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# CAWTHRON MARLBOROUGH ENVIRONMENT AWARDS 2021

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## JUDGES' REPORT

### LANDSCAPE AND HABITAT ENHANCEMENT MARLBOROUGH SOUNDS RESTORATION TRUST

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#### INTRODUCTION

The Marlborough Sounds Restoration Trust (MSRT) wilding conifer control programme has made a huge impact on the Sounds landscape, with results so dramatic they can be seen from space. It is well on the way to achieving major suppression of pines and the restoration of native bush across a significant portion of the landscape.

Radiata pines were overtaking native plants as the dominant species in parts of the Sounds. Left uncontrolled, pines grow fast and form dense infestations that out-compete regenerating bush for water, light and nutrients. They threaten the Sounds natural landscape, dominate skylines, and put indigenous habitats for plants, birds, lizards and invertebrates at risk.



The Trust uses various techniques for killing wilding pines, depending on the tree age and location.

Success has given the Trust high credibility, attracting ongoing support from Marlborough Sounds landowners, sponsorship, and in-kind help as well as new benefactors.

This innovative and aspirational project was ahead of its time in identifying the threat of wilding pines to indigenous biodiversity and attracting sponsorship to carry out landscape-scale control. Its ongoing success has inspired the development of other wilding control Trusts, especially in the South Island high country.

In 2020 MSRT diversified into animal pest control. This pilot project is part of the Trust's overall goal of restoring and protecting the natural environment of the Sounds.

## GENERAL INFORMATION

Volunteers formed the MSRT in 2003. Five years later on-the-ground control began, mostly of *Pinus radiata* and also *P. pinaster* and *muricata*, on public and private land in inner Queen Charlotte Sound. Efforts have since extended into outer Queen Charlotte Sound, Kenepuru Sound, outer Pelorus Sound and D'Urville Island.

Pines are controlled mostly by drilling and injecting with metsulfuron herbicide which causes the trees and cones to die, slowly break down and eventually collapse.

Small trees and seedlings are hand-pulled or sawed. Spot wand-spraying by helicopter is used on hard-to reach trees. There have been good results from aerial boom-spraying large areas including an abandoned woodlot. This was treated only after the owners removed invasive old man's beard and passionfruit vines on the boundaries to prevent a further threat to native regeneration.

MSRT acts as a hub to facilitate the funding and management of the wilding pine and pest control, with almost all work carried out by three professional contracting companies plus a few trusted volunteers. This guarantees professionalism and ensures the work is undertaken safely by trained and experienced operators.

The Trust takes a strategic and staged approach to wilding control, focusing first on areas with the greatest return on efforts. Inaccessible pines are sometimes left in place on the assumption their seedlings will be suppressed as native forest grows.

Five trustees are responsible for governance. Andrew Macalister manages control operations and Siobain Browning is project coordinator, her knowledge of pest control enabling the recent expansion into a pilot trapping programme.

A key to the Trust's success has been engaging with local residents to raise funds and in-kind support such as providing accommodation for the work crews. For example, in 2018 residents of Maraetai Bay, Tory Channel, requested help with controlling wilding pines. They have since formed a Wilding Pine Club, contributing \$20,000 a year towards the project over three years. The Rata Foundation provided two-thirds of funding.



In 2020 the Trust diversified into pest control, installing rat, possum and stoat traps on Double Cove peninsula. Sixty bach owners are funding this pilot project aimed at creating a wildlife sanctuary across the 160 ha headland. The Nelson Marlborough Institute of Technology has offered trainee Department of Conservation (DoC) rangers as volunteers.

MSRT also advises landowners and residents' groups wanting to control wilding pines outside Trust-targeted areas. Information is posted on the Trust's website.

## THE JUDGES WERE IMPRESSED BY

*Planning and efficiency:* the Marlborough Sounds is divided into 14 management sectors, each with its own plan. Work is under way in six sectors, prioritised on criteria including landscape values, biodiversity, feasibility, reinvasion risk and community buy-in. There is quarterly reporting of results in each sector where work is being done.

*Leading by example:* Communities and landowners are following the example of the MSRT, doing their own wilding pine control as they adopt the Trust's objectives and techniques.

*Use of technology:* A GPS location is recorded for every tree treated and this is overlaid into satellite photos. Track logs are kept of contractors as they work which allows the project manager to see whether work has been completed. Pest trapping data is recorded on TrapNZ.

*Good reputation:* MSRT has a strong track record which leads to high credibility and trust from the community and key organisations. For example, when the Double Cove trapping programme was launched, there was 95% community buy-in.

*Visual evidence:* The expanses of dead and dying pine trees in the Sounds is clear evidence of the success of MSRT. The difference between areas where wildings have been controlled and where they haven't is the Trust's best marketing.

*Public profile:* The work of the MSRT regularly features in the media, the Facebook page is kept updated, and the website provides detailed information. A brochure with simple, timeless information is available to passengers on the InterIslander, explaining why they see dead pines as they sail through the Sounds.

