



**Wilding Pine
Network**

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WILDING PINE INFORMATION PACK



INTRODUCTION

This information pack provides a brief overview of the National Wilding Conifer Control Programme alongside its intended purpose and aims. It is not intended to cover every aspect of the programme, but to help outline the key details and information.

On July 1st, 2016, The National Wilding Conifer Control Programme (NWCCP) commenced working with regional councils to distribute central funding to support and increase wilding control operations throughout various regions of New Zealand. This funding from Central Government was a crucial addition to control efforts after extensive lobbying by key stakeholders.

The negative impacts of wilding pines infestation and spread are well documented. Prior to establishment of the national programme, vulnerable landscapes and ecosystems and productive land were being infested at a rate of approximately 90,000 hectares per year nationally, while potential control costs were increasing exponentially every year.



The infestations and rapid spread were (and still are) beyond individual landowners' ability to maintain, let alone eradicate by themselves. Landowner participation in the National Wilding Conifer Control Programme is entirely voluntary. It is interesting to note, as an example within Canterbury, out of hundreds of landowners approached since 2016, only two have declined to participate. The Central Government assists greatly but there is still a cost for landowners; a 20% contribution is required from landowners to help fund any ground control work. This is usually exceeded across heavily infested areas and reflects the rural community's recognition and ownership of the problem.

The success of the programme to date is due in part to Central Government funding and coordination, but also the passionate participation of all stakeholders (irrespective of land tenure), all working toward a common goal which makes this legacy-scale project so worthwhile. However, several community trusts also undertake significant amounts of work with funding achieved from other sources.

The various associated groups undertaking wilding control work (some with funding through the National Wilding Conifer Control Programme and many through their own and community resources) have proven where there is a will there is a way, particularly if the right components such as funding and access to the necessary resources are all in alignment.



WHO IS RESPONSIBLE FOR MANAGEMENT?

The programme's governance group involves four Crown agencies, as well as representatives from community trusts and regional councils involved in wilding conifer control. The Programme Governance members are:

- Biosecurity New Zealand, part of MPI (lead agency)
- Department of Conservation
- Land Information New Zealand
- New Zealand Defence Force
- Federated Farmers
- Forest Owners Association
- Wilding Pine Network
- Local Government (currently represented by Environment Canterbury)



Other partners of the programme include a wide range of individuals and groups that are working together to manage wilding conifer infestations, these include:

- Runanga representing local Iwi and Hapū
- Community Trusts
- Private land-owners and managers, like farmers and lifestyle block owners
- Companies like Landcorp , corporate plantation growers, and others.

The Programme's control operations are managed regionally, through funding agreements with Regional Councils. They are responsible for managing local pests according to their regional pest management plans, and work with the National Wilding Conifer Control Programme and local contractors to plan and carry out wilding control work within their region.

Controlling wilding pines – Environment Canterbury

Tasman District Council

Pest plant control – Horizons Regional Council

Waikato Regional Council

Wilding pines – Marlborough District Council

Bay of Plenty Regional Council

Northland Regional Council

Otago Regional Council

Environment Southland



PROGRAMME PROCESS & INTENT

Broadly speaking, the intent of the national programme partners is to protect our most vulnerable landscapes, ecosystems and production values by clearing the landscape of wilding conifers, controlling seed sources and educating landowners about the right tree for the right place.

The first removal phase of any infestation is referred to as the **'Initial'** stage of control; this is the most expensive phase. Subsequent sweeps are referred to as **'Maintenance'**. These 'sweeps' must occur within three years of the **'Initial'** to address emerging trees from the seed bank in the soil, before they reach coning age. This is crucial to break the regrowth cycle.

