

Biosecurity Operational Plan 2021-2022



Implementing the Otago Regional Pest Management
Plan 2019-2029

Executive Summary

Under the Biosecurity Act (1993), the Otago Regional Council (ORC) is the regional management agency responsible for biosecurity and pest control. To achieve this function, the ORC has developed the *Otago Regional Pest Management Plan 2019-2029* (RPMP). This Biosecurity Operational Plan annualises the objectives of the RPMP for the 2021-2022 financial year. For context, this Operational Plan should be read in conjunction with the ORC Biosecurity Strategy Implementation Plan that focuses on wider pest management issues, collaborations and partnerships.

ORC achieves practicable biosecurity outcomes through setting rules that require land occupiers to control pests to established standards; undertaking inspections (to ensure compliance with rules), monitoring (to determine the effectiveness of control) and surveillance (identifying new issues and trends). The ORC takes a lead role in advocacy and education around pest threats, pathways of pest spread and the provision of advice.

ORC focus its biosecurity work on occupiers and landowners who are ultimately responsible for pest management. This is supported by working closely with other organisations involved in implementing and funding biosecurity across the region, including the Ministry for Primary Industries (MPI), Land Information New Zealand (LINZ), the Department of Conservation (DoC), Kāi Tahu, neighbouring local government councils and community groups.

Under the RPMP, pest management is classified into five programmes.

- 1. Exclusion pest programme:** ORC will prevent six high threat pest plants from establishing in the region throughout the region.
- 2. Eradication pest programme:** ORC aims to eliminate spiny broom and eradicate Bennett's wallaby and rooks from the region.
- 3. Progressive containment pest programme:** ORC aims to contain and reduce the extent of 11 pest plants (or groups of plants) across the region.
- 4. Sustained control pest programme:** ORC will enforce rules to ensure control of rabbits and five widespread pest plants to reduce their impacts and spread.
- 5. Site-led pest programmes:** ORC will support community and agency control as outlined in their management plans.

Priority Pests

In terms of the 2021-2022 work programme, one priority programme and four priority pests have been identified as a focus for the Biosecurity Operational Plan:

- ▶ Exclusion pest programme
- ▶ Feral rabbits
- ▶ Bennett's wallaby
- ▶ Wilding conifers
- ▶ Lagarosiphon

The exclusion programme and four priority pests are of concern to our communities and have adverse effects (current or future) on environmental, economic and social grounds, and require a significant investment in resources to either control or prevent their spread.

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1. Introduction

1.1 Background

Under the Biosecurity Act 1993, the Otago Regional Council (ORC) developed the *Regional Pest Management Plan 2019-2029* (**'the RPMP'**). The RPMP is a statutory document that lists specific pests which have the greatest adverse effect on the environment and economy within Otago. In order to control, or eliminate, such adverse effects, the RPMP establishes rules that are legally enforceable. This provides a framework for the effective management or eradication of declared pests in the Otago region over the next decade. The RPMP sits alongside the non-statutory ORC Biosecurity Strategy which focuses on the wider biosecurity issues including the collaboration with stakeholders to manage pests.

The key purpose of the RPMP is to outline how the identified pests will be managed to reduce or remove their threat to the environmental (e.g. ecosystem or species), economic (e.g. farming/forestry) and cultural/social (e.g. Māori and human health) values of the region. The RPMP allows ORC to use relevant advice, service delivery, regulatory enforcement and funding provisions as provided by the Biosecurity Act.

The RPMP identifies 30 plants (or groups of plants) and 11 animals (or groups of animals) as pests. The responsibility for most of the pest control work lies with occupiers and landowners. Being the designated Management Agency under the Biosecurity Act, ORC enforces the RPMP to ensure that occupiers are aware of and meet their obligations for pest management on their properties by adhering to RPMP rules.

ORC responsibilities focus on advocacy, inspections, monitoring and surveillance to ensure compliance to the RPMP rules. As required, ORC has the provision to legally enforce these rules. In some specific cases, ORC may coordinate and undertake direct control of some pests.

1.2 Operational plan purpose, duration and linkages

As required under the Biosecurity Act, ORC is expected to prepare an annual Operational Plan that implements the RPMP. The Operational Plan is reported on each year and submitted to the Minister. The Operational Plan is a publicly available document.

This document (*Biosecurity Operational Plan 2021-2022*) outlines the nature, scope and priority activities that ORC intends to undertake for pest management across the Otago region for the financial year 1 July 2021 through to 30 June 2022.

The key purpose of this Operational Plan is to identify what will be delivered during the 2021-2022 financial year in terms of pest prioritisation and the associated actions to implement the RPMP. For context, it is essential that this Operational Plan is read in conjunction with the RPMP, as well as the supporting context of the Biosecurity Strategy and its related implementation plan.

