CANTERBURY REGIONAL COUNCIL
Kaunihera Taiao ki Waitaha

Operational Plan 2023-2024

IMPLEMENTING THE CANTERBURY REGIONAL PEST MANAGEMENT PLAN (2018-2038)

Prepared under the Biosecurity Act 1993

This Report on the Operational Plan 2020-21 compares annual targets (expected to be achieved) with annual outputs (levels of service achieved) for each pest programme which contribute to meeting the objectives in the Canterbury Regional Pest Management Plan 2018-2038 (CRPMP). Budgets are reviewed through the annual plan process, and then summarised in the Report on the Annual Plan.

The Report on the Operational Plan was prepared in accordance with the requirements Section 100B (2)(a) of the Biosecurity Act 1993.

Photo: Broom © Ina Siebert

Contents

Regional Pest Management Plan 2018-2038

Regional councils have a mandate under Part 2 Section 12B of the Biosecurity Act 1993 (the Act) to provide regional leadership in activities that prevent, reduce, or eliminate adverse effects from harmful organisms that are present in their region. Canterbury Regional Council (Environment Canterbury) Kaunihera Taiao ki Waitaha therefore has this leadership role in the Canterbury region.

The Canterbury Regional Pest Management Plan 2018-2038 (CRPMP) is the result of an extensive public consultation process that determines what plants and animals should be controlled to benefit the region. Those included significantly threaten our, economy, Māori Tikanga, health, recreation, and/or natural ecosystems (biodiversity). The CRPMP must be reviewed at least once (every 10 years), and this work was last completed during 2017/18.

The CRPMP 2018-2038 became operative on 1 July 2018 and includes plant and animal pests managed under the five key programmes in accordance with the National Policy Direction for Pest Management 2015. The programmes are Exclusion, Eradication, Progressive Containment, Sustained Control and Site Led.

The CRPMP utilises different management programmes depending on the most likely outcome for managing a pest, considering the pest's occurrence in the region (from very limited to widespread).

The five programmes and their intermediate outcomes for each programme are described below.

1. **Exclusion Programme**: to prevent the establishment of a pest which is present in New Zealand but not yet established in the region.
2. **Eradication Programme**: to reduce the incidence or density of a pest to zero levels in an area in the short to medium term.
3. **Progressive Containment Programme**: to contain or reduce the geographic distribution of a pest over time.
4. **Sustained Control Programme**: to ensure pests are being controlled, to reduce their impact on values and spread to other properties.
5. **Site-led Programme**: to exclude, eradicate, reduce, or contain pests to protect primarily natural biodiversity at specified sites.

For further information contact Advisory Services on 0800 324 636 and ask for a copy of our free pamphlets or brochures.

Stay up to date with biosecurity matters by subscribing to the Biosecurity Bulletin, the CRPMP Quick Guide or visit our website for a full copy of the CRPMP and information on pest management and farm biosecurity.

Operational Plan for the CRPMP 2018-2038

The Act also requires the preparation of an operational plan, and annual reporting on the Operational Plan, in accordance with section 100B. These are Environment Canterbury documents which provide technical information for the implementation of programmes, including monitoring and surveillance projects, which support the outcomes of CRPMP.

This Operational Plan has been prepared in accordance with section 100B of the Biosecurity Act 1993. It identifies and outlines the nature and scope of activities Environment Canterbury intends to undertake in the implementation of the CRPMP. Progress will be monitored through the yet-to-be prepared CRPMP Operational Plan Report (2023-2024). This will enable key stakeholders and the community to access the performance of Environment Canterbury as the Management Agency for the CRPMP.

The Operational Plan identifies:

- **Responsibility for pest control**
- **The activities or principal measures used to implement the difference between CRPMP and RPMP**
- **The levels of service provided (targets and outputs); and**
- **The planned pest expenditure for 2023-2024.**

Land occupiers are principally responsible for the control of pests on the land they occupy. Environment Canterbury controls pests when they are new to the region, when they are of very limited occurrence, or when control methods require specialised technical expertise (e.g., biological control), and when coordinated control gives benefits to a specific area or the region. Environment Canterbury regulates when pest control is mandatory and monitors the operational efficiency and effectiveness of control programmes.

Other biosecurity and pest management activities outside the scope of the CRPMP include examples such as: Pathway Management and Surveillance; implementing the National Wilding Conifer and Wallaby programmes within the region; education; engagement and awareness; supporting several feral animal control groups; Chatham Islands RPMP delivery; National Biological Control Collective participation; research and development of biosecurity tools; contributes to freshwater and marine surveillance and control; implements the Ministry for Primary Industries Check Clean Dry programme in the region; promotes on-farm biosecurity, alignment with the National Capability Network, Incursion response activities, and collaborates with National Biosecurity Special Interest groups.