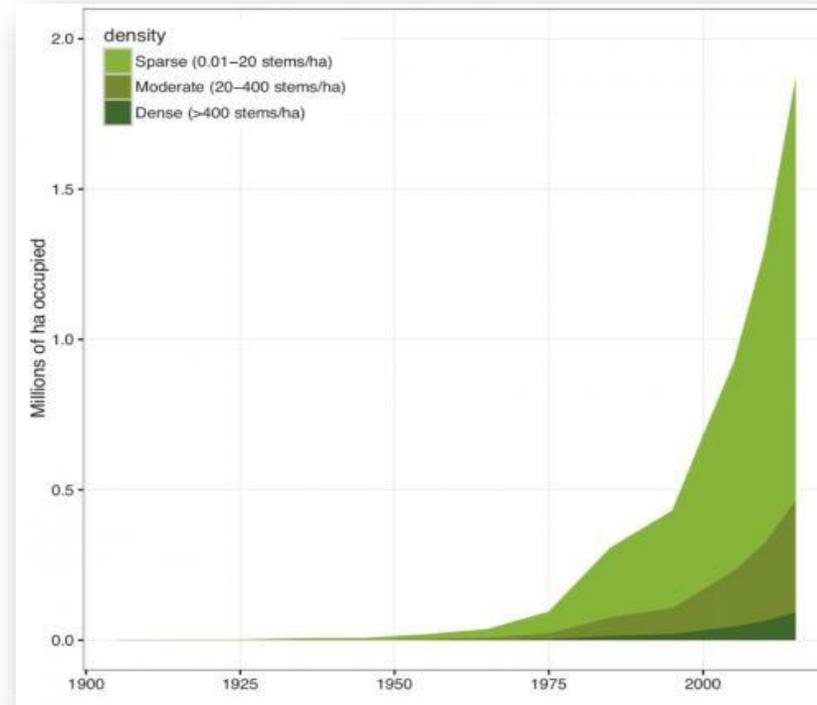
The first maintenance sweep is often almost as expensive as the initial, albeit with smaller trees. Subsequent maintenance sweeps should reduce in cost as the regrowth cycle is broken. Provided the seed source is controlled, most areas will require one initial and up to three maintenance sweeps, three years apart. By this time, the seed bank should be exhausted with emerging trees at a minimum.



FUNDING

In 2016, the government pledged \$16 million over 3 years for the first phase of a national control programme. This was used to tackle wilding conifers in the highest priority areas. Budget 2019 allocated a further \$21m for 2 years. Budget 2020 allocated further Crown funding of \$100 million over 4 years to expand the National Wilding Conifer Control Programme.

Every region submits annual operational plans and costings each year in March, with their individual budgets confirmed in late May/June for work to commence on July 1st. This is a very competitive process with demand exceeding funding.



Wilding occupation since 1900



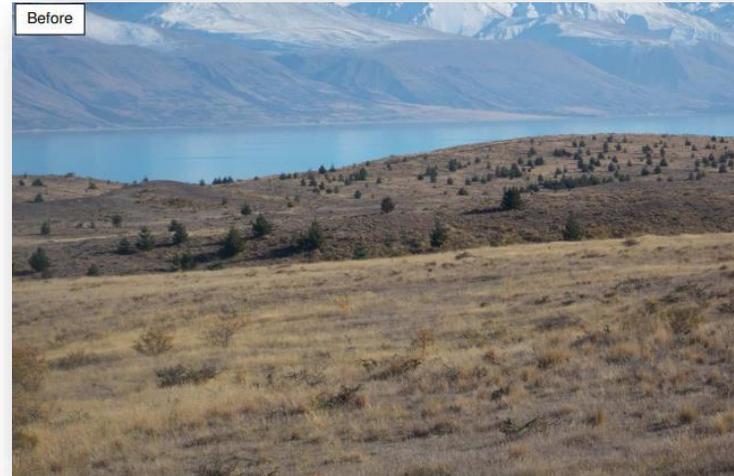
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Between 2016 and 2022 around 70% (2.2 million hectares) of the total known infestation area nationally (more than 2.5 million hectares) has now received at least one round of control work.

The programme has been shown to give outstanding return on investment.

Independent economic analysis estimates an overall benefit-cost ratio of between 20:1 and 34:1 for every dollar invested in controlling wilding infestations and preventing the spread.





ONGOING MANAGEMENT

While the results achieved to date are highly encouraging, it is anticipated that Crown funding for the national programme will gradually reduce and eventually cease; accordingly, a crucial consideration of the national programme partners is the transition of maintenance on land currently receiving government-funded control work to landowners.

Transition can be considered when the programme has effectively controlled all visible wilding conifers and any subsequent emerging trees from the seed bank are at a minimum. At this point, the ongoing maintenance requirements should be within the landowners' ability/budgets to control themselves without Central Government funding. Every management unit differs in scale, topography, infestation level and funding requirements.





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There has been major progress over many of the areas under the National Wilding Conifer Control Programme and it is apparent that large areas within a significant number of management units, particularly within the Canterbury high country, could be considered for transition back to landowner responsibility after one initial and two maintenance sweeps (each site being controlled needs this 3-sweep programme to ensure that all trees have been successfully removed).