2. Summary of Regional Pest Management Plan

2.1 Pest management programmes

The RPMP is implemented through five pest management programmes¹, as summarised below. The pests listed under each programme are given in Table 1.

1. **Exclusion:** The objective is to search for specific pests that are present in New Zealand yet not established in Otago and to prevent their establishment. Under Section 100V of the Biosecurity Act, there is provision to start emergency control of new pest incursions that are not listed in the RPMP.
2. **Eradication:** The objective is to eradicate identified pests from the areas where they occur in the region. Eradication involves reducing the infestation density of the pest to zero.
3. **Progressive Containment:** The objective is to contain and reduce the geographic spread of the listed pests to specific areas. Containment usually arises where the pest is at high densities in part(s) of the Otago region, but in low densities or limited range in other parts. While eradication is not feasible, it is realistic to prevent the pest from spreading to other 'clear' parts of the region.
4. **Sustained Control:** The objective is for ongoing control of the listed pests to reduce their impacts and spread to other properties. The focus is to manage the densities of the pests and ensure they do not reach a level where they cause significant environmental impact. Sustained control is a strategy for pests of low to moderate densities but with a wide geographical spread that they cannot feasibly be eradicated.
5. **Site-led:** The intermediate objective is to exclude, or eradicate, from places (or sites); or to contain, reduce or control within that place or site.

2.2 Methods and resources – how pest control will be carried out

ORC achieves practicable pest management outcomes through the following methods and provision of resources. Table 1 outlines which pest and programmes are related to each method.

1. **Advocacy and education:** ORC will provide education, advice and information to landowners and/or occupiers and the public about the impacts of pests and pathways (vectors) of pest spread, and appropriate methods of control. ORC will ensure land occupiers are informed of their responsibilities under the RPMP. This activity also includes contributing to research and cost-sharing with other agencies and developing/promoting 'good practice' around control methods aimed at pest management contractors and occupiers who are required to act.
2. **Inspections, monitoring and surveillance:** Regular property inspections ensure that RPMP rules are being adhered to. The focus is to achieve voluntary compliance before enforcement action is initiated. Monitoring is carried out to determine effectiveness of control. Surveillance activities identify new pest issues and ensure that current problem pests and sites are not getting worse.
3. **Collaboration with others:** ORC works with landowner/occupier groups and central and local government agencies to develop consistent approaches for the effective management of pests.

¹ As prescribed by the National Policy Direction for Pest Management 2015.

4. **Requirement to Act (regulation):** RPMP rules are the ‘backbone’ of pest management. These rules require identified pests to be controlled to specified standards or levels. Failure to comply with RPMP rules can lead to enforcement action by ORC.
5. **Service delivery:** In some specific cases where special expertise is required or coordinated control gives benefits to a specific area or the region as a whole, direct control (service delivery) may be undertaken by ORC. Service delivery includes providing appropriate control tools (e.g. traps, chemicals) and releasing biological control agents.

Table 1: Summary – Programmes, Pests and Principle Measures

Pest	Advocacy and education	Inspections, monitoring & surveillance	Collaboration with others	Requirement to Act	Service delivery
Exclusion					
African feather grass	✓	✓	✓		
Chilean needle grass	✓	✓	✓		
Egeria	✓	✓	✓		
False tamarisk	✓	✓	✓		
Hornwort	✓	✓	✓		
Moth plant	✓	✓	✓		
Eradication					
Bennett’s wallaby	✓	✓	✓	✓	✓ ¹
Rooks	✓	✓	✓	✓	✓ ¹
Spiny broom	✓	✓	✓	✓	✓ ¹
Progressive containment					
African love grass	✓	✓	✓	✓	✓ ¹
Nassella tussock	✓	✓	✓	✓	
Old man’s beard	✓	✓	✓	✓	
Spartina	✓	✓	✓	✓	✓ ²
Six grouped plants	✓	✓	✓	✓	✓ ²
Wilding conifers	✓	✓	✓	✓	✓ ³
Sustained control					
Gorse and broom	✓	✓	✓	✓	
Nodding thistle & ragwort	✓	✓	✓	✓	
Russell lupin	✓	✓	✓	✓	
Feral rabbits	✓	✓	✓	✓	
Site-Led					
Contextual to Site	For site-led programmes, pest infestations are contextual to the geographical areas. Hence, the pests of concern will be identified in each site-led annual project plan. The site-led project plans are formally part of this Operational Plan.				
[1] ORC will undertake direct control where agreed with occupiers.					
[2] ORC will facilitate direct control, only where access, spraying or safety issues require expert involvement.					
[3] ORC will facilitate or undertake direct control as required, and alongside established groups.					