Environment Canterbury funds principal measures or activities through General rates and Targeted rates across the Canterbury region.

Principle measures

The principal measures in the CRPMP correspond with activities in the annual plan as summarised below.

Advocacy and education

We will provide general purpose education, advice, awareness, and publicity activities to landowners and/or occupiers and the public about managing pests and ensure that land occupiers are informed of their responsibilities under the CRPMP.

This includes regional engagement through various means including websites, media, and public events to farm visits, field days and one-on-one interactions.

Service Delivery

We carry out pest control operations for eradication and progressive containment pests, and when control methods require special expertise (e.g., biological control), when coordinated control gives benefits to a specific area or the region, and where costs are recovered from land occupiers. Control is reported on a pest-by-pest basis.

Operations costs shown in this report are only the costs of specific pest control undertaken by us. Individual land occupiers also incur other expenditure to control pests to comply with the CRPMP.

Council inspections

We regulate by inspecting properties to ensure that rules in the CRPMP are met. The inspection programme is reviewed annually to ensure delivery of CRPMP will occur over time as are biosecurity procedures to ensure effectiveness and efficiency.

Requirement to Act

Land occupiers or other persons may be required to act where CRPMP rules dictate pests are to be controlled and/or management plans are to be prepared and submitted and/or the presence of pests is to be reported. Failing to comply with CRPMP rules can lead to enforcement action by us.

Enforcement

As a last resort to gain compliance, we may enforce rules in the Plan under the provisions of the Biosecurity Act 1993 (BA). The enforcement process may include:

I. issue of notice of direction (Section 122 BA)

II. issue of a notice of intention to act on default (Section 128 BA)

III. recovery of costs of enforcement (Section 129 BA)

If a land occupier does not comply with a notice of direction, we may act on the land occupier's behalf (act on default) and is able to recover from the land occupier for all costs incurred in enforcement.

Cost recovery

Rate payers pay for the costs of inspections and control of pests to ensure the region's economic wellbeing and natural biodiversity is protected. Ongoing costs associated with recalcitrant land occupiers not abiding by directions given by persons authorised under Section 129 BA 1993, will be recovered from individual land occupiers. This also acts as a deterrent for those land occupiers who continually fail to comply with rules in the CRPMP and particularly those who exacerbate problems which affect other land occupiers.

Environment Canterbury funds principal measures or activities through a mix of general and targeted rates across the Canterbury region and user pays.

Table 1 – Programmes, Pests and Principal measures

Programme and pests **Exclusion**	**Advice/Education**	**Requirement to act**	**Service delivery**	**Monitoring**	**Surveillance**
Australian sedge	✓		✓	✓	✓
Broomsedge	✓		✓	✓	✓
Hornwort	✓		✓	✓	✓
Kangaroo grass	✓		✓	✓	✓
Koi carp	✓		✓	✓	✓
Noogoora bur	✓		✓	✓	✓
Nutgrass	✓		✓	✓	✓
Oxylobium	✓		✓	✓	✓
Palm grass	✓		✓	✓	✓
Spiny broom	✓		✓	✓	✓
Woolly nightshade	✓		✓	✓	✓

Programme and pests **Eradication**	**Advice/Education**	**Requirement to act**	**Service delivery**	**Monitoring**	**Surveillance**
Egeria	✓		✓	✓	✓
Entire marshwort	✓		✓	✓	✓
Knotweed (Asiatic and Giant)	✓		✓	✓	✓
Moth plant	✓		✓	✓	✓
Phragmites	✓		✓	✓	✓
Rook	✓		✓	✓	✓
Yellow bristle grass	✓		✓	✓	✓
Yellow water lily	✓		✓	✓	✓

Programme and pests **Progressive Containment**	**Advice/Education**	**Requirement to act**	**Service delivery**	**Monitoring**	**Surveillance**
African feather grass	✓		✓	✓	✓
African love grass	✓		✓	✓	✓
Baccharis	✓		✓	✓	✓
Puna grass	✓		✓	✓	✓
Wilding conifers	✓	✓	✓	✓	✓

Programme and pests **Sustained Control**	**Advice/Education**	**Requirement to act**	**Service delivery**	**Monitoring**	**Surveillance**
Bell heather	✓		✓	✓	✓
Bennett's wallaby	✓	✓		✓	✓
Boneseed	✓		✓	✓	✓
Broom (various)	✓	✓		✓	✓
Bur daisy	✓		✓	✓	✓
Chilean needle grass	✓	✓		✓	✓
Coltsfoot	✓	✓	✓	✓	✓
Darwin's barberry	✓			✓	✓
Feral rabbit	✓	✓		✓	✓
Gorse	✓	✓		✓	✓
Nassella tussock	✓	✓		✓	✓
Old man's beard	✓	✓	✓	✓	✓
Purple loosestrife	✓		✓	✓	✓
Saffron thistle	✓		✓	✓	✓
Wild Russell lupin	✓	✓		✓	✓