## PROBLEMS AND HOW THEY HAVE BEEN TACKLED

- 5% of the cost of wilding control is required for maintenance which involves returning to the site to deal with wilding seedlings for at least 10 years. These trees grew from seed that dropped before the trees were poisoned and take time to grow to visible height. About half

the required follow-ups have been done but repeat visits will be needed. The Trust may eventually require landowners to do this themselves as it is much easier than initial control.

- Non-pine weed trees are also considered for control, depending on the environmental threat posed. The Trust has controlled willow-leaved hakea, a fire-resistant Australian native which is invading ultramafic areas of Rangitoto ki te Tonga/D'Urville Island. The Trust also gave the Waikawa Ratepayers and Residents Association advice and support to kill large wattles.
- Harvesting plantations and woodlots is uneconomic in parts of the Sounds but landowners sometimes want them gone. The Trust considers requests to remove trees, sometimes aerial boom-spraying large areas where there are no other invasive weeds which would prevent native regeneration.
- There was early resistance to wilding control due to use of poisons. Transformation of the landscape has brought people on board with some now doing their own control in areas outside targeted zones, with Trust support. Landowners who initially refused access are now requesting that wildings be removed.
- Landowners don't always use recommended methods (e.g. felling mature pines instead of drilling with herbicide, which increases the likelihood of spread by creating light gaps where seedlings grow; felling under power-poles which is an unsafe practice; and killing trees too close to the water's edge). To promote safe and effective removal, MSRT provides "how to" resources on its website.
- Metsulfuron herbicide which the Trust buys at a reduced price is given away to people doing wilding control. Drills and drill-bits are also loaned out.
- DoC manages about 50% of the Marlborough Sounds area. Along with the Marlborough District Council, DoC is an ex-officio member of the Trust and provides annual community funding and in-kind support such as boat transport for crews. Where harvesting is viable, pines on Public Conservation Land (usually overplanting from 25 years ago) are removed when neighbours harvest. This has provided some funding for the ongoing management of the sites and to address other wilding infestations.
- The Trust pioneered wilding pine control in Marlborough but several similar projects now compete for attention, funding and labour.
- The aim is to have one-third community funding. A Givedittle page attracts regular donations and local businesses provide support, often in-kind. In September Government announced Covid-19 related funding for MSRT, about \$350,000 in year one and \$150,000 in years two and three.





- Spending funding can itself be a challenge as it takes time to develop projects and secure qualified and trusted crews to work in difficult conditions and remote locations. The solution has been to build relationships and encourage competent operators to extend their own teams.
- Some people question the removal of wildings because they sequester carbon. However NIWA research shows indigenous forest sequesters far more carbon than previously thought and for a longer time.
- MSRT has been very reliant on project manager Andrew Macalister who has a vast knowledge of wilding control. Siobain is being given more project management work and is taking on more of the technical role.
- Now that the Trust has started doing animal pest control, it is often asked about control of goats and deer which are a significant threat to Sounds biodiversity. Andrew is in the early stages of talking with DoC and landowners about a pilot aerial shooting project using thermal imagery.

## SUMMARY

MSRT has created a well-managed project which has gained strong credibility with Sounds landholders, local businesses, DoC, MDC, sponsors and supporters.

There is a well-oiled process of applying for funds, operational planning, carrying out successful wilding control and reporting results. More than \$2.5 million has been raised in 12 years from national agencies as well as local individuals and businesses.

MSRT has set the standard for indigenous ecosystem restoration in the Marlborough Sounds, which is likely to continue as landowners adopt its values and methods to control wildings on their own properties.

## SUGGESTIONS

- The website has not been updated since 2018 and there are no recent newsletters posted. Regularly load new material such as newsletters and management reports. If sponsorship agreements allow, extend publicity to the Bluebridge ferry.
- There has apparently been ongoing denial from the Marlborough forest industry that growers have any responsibility for wilding pines. Attitudes may be changing. Some companies are active in contributing labour and resources for control on Public Conservation Land, e.g. in the Richmond Ranges and Red Hills. Reach out to forestry owners through a field day or start by talking to fellow entrants in these Environment Awards including M&R Forest Land Management Ltd and PF Olsen.
- Prioritise connections with Rangitane and Ngāti Kuia as well as Te Atiawa. Ask if their whanau would like to be involved, and how that might happen.
- Recent Government funding was intended to boost local employment. Follow through with attempts to identify people in the Sounds community who may have lost work as a result of Covid-19 and involve them in the project. They may have useful skills other than on-the-ground wilding and pest control.
- Work to raise the profile of the Trust's patron.

- Firm up a hand-over plan for management of areas that have had wildings removed. Clarify whose responsibility it is to keep on top of maintenance and find ways to build a sense of landowner responsibility.
- Ensure there is continuity in the Trust's key operational roles. Siobain is being trained for succession – identify others to help build and ensure ongoing capability.