2.3 Progress of the RPMP

The RPMP is a 10-year plan. The biosecurity space is dynamic, with changes occurring within the 10 years due to environmental and ecological conditions, and as a result of the actions undertaken to implement the RPMP and Biosecurity Strategy. In addition, significant increase in funding has been afforded to biosecurity activities under the 2021-31 Long Term Plan. This has reshaped the capacity to deliver programmes.

Due to this, there are specific changes to the Operational Plan from the previous year. The following points highlight areas of new work that are anticipated this year:

- ▶ Stepped up engagement and co-ordination with occupiers over feral rabbits, especially in peri-urban areas and lifestyle blocks.
- ▶ Increased compliance activities for rural properties regarding rabbits.
- ▶ Increased wilding conifer engagement, inspections and monitoring.
- ▶ Increasing wallaby surveillance and compliance, and liaison with neighbouring councils.
- ▶ Improved alignment of practice to improve the performance of activities in real time.
- ▶ Development of a meaningful partnership with Kāi Tahu in order to connect regularly on biosecurity issues, to identify areas of importance to Kāi Tahu and actively promote collaborative action.
- ▶ Prioritisation of effort to better maximise biodiversity gains.
- ▶ Greater spread of activities across the region based on freshwater management units (FMUs).
- ▶ Streamlining operating procedures that allow for better use of Biosecurity Act powers.

2.4 Regional Prioritisation of Pest Control

The continuing lessons of pest management across the region have identified one programme and four pests that will be prioritised in the 2021-2022 delivery period. These pests, and the reasons for prioritisation, are identified in Table 2. Prioritisation of these pests provides a heightened focus, which is supported through greater resourcing and management oversight.

Table 2: List of priority pests for 2021-2022

Pest	Programme	Reason to Prioritise
Exclusion Pests	Exclusion	Exclusion of pests not established in Otago is a critical responsibility of the RPMP. To ensure new pests are excluded there is a need to develop and implement a proactive surveillance approach. This will identify pathways of potential spread (e.g. product movement).
Feral rabbits	Sustained Control	Feral rabbits, arguably, generate the most significant ecosystem damage to the environment and production systems within Otago. Feral rabbits terraform a landscape. The Ministry of Primary Industries estimate production-related losses exceed \$50 million

Pest	Programme	Reason to Prioritise
		per year, on top of control expenses of \$25 million. Other losses include destruction of habitat for indigenous flora and fauna, changes to landscape value and impacts on social activities.
Bennett's wallaby	Eradication	Wallabies are an ever-present threat due to their high numbers in neighbouring South Canterbury. As wallabies present a significant environmental to the ecosystem and a production risk to the economy, it is imperative that they are prevented from establishing a foothold in Otago.
Wilding conifers	Progressive containment	Wilding conifers interfere with ecosystems where they can shade out native species. This has consequential effects on the wider environment, especially water availability. From a social perspective, they interrupt Otago's iconic landscape and present a fire risk to farmlands and communities. If not controlled, they will significantly change the landscape, hydrological cycle and conservation values, especially high country and tussock grasslands.
Lagarosiphon	Site-led programme	Lagarosiphon is an aquatic plant pest that threatens the aquatic environment. It is fast growing; displacing and shading out aquatic native plants. Thick areas of lagarosiphon disturb water flows and cause localised deoxygenation of water, changing the aquatic ecosystem for animals. Lagarosiphon blocks water bodies, resulting in negative visual effects, reduces recreational activities and chokes water supply intakes. If lagarosiphon is left uncontrolled, large beds can form and wash ashore, leaving an unpleasant heap to decay.

2.5 Operational Plan Reporting

Pest management activities are undertaken through a mix of council staff, other agencies, contractors and volunteers. As the management agency lead, ORC is responsible for reporting on activities and progress during the year. ORC audits information received from various sources and reports that information and progress against the targets set out in this Operational Plan through an RPMP Annual Report, as required by Section 100B of the Biosecurity Act 1993. ORC also reports to Council implementation performance, including the instances staff have used the powers in the RPMP to enforce rules or act on default.

For some pests within the RPMP, management is led by an external agency. For example, LINZ is the lead agency for lagarosiphon management, and national pest programmes that cover wilding conifer and wallabies. In these instances, reporting to funders on progress is a joint responsibility.

It is a requirement that the implementation of this Operational Plan is to be reported on each month with respect to the following details:

- ▶ A brief narrative on the actions undertaken for each deliverable
- ▶ The KPIs are measured at the end of each month (cumulatively, year-to-date)
- ▶ Where targets have not been met a satisfactory explanation is provided

Reporting will be aggregated quarterly and annually for Council reports and Ministerial submission. Quarterly and annual reports are to include recommendation of changes for future management of identified, and/or potential, pests.

