Otago Regional Wilding Conifer Strategy 2023 - 2029

Background

Otago's iconic landscapes are vulnerable to the invasion of wilding conifers. In 2016, a Ministry for Primary Industries (MPI)-funded report estimated that 8.4% - or 295,830 ha – of Otago was affected by wilding conifer infestation. In 2016, around 70% of Otago was mapped[1] as being 'very highly vulnerable' to wilding conifer infestation. Particularly at risk are Otago's high country and tussock grasslands.

Adverse effects resulting from wilding conifer infestation include:

- Reducing water yield, particularly in low rainfall catchments.
- Out-competing and subsequently replacing native vegetation.
- Increasing the risk of wildfire.
- Reducing the economic productivity of land; and
- Impacting on social and cultural values, e.g., landscape, recreational.

A cost benefit analysis commissioned by MPI in 2018[2] quantified that doing nothing, or doing little, will generate a large negative economic impact for the country: a loss of $4.6 billion. Without national intervention wilding pines will then spread to 7.5 million ha of vulnerable land. This could take as little as 15 to 30 years. It can be as little as $5–$10 per hectare to treat sparse infestations, however, control costs escalate over time and treating dense infestations will typically cost $2,000 per hectare to aerial boom spray (2018 figures). Consequently, it will never be cheaper to address the problem than it is now.

The growing problem has been recognised for some years, and as a result, the Whakatipu Wilding Conifer Control Group, Central Otago Wilding Control Group, and the Upper Clutha Wilding Conifer Control Group established themselves to control wilding conifers. A National Wilding Conifer Control Programme has also been developed and funded by government agencies, landowners, and local communities to address infestations.

Control efforts to date have been very successful but will require an ongoing effort for many years to come in follow-up work, and in areas where control is yet to be undertaken.

Objective of the Strategy

The Otago Regional Pest Management Plan 2019-2029 (RPMP) contains an objective and rules relating to the management of wilding conifers and stipulates that measures drawn from the suite of activities listed under requirement to act, collaboration, council inspection, service delivery, advocacy and education may be used by ORC to achieve the plan's objective.

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[1] Wildlands Contract Report No. 3754a prepared for MPI. Methods for the Prioritisation of Wilding Conifer sites across New Zealand. February 2016.

[2] Wyatt, S., 2018, Benefits and Costs of the Wilding Pine Management Programme Phase 2, Sapere.

In 2022, the ORC began to develop a Regional Wilding Conifer Strategy to work towards achieving the objective in the RPMP (see below).

> *Objective 6.3.4 Over the duration of the Plan (2019-2029), progressively contain and reduce the geographic extent of wilding conifers within the Otago Region to minimise adverse effects on economic well-being and the environment.*

This strategy has been designed to occupy the space between the New Zealand Wilding Conifer Management Strategy 2015-2030 and those of the operating groups. It identifies issues and gaps related to wilding conifer control, how these can be addressed, and what the intended outcomes are for each activity.

The logic underpinning the Strategy is that if all the outcomes in the regional strategy were achieved within the timeframe (i.e., by 2029) then this would be notable progress in the effective management of wilding conifers and would help with ensuring that the vision and objectives of the New Zealand Wilding Conifer Management Strategy 2015-2030 and those of the operating groups are also realised.

Matters not included in the Regional Strategy

This is a wilding conifer strategy, not a planted conifer strategy. It is not intended to address the deliberate afforestation of land with permanent or production conifer forests, rather is it intended to address wilding conifers that may result from these forests or other seed sources.

There are also several other matters that have not been included in the regional strategy:

- ***National Environmental Standards for Plantation Forestry 2017 (NES-PF):*** The NES provides controls to manage the spread of wilding conifers from plantation forests that were established since the NES-PF was introduced (regulation 11) and provides controls for when harvested forest land is replanted with a different species (regulation 79). There are no controls, however, on wilding conifers emanating from plantation forests that were established before 2017, and there is no requirement to assess the wilding risk when replanting with the same species. Furthermore, the controls in the NES-PF can only require the forest owner to manage wildings on their own land (as it cannot confer a right to access another's property) and focusses this control work on wetlands and significant natural areas (SNAs).

