal importance to environmental considerations (soil and hillside disturbance) and operational efficiency.