A strong focus on reporting for this Operational Plan will be the progressive adoption of GIS systems to allow for spatial analysis and trend analysis of changes in pest densities. To this extent, all data collected will be timestamped and georeferenced to a point, polyline or polygon.

3. Pest Management Activities to Enact the RPMP

3.1 Exclusion pest programme

Regional Priority

The exclusion pest programme is to prevent the establishment of a specified pest that is present in New Zealand but not yet in the Otago region.

Objective

To prevent the establishment of non-established pests in the Otago region, with a specific focus on:

- ▶ African feather grass
- ▶ Chilean needle grass
- ▶ Egeria
- ▶ False tamarisk
- ▶ Hornwort (Ceratophyllum)
- ▶ Moth plant

Deliverable	KPI	Target
Appropriate actions taken in the event of a confirmed discovery with response implemented as soon as practical	% of risk assessments completed in 48 hours	100%
	% of control/response plan defined within 5 working days	100%
Prompt response to all reports and sightings	% of reported sightings investigated within 24 hours of ORC becoming aware of a report	100%
Undertake regular liaison and work closely with neighbouring regional councils	Regular operational level meetings focused on exclusion strategies held with biosecurity counterparts in Canterbury and Southland	4

3.2 Eradication pest programmes

The eradication programme is restricted to three contrasting pest species in the region. They belong in this programme as their infestation levels are considered low enough for eradication to be feasible in the long-term. The pests include one marsupial (Bennett's wallaby), a bird (rook) and a plant (spiny broom). Implementation of management programmes for each pest is described separately in the following subsections due to the different approaches taken.

3.2.1 Bennett's wallaby

Regional Priority

Objectives

- ▶ Reduce known wallaby populations to zero density in an attempt to eradicate them and prevent their further expansion in the region
- ▶ Prevent further spread of wallaby into North Otago from Canterbury
- ▶ Inform the Otago community on the wallaby threat and encourage vigilance and reporting to council

Deliverable	KPI	Target
Prompt response to all reports and confirmed sightings of wallabies	% of sightings, notifications and complaints responded to within 3 working days	100%
Inspect known hotspots where previous control work has been undertaken using trained indicator dogs, and thermal imagery and artificial intelligence cameras	# of known hotspots and areas of previous control inspected	20
Follow-up and monitor past locations of wallaby sightings	% of property owners where wallabies have been located in past year are spoken to at least twice a year and provide an update on the current status	100%
Ensure MPI contract outputs are met	% of outputs as listed in MPI contracts are met	90%
Collaborate and coordinate with ECan on Wallaby Management	Implement joint Memorandum of Understanding	Met
Partnerships maintained with the interregional team (comprising ORC, Ecan and MPI)	# of national wallaby meetings attended as per MPI contact	All
	# of regional coordination group of wallaby management attended as per Terms of Reference	4

3.2.2 Rooks

Objective

Reduce rook populations to zero density and maintain this status until eradication is attained.

Deliverable	KPI	Target
Prompt response to all reports and sightings	% of reports, notifications and complaints responded to no later than 3 working days	100%
Monitor known rookeries and known hotspots where previous control work has been undertaken	# of known rookeries inspected annually	40

3.2.3 Spiny broom

Objective

Reduce spiny broom populations to zero density, focusing on the Waihola, Chain Hills and Brighton areas, and maintain this status until eradication is attained.

Deliverable	KPI	Target
Prompt response to all reports and sightings	% of reports, notifications and complaints responded to within 5 working days	100%
Engage specialists to assess likely high-risk sites at least annually	Report of high-risk sites submitted	1
Undertake twice-yearly inspection programme	# of inspections undertake at known infestations sites	10
	Report of current level of infestation prepared identifying any implications	Met

3.3 Progressive containment pest programmes

The 11 pest plants (or groupings of plants) in this programme are reasonably well established in the region. While eradication is unlikely, densities can be progressively reduced over the duration of the RPMP. Operational programmes for these plants are divided into six sub-sections below:

- ▶ Wilding conifers – occupier control, with several conifer specific rules
- ▶ African love grass – managed by ORC due to identification difficulty
- ▶ Nassella tussock – occupier control, distinct inspection regimes
- ▶ Old man’s beard – occupier control, large budget and several distinctive KPIs
- ▶ Spartina – occupier control, an aquatic/estuarine species
- ▶ Six grouped plants – all managed by occupiers to the same requirements

3.3.1 Wilding conifers

Regional Priority

Wilding conifers are any introduced conifer tree, particularly contorta, Corsican, Scots, mountain and dwarf pine, and European larch, as outlined in the RPMP. Wildings are established through natural means and do not relate to plantation forests and windbreaks/shelterbelts under 1 ha that existed before March 2019.