  In short, the wilding risk controls in the NES-PF do not apply to forests established pre-2017 unless they are harvested and replanted with a different species; do not require the forest owner to address wilding conifers on their land if it is not in a wetland or SNA; and do not require the forest owner to address wilding conifers that establish on someone else's land.

  The NES-PF is currently under review by MPI. The regional strategy does not, therefore, recommend that ORC seeks to fill these gaps at this stage. Instead, it recommends that an assessment is undertaken to determine whether, if these controls (along with RPMP rules, Territorial Authority rules

and resource conditions) were implemented effectively, there would still be a need for any further controls.

- ***Permanent carbon forests:*** The NES-PF does not currently apply to permanent carbon forests but the current review of the NES-PF includes consideration of how new permanent carbon forests will be managed in the future. Other than recommending better alignment between the RPMP, District Plans and NES-PF rules for ease of implementation, the regional strategy does not address this matter any further.

- ***How control work is undertaken:*** Given that this is a high-level strategy, there is little detail about how the actual control work is undertaken or how the canopy cover is transitioned. These matters are inherent within the regional strategy and this level of detail is not required at this stage. The regional strategy is instead focussed on the necessary foundations to ensure that effective control work can continue and expand, such as ensuring there is adequate resourcing, greater participation, greater urgency, and less resistance.

- ***Auditing NES-PF consent applications and wilding risk calculations:*** Operational matters have not been included as these are inherent within the effective operation of ORC and/or contractors. These include:

    - Suitably qualified and experienced staff and contractors to assess wilding risk calculations and consent applications.
    - Consistent compliance auditing and monitoring; and
    - Ongoing professional learning and development for relevant staff.

Improving Understanding and Prioritising Work

Situation	Inputs	Activities & Participants	Outputs	Outcomes / Impacts
1. Monitoring of wilding spread is inconsistent and incomplete. Current monitoring/ surveillance is ad hoc. Inconsistent data collection makes it difficult to compare data sets over time. MPI's proposed remote surveillance programme may still be several years away.	ORC time and resources. Input is required from Ministry of Primary Industries (MPI), Land Information New Zealand (LINZ), Department of Conservation (DOC), Whakatipu Wilding Conifer Control Group (WCG), Central Otago Wilding Conifer Control Group (CWG), Upper Clutha Wilding Control Group (UCWCG), Territorial Authorities (TA) and private landowners regarding monitoring currently undertaken and in development.	ORC leads a body of work alongside others to review monitoring currently undertaken and in development, and identify opportunities to consolidate, improve, and add value to this. The focus of this work will be how to complement and/or add value to Wilding Conifers Information System and monitoring currently undertaken by others rather than creating duplication. This will include investigating how to incorporate records of control work and field data for future planning purposes.	Informed by the review, ORC works with others to ensure that a robust and detailed regional surveillance programme is developed and implemented that is accurate, repeatable, and comparable. This must add value to, or at least be, compatible with, WCIS and monitoring undertaken by others.	Reliable monitoring data is used to prioritise control work, report on the impact of control work undertaken, and provide a better understanding of subregional nuances.
2. The location of seed sources and the spread of wilding conifers across Otago is not fully understood Whilst there is data regarding the location of seed sources and the spread of wilding conifers across Wakatipu and Central Otago, the problem isn't yet fully understood in other parts of the region. This includes the location of shelter belts that may pose a wilding spread risk. If the problem is underestimated and risks are not fully understood, opportunities to make early gains are lost.	ORC staff time and resources. Data from the various existing monitoring programmes is required.	ORC works with others to create and/or update spatial records for wilding conifer spread across Otago. ORC undertakes mapping to fill in spatial knowledge gaps identified across the region to augment/update WCIS. ORC works with others to ensure information about seed sources (including shelterbelts) and their relative risk is available in a centralised database (e.g., WCIS).	Spatial datasets of wilding conifer infestation areas and seed sources are produced. These include an indication of relative current and future risk based on the 4S's as well as environmental, social, cultural, and economic factors.	Control work across the region is prioritised based on the 4 S's (species, status of control, spread factor, seed sources) as well as environmental, social, cultural, and economic factors for longer-term gains. There is an increase in the amount of work being undertaken to control the spread of conifers at an early stage (pre-coning). Current and future risks are better understood and recorded in WCIS or another central database (this outcome also links to that in SS4).