Programme and pests **Site led**	**Advice/Education**	**Requirement to act**	**Service delivery**	**Monitoring**	**Surveillance**
Banana passionfruit	✓		✓	✓	✓
Broom	✓		✓		
Cathedral bells	✓		✓	✓	✓
Feral goats	✓	✓		✓	
Gorse	✓		✓	✓	
Lagarosiphon	✓		✓	✓	
Old man's beard	✓		✓	✓	
Spartina	✓		✓	✓	✓
White-edged nightshade	✓		✓	✓	✓
Wild Thyme	✓		✓	✓	✓

Activities

Regulatory inspections and service delivery are undertaken on a pest-by-pest basis. The level of service provided by us for each of the principal measures/activities is described in more detail below. Advice and education, enforcement, and monitoring are generic activities/ or principal measures, covering a wide range of pests.

A mix of targeted rates, collected from rural land occupiers, general rates collected from all ratepayers in the Canterbury region, and user charges funds the cost of delivering the principal measures. The budget and actual expenditure by activity/ principal measures and pest management programmes is summarised in Table 2.

Monitoring the effects of the CRPMP

Population Trend Monitoring

Environment Canterbury monitors the population trends of animal and plant pest populations to determine regional trends. Long-term trends, based on repeated monitoring at established sites allows the effectiveness and efficiency of the CRPMP to be assessed.

Population monitoring measures long term trends in the density and extent of widespread pests. Population age structure monitoring for feral rabbits measures the relative proportion of males to females and adults to juveniles. Trend and population monitoring provide information on the effectiveness of Environment Canterbury implementing the RPMP, landholder pest plant and animal control operations and progress towards achieving CRPMP objectives. Monitoring is reported on within each pest programme.

Operational monitoring measures short term trends (1-5 years) in pest population structure, density and extent following pest control operations. This provides information on the efficiency of pest control programmes. Monitoring is required as part of pest control operations.

Outcome monitoring measures long term changes in the state of the environment through time. It provides an indication of whether a regional benefit has been gained. As other external factors such as climate change and land management practices all influence the state of the environment, changes due to pest control can only be detected over long periods (10-20 years) on a regional scale.

Regulation

The CRPMP contains rules for some pests that land occupiers are required to conduct work to meet. Biosecurity officers undertake a targeted compliance property inspection programme to ensure that these obligations are met.

Compliance Inspections

Environment Canterbury carries out a targeted property pest inspection programme and responds to complaints to ensure that land occupier-initiated pest control meets the requirements of the RPMP. Environment Canterbury also carries out inspections of nurseries, retail outlets and commercial distributors of plants to prevent the sale, propagation and distribution of all pests listed in the RPMP. For efficiency, inspections are also carried out for Unwanted Organisms outside the provisions of the RPMP on behalf of and funded by the Ministry for Primary Industries.

At the completion of an inspection written advice is given or sent to the land occupier detailing the results of an inspection, including pest presence or absence, whether compliance with RPMP rules has been found, and if non-compliant what the land occupier must do to comply within a given time period.

Education and advice is given in person at the time of an inspection to ensure all relevant information is communicated to a land occupier to reduce the need for extra inspections and any potential enforcement issues in future.

Notice of Direction

A Notice of Direction is served on land occupiers when properties are non-compliant with CRPMP rules directing any outstanding work to be undertaken by a specified date. This can be at either a first or second inspection depending on the pest programme. Where land occupiers fail to comply with the Notice then Environment Canterbury may undertake Action on Default on the land occupier's behalf and cost.

Compliance Orders

Compliance orders directing land occupiers are issued where there has been a history of significant breaches of RPMP rules over past years. Breaching a compliance order may result in action by Environment Canterbury on default of the land occupier.

Enforcement – Default Action

Environment Canterbury can enforce the requirements of the RPMP where necessary under the provisions of Section 128 of the Biosecurity Act 1993. The preferred method of enforcement is to carry out the work required to comply with RPMP rules on behalf of the occupier. Less than 0.2% of annual RPMP inspections result in default action.

Recording regulatory activities

Records are kept of regulatory activities undertaken annually.

Objectives: Report on the use of regulation.

Targets: A report is submitted annually by 30 June.