Objective

Contain wilding conifers within the region (in accordance with national strategy and programme aims), reduce infestation densities where practicable and prevent their spread to new locations.

Deliverable	KPI	Target
Collaborate with regional partnerships through attending the Wakatipu Wilding Conifer Control Group (WWCCG) and Central Otago Wilding Conifer Control Group (COWCCG)	# of meetings attended	All
Demonstrate regional leadership through leading the Regional Coordination Group for Wilding Conifers management	# of meetings held	4
Collaborate with national partnerships through attending national-focused Operations Advisory Group (OAG)	# of meetings attended	All
Ensure MPI contract outputs are met	% of outputs as listed in MPI contracts are met	90%
Undertake proactive monitoring by remote sensing ² in Queenstown Lakes and Central Otago districts	# of hours of remote sensing analysis of Wilding conifers carried out	50
Advocate to landowners including identification guides for species and increased liaison with forestry companies	# of face-to-face visits to properties on wilding conifer actions	>200

² Remote sensing can include aerial inspections, aerial photography and satellite data.

3.3.2 African love grass

Objective

Contain African love grass to its 20 known sites (around Earnsclough, Clyde, Omakau, Queensbury and Pisa Moorings) within the region, reduce its densities at these sites and prevent spread to new sites.

Deliverable	KPI	Target
Engage contractors to undertake direct control operations as required to 'best practice' standards	# of direct control operations carried out	20
Establish monitoring sites to compare change in densities over RPMP period	# of suitable monitoring sites identified	5
	# of density calculations at monitoring sites (at least two per year per site).	10
Bi-annual inspections at known sites undertaken	# of known sites inspected at least once a year	40

3.3.3 Nassella tussock

Objective

Contain nassella tussock to known areas within the region – around Roxburgh/Alexandra (Galloway and Knobby Range areas – approx. 32,000 ha), lower Cardrona Valley (Deep Creek to Riverbank Road – approx. 4,500 ha) and the lower Waitaki Valley (Georgetown and Tussocky/Ridge Roads – approx. 4,100 ha), reduce its densities at these sites and prevent spread to new sites.

Deliverable	KPI	Target
Undertake at least bi-annual inspections at known sites between March and October (prior to seeding)	% of know sites inspected twice a year	90%
	List of known sites maintained and is up to date	1
Establish monitoring sites to compare change in densities over RPMP period	# of suitable monitoring sites identified	5
	# of density calculations at monitoring sites (at least two per year per site)	10
Undertake proactive monitoring by remote sensing outside of traditional and known areas, focusing on likely high-risk habitats currently free of Nassella tussock	# of hours of remote sensing analysis of Nassella tussock carried out	50
	# of hectares covered in remote sensing and ground operations	40,000
	Report on findings from remote sensing monitoring completed	1

3.3.4 Old man's beard

Objective

Contain and reduce old man's beard to known areas within the region to prevent spread to new locations.

Deliverable	KPI	Target
Identify properties to be inspected for Old Man's Beard as prioritised by an appropriate biodiversity assessment	A list of properties identified and prioritised for Old Man's Beard inspections	1
Undertake inspections for Old Man's Beard as prioritised by biodiversity assessment	# of properties inspected for Old Man's Beard	500
	% of properties inspected for Old Man's Beard within high biodiversity areas	50%
Re-inspect all non-compliant properties to ensure as prioritised by biodiversity mapping	% of non-compliant properties that have been re-inspected within set timeframes	80%
Establish monitoring sites to compare change in densities over RPMP period	# of suitable monitoring sites identified	10
	# of density calculations at monitoring sites (at least two per year per site).	20

3.3.5 Spartina

Objective

Contain spartina to known areas within the region, such as in and around Waikouaiti Estuary, Karitane Estuary and in Te Hikapupu/Pleasant River Estuary, reduce its densities at the above sites and prevent spread to new locations.

Deliverable	KPI	Target
Regularly inspect known sites of Spartina	# of bi-annual inspections at current sites	6
Collaborate with DOC, LINZ and KiwiRail at Karitane and Te Hikapupu/Pleasant River sites	# of meetings held with DOC, LINZ and KiwiRail	1
Establish monitoring sites to compare change in densities over RPMP period	# of suitable monitoring sites identified	2
	# of density calculations at monitoring sites (at least two per year per site).	4
Undertake surveillance at historic sites (Harwood [Otago Peninsula], Blueskin Bay, Taieri Mouth and Catlins Lake)	# of new infestations found at historic sites	0
Facilitate service delivery of direct control using contractors	# of contractor days providing direct control	20

3.3.6 Six containment pest plants

Six pest plants have been grouped for ease of reporting, although they all occur in different parts of the region, they are all required to be managed by occupiers to the same RPMP requirements, being elimination wherever they occur on properties.