Awareness and Education

Situation	Inputs	Activities & Participants	Outputs	Outcomes / Impacts
3. Public awareness and acceptance could be better The level of understanding regarding the urgency of the problem and social license for subsequent control work is greater in Wakatipu and Central Otago than other parts of Otago. A lack of understanding of the issue and the urgency can lead to resistance, delays, and a reluctance to undertake control work. Seed sources are often located in populated urban areas, and/or as shelter belts, amenity plantings, etc. Addressing these seed sources will require social, cultural, and political matters to be addressed and worked through. There is a tension between controlling wilding conifers and saving/planting trees for carbon sequestration.	ORC staff time and resources. Collaboration with MPI, LINZ, DOC, WCG, CWG, UCWCG, FENZ, TAs, Catchment Groups, and other key stakeholders such as the Wilding Pine Network is required.	ORC works with WCG, CWG, UCWCG, MPI and the Wilding Pine Network (WPN) to co-design and implement a communication and engagement plan for targeted education across the region to inform communities of the risks posed by wilding spread (e.g., fire risk, biodiversity loss, water yield, soil composition, wildfire risk, loss of productive land, changing landscapes, loss of historic and recreational areas etc). ORC receives advice from MPI and others regarding the narrative for why it's necessary to control wildings when others are planting trees for carbon sequestration. ORC includes information about rules, roles and responsibilities in its communications packages.	A communication and engagement plan for targeted education across the region. Including: - key message 'right tree, right place, right reason' rather than 'all conifers are a problem' (which they are not). - tailored for different communities, industry sector groups and specific corporate entities to ensure they are pertinent e.g., 'how does it affect me?' etc. - promotion of success stories - visual tools to show likely/actual changes over time where appropriate (bearing in mind that landscapes forested with conifers are attractive to some people). This incorporates and complements – rather than replaces – existing communications and engagement work undertaken by WCG, CWG, UCWCG, MPI and WPN.	Communities across Otago are well informed and aware about the risk of wilding conifer spread, the urgency of the issue in their area, and the benefits of early intervention. Landowners are aware of their responsibilities regarding wilding conifer control, the need to keep areas clear and manage their land accordingly. Individuals and communities are undertaking a greater amount of wilding control, motivated in part by successes reported elsewhere. New non-production plantings (e.g., plantings in subdivisions, shelterbelts, amenity trees etc.) are non-spreading species. Communities across Otago have a better understanding of the difference between problematic pest trees and trees that are providing commercial benefits, carbon sequestration, biodiversity benefits, and other environmental benefits. Control work on public land continues at a higher rate due to less community resistance.