Many of these areas had relatively sparse (but remote) infestations; although it is important to note that all previously sparse infestations were the beginning of the wilding forests of the future. The presence of any remaining infestations may mean that while most of a management unit can be “handed back” to landowners, there will be moderate/dense infestations remaining and in need of further financial support. At the very least, in most cases this will focus financial requirements and work efforts in relatively small areas.



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EMPLOYMENT AND OTHER BENEFITS

Since commencement of the National Wilding Conifer Control Programme, various contracted crews alongside volunteer teams have been engaged throughout the year carrying out operations. These people are directly engaged to control wilding conifers from the following services:

- Ground control contractor crews
- Helicopter companies
- Mechanical control/harvesting
- Arboricultural companies

These contractors and business owners comprise the core of the programme and they in turn employ support staff and make significant investments in training to ensure best practice is always followed.





The benefits of this programme, however, do not stop there; wilding conifer control is hard physical work, carried out in some remote areas and can be hazardous. Consequently, the various regions require their contractors to be highly trained.

Most of the work is rural, and contractors book accommodation close to where they are working. They visit restaurants, bars, supermarkets and retail outlets. These are in small rural communities, all of which are struggling in the current economic/COVID climate. The actual value of this aspect is difficult to measure, but nevertheless significant.



- Driving (on-road and off-road)
- First Aid
- Chainsaw qualifications
- Herbicide handling
- Helicopter safety
- Health and Safety courses



BIODIVERSITY

Wilding conifer spread has a negative impact on cultural ecosystem services (biodiversity, recreation, aesthetic, and heritage values) as wilding conifers grow and outcompete natives for resources and quickly overtake natural landscapes.

*“Wilding conifers are clearly harmful to some of our native ecosystems. For tussock grasslands, herb fields and shrublands, the wildings’ ability to invade, outgrow and smother is of major concern. Many of the existing native species are simply lost from sites where this happens. Several wilding conifer species, particularly lodgepole pine (*Pinus contorta*), are able to grow at higher elevations than native trees, especially in eastern areas of the South Island where mountain beech forms the native treeline. This poses a threat to New Zealand’s diverse alpine ecosystems.*

Douglas fir can even grow up through native forests. Given a chance, these weeds can form dense, monospecific stands, leading to considerable biodiversity losses”

- Parliamentary Commissioner for the Environment, 2021.



CLIMATE CHANGE

Control of wilding conifers is a key component of increasing New Zealand's climate resilience. While all trees help to balance out carbon dioxide emissions by pulling carbon from the atmosphere, the sequestration value of wilding infestations is far outweighed by their negative impacts:

- Wilding conifers reduce water flow in sensitive catchments, along with aquatic biodiversity values. They also impact on beneficial land uses, including well managed plantation and carbon forests and farmland.
- Allowing the spread of wilding conifer infestations is incompatible with the Government's strategies and tools for protecting and conserving natural taonga and biodiversity, and would undermine the recreational, ecological, or economic value of other nearby land.
- As tree weeds, wilding conifer infestations are ineligible to be registered as post-1989 forests in the New Zealand emissions trading scheme, in line with international settings.





PRODUCTIVE LAND

Invasion of wilding conifers reduces the productive potential of land. Spread occurs most readily on ungrazed land with low vegetation density, and is least likely to occur in dense vegetation, or where intensive grazing is practiced (Ledgard, 2001; Buckley et al., 2005).



Many of the wilding conifers encroaching on productive land and natural reserves are the result of legacy plantations; whereby areas were historically planted with the best of intentions for shelter belts, erosion control, but lacked the understanding at the time of their spread into neighbouring land.

In the absence of control, moderately or infrequently grazed grassland and pasture will be lost to wilding conifer invasion, and economic potential along with it, while increasing risks such as fire.



SUMMARY

Every participating region in New Zealand is extremely appreciative of the financial support provided by Central Government to date. While the National Wilding Conifer Control Programme is classed as a “long term” project, the positive outcomes for ecosystems, landscapes and production values **are immediate** where control has been carried out. Vulnerable landscapes and indigenous biodiversity cease to be impeded by a pest that can form a monoculture within years, not decades. Water yield and production values improve immediately.

Large areas have the ability to be transitioned back to landowner responsibility after one to two more maintenance sweeps, with only the areas of currently dense or moderate infestation requiring more input.

All of this is entirely achievable with appropriate and timely financial support – however, the likelihood of the problem re-emerging in the future is one that cannot afford to be overlooked unless continued re-investment is made. The will to participate and contribute, from all parties, is already in place.