- ▶ Bomarea Dunedin City, Otago Peninsula, Waldronville and West Harbour – 650 active sites/properties
- ▶ Boneseed Dunedin (Portsmouth Drive, Forbury, Port Chalmers and Aramoana); Taieri Mouth and Moeraki
- ▶ Bur daisy Georgetown, Waitaki Valley
- ▶ Cape Ivy Dunedin City and Otago Peninsula – 65 sites/properties
- ▶ Perennial nettle South Otago (Balclutha, Lawrence, Clydevale – along the Clutha / Mata Au River)
- ▶ White-edged nightshade One site at Hampden – historical sites on Otago Peninsula islands

Objective

Contain the six pest plants listed above within the region for the duration of the RPMP, reduce their densities at known sites and prevent spread to new sites.

Deliverable	KPI	Target
Undertake inspections of the six plants at all known sites	# of inspections at current and historic sites completed	250
Collaborate with ECan over bur daisy control either side of the regional boundary	# of meetings with ECan	2

3.4 Sustained control pest programmes

The six pests in this category are well-established legacy pests in most regions of New Zealand. Although eradication isn't viable, opportunities exist to prevent spread from infested areas to clear areas and to reduce 'externality impacts' on adjoining occupiers' values where those adjoining occupiers are motivated to undertake control.

- ▶ Feral rabbits
- ▶ Gorse and broom
- ▶ Nodding thistle and ragwort
- ▶ Russell lupin

3.4.1 Feral rabbits

Regional Priority

Objective

Ensure the continuing control of feral rabbits to under 3 on the Modified MacLean's Scale, and manage their spread to reduce adverse effects and impacts on the economic wellbeing of occupiers.

Deliverable	KPI	Target
Identify and prioritise properties to be inspected for rabbits based on their proneness to rabbit infestation	A list of properties generated based on rabbit proneness	Met
Undertake inspections of properties focusing on rabbit prone areas	# of property inspections carried out	>250
	% of properties inspected that are on high or extreme proneness to rabbits	>60%
	% of non-compliant properties that have been re-inspected within set timeframes	80%
Undertake night count monitoring along pre-set transects/routes and blood sampling at identified locations	# of night count monitoring locations completed	14
	Report on rabbit blood sampling for RHD virus completed	Met
	Results disseminated to relevant parties to ensure feral rabbits are appropriately controlled	Met
Undertake analysis of rabbit prevalence to assess the trends of rabbit densities and spatial movement	Report to ORC on rabbit analysis completed by staff	Met
Prompt response to all rabbit complaints	% of complaints responded to within 5 working days	100%
	% of complaints that are inspected within 15 working days	100%
Facilitate and support community-led responses to reduce rabbit populations in areas of high need ³ across Otago	Landowner-led rabbit control groups established and supported	>8

³ Such as Lake Hayes, Gibbston Valley, Hidden Hills, Albert Town, Pisa Moorings, Queensbury, Moeraki and Otago Peninsula.

3.4.2 Gorse and broom

Objective

Ensure continuing control of gorse and broom that prevents land free of these pests from becoming infested (primarily in Central Otago and Queenstown Lakes districts) and reduces adverse effects on the economic (and environmental) wellbeing of occupiers regionwide.

Deliverable	KPI	Target
Undertake inspections in three management blocks (Central Otago, Earnsclough and Lindis)	# of properties inspected and assessed for compliance	90 ⁴
Undertake proactive monitoring by remote sensing in the Queenstown Lakes management block (November/December) ⁵	# of hours of remote sensing analysis of Gorse and Broom	50
	Report on findings from remote sensing completed and non-compliance is followed up.	Met
Advocate with occupiers and landowners on new control rules that come into effect in 2024 regarding extensions to the current gorse and broom free areas ⁶	# of meetings with occupiers and landowners	4

Note: Remote sensing of management blocks rotate through the four blocks over four years (one block each year)

3.4.3 Nodding thistle and ragwort

Objective

Ensure continuing boundary control of nodding thistle and ragwort to reduce adverse effects on the economic wellbeing of rural land occupiers regionwide.