Funding

Situation	Inputs	Activities & Participants	Outputs	Outcomes / Impacts
4. There is no regional cost benefit analysis The very high benefit to cost ratio of early control is often not taken advantage of. A better understanding of the priorities and risk (refer to SS1 and 2) can help secure and target funding.	ORC staff time and resources. Release of the recently updated cost benefit analysis report from MPI. Input from stakeholders may also be necessary.	ORC draws upon the recently updated cost benefit analysis report from MPI and other sources to undertake a regional cost benefit analysis.	A regional cost benefit analysis to support applications to MPI (and others) for funding.	More funding is secured to undertake early intervention control work. An increase in the amount of work to control the spread of conifers at an early stage. Decisions about wilding conifer control are informed by regional cost benefit analysis. (These outcomes link to SS2 prioritising locations based on better knowledge).
5. Funding levels are insufficient to address the problem. NWCCP funding is insufficient to maintain the current control programme and achieve the outcomes of the NZWCMS. Strong advocacy will be required to secure national funding beyond 2024.	ORC staff time and resources. Collaboration with LINZ, DOC, WCG, CWG, UCWCG, TAs and other key stakeholders such as the Wilding Pine Network is critical.	ORC collaborates with regional stakeholders and other regional councils to lobby central government to continue funding work through the NWCCP beyond 2024. ORC prepares a business case to inform preparation of the next LTP.	Meetings and/or communications held with central government to discuss future funding. A business case to support ORC LTP decisions on funding of wilding conifer control in Otago.	There is a continuation of, and increase in, the amount of NWCCP-funded wilding control work undertaken in Otago. There is longer-term certainty that there is a programme and continuity of delivery structures. An appropriate level of funding from ORC, supported by a business case.
6. There has been little publicly funded control work outside of Wakatipu/Central Otago There is a need to undertake control in other management units where NWCCP-funded control work has not yet occurred.	ORC staff time and resources. Uptake by a community group, and support from ORC, TAs, LINZ and DOC is required. Guidance from WCG, UCWCG and CWG will be beneficial.	ORC undertakes a body of work to determine how to best support the establishment of community-led wilding conifer control groups outside of Wakatipu/Central Otago, and how to ensure that these are funded in a way that doesn't divert committed funds from existing programme areas.	Mechanisms to facilitate the establishment of community-led wilding conifer control groups outside of Wakatipu/Central Otago.	Community-led wilding conifer control groups are operating across the region, particularly in Wanaka.

Regulation

Situation	Inputs	Activities & Participants	Outputs	Outcomes / Impacts
7. It's not known whether the existing regulatory controls are adequate. There has been no assessment of whether the current regulatory controls (Regional Pest Management Plan (RPMP), Land and Water Regional Plan (LWRP), NES for Plantation Forestry (NES-PF), district plans) are fit for purpose. There has been little testing of these rules in the context of wilding conifers.	ORC staff time and resources. Funding for external contactors (e.g., legal advice). TAs help ORC staff to understand what rules/policies they have, how they apply and where (links to SS9).	ORC review of RPMP and LWRP rules to ensure they are fit for purpose and align with the NES-PF and MPI Wilding Conifer RPMP Guidance. Using monitoring information (see SS1) and following further stakeholder consultation, ORC assesses the effectiveness of the current regulatory regime to identify any required changes or additional controls at a regional level, and/or any requirement to advocate for further controls at a central government level and/or TA level.	An assessment of the effectiveness of RPMP and LWRP rules relating to wilding conifers and the alignment of these rules with national and district level regulations, including recommendations for improvement if necessary.	ORC's regulation is clear, enforceable, and fit for purpose to achieve the RPMP objectives. There is better alignment between district, regional and national-level regulation, where needed, making compliance and enforcement clearer and more streamlined.
8. Compliance with the RPMP rules is ad hoc. Compliance issues are reported or noted opportunistically (not targeted or coordinated as such). Therefore, potential breaches may be going undetected. This links with SS7 – a better understanding of the rules is needed.	ORC staff time and resources. Input from WCG, UCWCG and CWG (and others) regarding where publicly funded work has occurred and where known non-compliances are occurring is required.	ORC design and implement a formal compliance monitoring programme focusing on areas where publicly funded control operations have been undertaken.	Effective mechanisms for reporting non-compliance are developed and non-compliances are followed up with in a timely manner. Monitoring for compliance is also included as a component of the monitoring programme in SS1.	Cleared areas are kept clear.
9. Each of the region's TAs have different rules, policies and consent conditions relating to conifer control. In addition, compliance with these rules, policies and consent conditions is inconsistent.	ORC staff time and resources. Input is required from TAs regarding what rules/policies/consent conditions are in place and where they apply.	TAs provide a clearer picture of what relevant consent conditions apply and where.	Overview of TA rules and conditions relating to conifer control (spreadsheet or table) which outline opportunities for improvement.	ORC and TAs have a better understanding of controls provided at a district level and can work together for greater controls/better monitoring of existing controls at the TA level, where beneficial.