Deliverable	KPI	Target
Undertake inspections as initiated by ORC receiving a valid complaint from adjoining occupiers who are undertaking effective control work	% of inspections undertaken following a complaint responded to within 10 working days	100%

⁴ Earnsclough – 25 properties; Central Otago – 50 properties; Lindis – 15 properties.

⁵ In conjunction with the wilding conifer remote sensing work.

⁶ For example, the gorse and broom free extension in the Cardrona Valley covers approx. 500 ha of land, where currently the 10m boundary clearance rule (on complaint) applies, until October 2024.

3.4.4 Russell lupin

Objective

Instigate boundary controls of Russell lupin (clearance distances differ depending on the infestation situations) to prevent spread (e.g. the planting and subsequent seeding) of wild lupin plants, and to reduce adverse effects in rural zoned land.

Deliverable	KPI	Target
Undertake inspections based on risk and available resources	# of inspections of high-risk areas where Russell lupin is planted as production crop to ensure there is no spread (e.g. tussock country and braided riverbeds).	20
Collaborate with landowners in high-risk areas for Russell lupins on management and control	# of lupin management plans approved within 25 working days of being received from occupiers	20
Establish relationships with commercial suppliers and advise them about the rules and obligations	# of commercial suppliers of Russell lupins that have an on-going relationship	10
Establish monitoring sites to compare change in densities over RPMP period	# of suitable monitoring sites identified	2
	# of density calculations at monitoring sites (at least two per year per site)	4

3.5 Site-led pest programmes

The RPMP site-led programme is about protecting the environmental values at several named sites from the ravages of multiple pests. As a result, the management programme focuses on specific threats to each site and provides for the control of many pests, often those that are not managed elsewhere in the region (e.g. possums, rats).

The RPMP includes four site-led programmes. For the Operational Plan, three of them – Otago Peninsula, West Harbour-Mount Cargill and Quarantine and Goat islands (all within Dunedin City) – are grouped, as the same six pest plant species and 15 pest animal species are managed generically across all three places. The fourth site-led programme concerns the LINZ-led management of lagarosiphon (oxygen weed), where different controls are implemented in different lakes. New site-led programmes will be considered via the RPMP in the future.

3.5.1 Otago Peninsula, West Harbour – Mount Cargill and Quarantine and Goat Islands

Objective

Support community groups and other agencies to protect the ecological integrity of the Otago Peninsula (9,000 ha), West Harbour-Mt Cargill (12,500 ha) and Quarantine and Goat islands, as defined in the project plan.

Deliverable	KPI	Target
Confirm current and identify new site-led programmes	# of site-led programmes confirmed by 30 th September 2021	Met
Support is provided where needed for site-led programmes	A plan for all site-led programmes is created	All
Celebrate the success of site-led programmes	# of success stories provided by site-led programmes	10

3.5.2 Lagarosiphon

Regional Priority

Objective

To support LINZ in controlling and eradicating lagarosiphon in the region's rivers and lakes:

- ▶ Prevent its establishment in Lake Wakatipu and other regional water bodies
- ▶ Progressively reduce its spread in Lake Wanaka and the Kawarau River
- ▶ Undertake sustained control in Lake Dunstan

Deliverable	KPI	Target
Survey priority water bodies ⁷ twice a year that are not the responsibility of LINZ	# of surveys at nine priority 'non-LINZ' managed sites	18
	% of sites where lagarosiphon was not found	100%
Ensure monitoring is carried out at Wanaka, Dunstan and Wakatipu/Kawarau sites	# of days identified sites monitored	10
	% of monitoring events where lagarosiphon was not found in Lake Wakatipu	100%
Monitor water users before leaving lakes Dunstan, Wanaka or Roxburgh, and the Clutha/Mata-Au and Kawarau rivers for lagarosiphon fragments from	# of interactions in the 'Check, clean, dry' programme	650

⁷ Moke Lake; Manorburn, Poolburn, Butchers, Conroys, Falls, Fraser Dams, Albert Town stormwater detention ponds and Bullock Creek sites.

Deliverable	KPI	Target
boats and equipment and safely dispose of any found		
Joint planning and meetings with LINZ, DOC and other stakeholders	# of meetings attended with LINZ, DOC and other stakeholders.	4
Attend annually with three groups – Wakatipu/Kawarau River Group, and Lake Dunstan and Wanaka community groups	# of meetings attended with the identified community groups	6
Actively understand and report on lagarosiphon trends and advocate strongly for solutions to be implemented	Report on findings completed	Met
	Results disseminated to relevant parties to ensure lagarosiphon is controlled	Met

4. RPMP Administration

4.1 Compliance and Enforcement Actions

As the RPMP is a rules-based approach to pest management, there is need to ensure actions are taken to ensure compliance. The specific approach to compliance and enforcement is covered in the ORC Biosecurity Compliance and Enforcement Policy. To achieve this, the following actions will be delivered.

Deliverables	KPI	Target
Effective administration of compliance and enforcement		
Provide occupiers and landowners with the declared pest status following an inspection	% of occupier/landowner advised of inspection status within four weeks of the inspection	100%
RPMP rules enforced as required and formal notices issued as necessary	% of 'Notices of Direction' (NOD) assessed as compliant at the expiry of the stated NOD period	100%
Undertake default action where required by the BSA to 'best practice' standards and in accordance with animal welfare legislation	% of properties deemed to be compliant following default actions	100%
	% of properties paying default action charges	100%

4.2 Biosecurity Operational Plan Administration

For the administration of this operational plan, two key deliverables are listed.

Deliverables	KPI	Target
Revise the Biosecurity Operational Plan		
Review and, if needed, revise the Biosecurity Operational Plan annually as required by the BSA	Biosecurity Operational Plan for 2022-2023 approved by Council	Approved
Responsiveness to Pest Inquires		
Prompt response to all pest inquiries ⁸ as listed <ul style="list-style-type: none"> • Wallabies and rooks: 3 days • Rabbits: 5 days • Plants: 10 days (unless varied for specific plants in Section 3) 	% of pest inquiries responded to expected timeframes	95%

4.3 Biosecurity Communication Plan

The communication of biosecurity information is a key approach to achieving the RPMP. For this year, the focus relates to the following deliverables.

Deliverables	KPI	Target
Prepare a Biosecurity Communication Plan		
Prepare a Biosecurity Communication Plan	A Biosecurity Communication Plan is implemented by 30 th September 2021	Met
Biosecurity Advocacy and Education		
Provide pest specific advocacy and education, focusing on: <ul style="list-style-type: none"> • Regional Priority Pests, including peri-urban rabbits • Eradication Pests • Gorse and Broom • Nassella Tussock • Old Man's Beard 	An advocacy and education programme developed by 1 October 2021 and implemented from 1 December 2021	Met
	# of community events attended (e.g. field days, A&P shows)	20

⁸ Inquiries are defined as either 'reports, notifications and complaints'

5. Glossary

For this operational plan the following definitions are provided. A fuller glossary is given in the RPMP.

Adjacent: means a property that is next to, or adjoining, another property.

Compliant: refers to when a rule in the RPMP is adhered to.

Default Action: means work undertaken by the management agency to carry out pest control when a 'Notice of Direction' or 'Compliance Order' has not been complied with by an occupier, under Section 128 of the BSA. The management agency can then recover costs and expenses reasonably incurred under Section 129 of the BSA.

Landowner: has the same meaning as occupier in the Biosecurity Act 1993.

Management agency: has the same meaning as in the Biosecurity Act 1993: "means the body specified as the management agency in a pest management plan or a pathway management plan". For the purposes of the RPMP and Operational Plan, Otago Regional Council is the management agency (MA) for pests to be controlled in the Otago region.

Modified McLean Scale: this scale assesses rabbit population levels – refer to Appendix 2.

Notice of Direction (NOD): means the actions required and notice issued pursuant to Section 122 of the Biosecurity Act 1993. An NOD can require a person to take action to address pest, plant or animal problems or to comply with a rule in an RPMP.

Occupier: see landowner.

Non-compliance⁹: refers to any breach in an RPMP rule. Non-compliance is enforceable under the provisions of the BSA. For clarification, a breach of an RPMP rule does not have to be widespread across a property and may relate to a single location (or a defined area) within a property.

Operational plan: means a plan prepared by the MA under Section 100B of the Act.

Pest: has the same meaning as in the Biosecurity Act 1993: "an organism specified as a pest in a pest management plan".

Surveillance: means survey work undertaken to determine the status of pest species.

Water body: means fresh water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.

Wilding conifer: wilding conifers are any introduced conifer tree, including (but not limited to) any of the species listed in Table 3 of the RPMP, established by natural means, unless it is located within a forest plantation, and does not create any greater risk of wilding conifer spread to adjacent or nearby land than the forest plantation that it is a part of. For the purposes of this definition, a forest plantation is an area of 1 hectare or more of predominantly planted trees. This also excludes existing planted conifers of less than 1 ha, such as windbreaks and shelterbelts, at March 2019.

Zero level/zero density: where the pest is destroyed from an area and is not detectable, but biosecurity managers accept that the pest may continue to appear in the area afterwards due to plant seed sources or animal migration from an unmanaged area.

⁹ Note: this definition is not listed in the RPMP rather it is defined in the ORC Biosecurity Compliance and Enforcement Policy.