Deliverables: A database of regulatory information is maintained and completed by 30 June each year.

Exemptions to rules

Under section 78 of the Act a regional council may, upon the written request of a land occupier, exempt any person from any requirement in any plan rule included in an RPMP. Before granting an exemption, the regional council needs to be satisfied that it will not significantly prejudice the attainment of the objectives of the RPMP, and that:

- The requirements have been substantially complied with and that further compliance is unnecessary; or
- The action taken, or provision made in respect of the matter to which the requirement relates is as effective as or more effective than actual compliance with the requirement; or
- The prescribed requirements are unreasonable or inappropriate in a particular case; or
- Events have occurred that make the prescribed requirements unreasonable or inappropriate in a particular case.

Regional councils that approve exemptions are required to maintain a register of the number and nature of exemptions granted, which are to be available for public inspection during normal office hours (as required by section 78 of the Act).

Output: Maintain a register of the number and nature of exemptions granted.

Planned expenditure

The planned CRPMP expenditure for 2023-2024 is summarised by activity and by pest programme in Table 2. Pest programmes include several pests and activities or principal measures (refer to Table 1).

Activity/Principal measure	Exclusion ($)	Eradication ($)	Progressive Containment ($)	Sustained Control ($)	Site led ($)	Other CRPMP related work ($)	Totals ($)
Service Delivery	33,331	77,541	1,723,032	400,741	194,209		2,428,854
Regulatory Inspections Compliance Inspections				2,419,545			2,419,545
Regulatory Inspections Enforcement						47,925	47,925
Population Trend Monitoring Pest animals						93,442	93,442
Population Trend Monitoring Pest plants						145,224	145,224
Education, Advice, Engagement						537,866	537,866
Canterbury Regional Pest Management Plan						58,432	58,432
Operational Planning						91,090	91,090
TOTALS	**33,331**	**77,541**	**1,723,032**	**2,820,286**	**194,209**	**973,979**	**5,822,378**

Table.2: Programme Budget for 2023-2024

1. Exclusion Programme

Prevent the establishment of a pest that is present in New Zealand but not yet established in the region.

Exclusion Programme pests

Common name	Botanical Name
Australian sedge	Carex longebrachiata
Broomsedge	Andropogon virginicus
Hornwort	Ceratophyllum demersum
Kangaroo grass	Themeda triandra
Koi carp	Cyprinus carpio
Noogoora bur	Xanthium strumarium
Nutgrass (purple nutsedge)	Cyperus rotundus
Oxylobium	Oxylobium lanceolatum
Palm grass	Setaria palmifolia
Spiny broom	Calicotome spinose
Woolly nightshade	Solanum mauritianum

Budget expenditure (Full programme) $33,331

CRPMP Objective 1

Over the duration of the Plan, preclude the establishment of exclusion pests within the Canterbury region to prevent adverse effects on economic well-being and environmental values.

Exclusion Programme Summary

Benefit	Protect economic wellbeing and environmental values.
Objective	Preclude exclusion programme pests from establishing in the Canterbury Region.
Principal measures	Education, Inspection, Service Delivery.
Targets	**1.** Undertake research work to determine highest risk, impacts, dispersal mechanisms, pathways, and arrival points.
Outputs	**1.** An awareness programme to encourage community reporting of Exclusion programme pests **2.** Surveillance, Investigations and if possible, management of pathways to prevent spread from other regions **3.** Incursion response if necessary **4.** Report on all activities in relation to preventing the establishment of Exclusion pests.

2. Eradication Programme

Eradication Programme pests

Common name	Botanical Name
Egeria	Egeria densa
Entire marshwort	Nymphoides geminata
Knotweed (Asiatic and giant)	Fallopia japonica x sachalinensis Fallopia sachalinensis
Moth plant	Araujia hortorum
Phragmites	Phragmites australis
Rook	Corvus frugilegus
Yellow bristle grass	Setaria pumila
Yellow water lily	Nuphar lutea

Budget expenditure (Full programme) $77,541

CRPMP Objective 2

Within 20 years of the commencement of the Plan, reduce all infestations of eradication pests to zero levels within the Canterbury region.

Eradication Programme Summary

Benefit	Protect economic wellbeing and environmental values.
Objective	Eliminate all Eradication pests either prior to reproducing or setting seed.
Principal measures	Education, Inspection, Service Delivery.
Targets	**1.** Seeding or reproduction is prevented or reduced.
Outputs	**2.** An awareness programme to encourage community reporting of Eradication programme pests **3.** All known sites which have an incidence of Eradication Pests is inspected **4.** Eradication pests are controlled prior to seeding or reproducing **5.** All reports of Eradication pest occurrence is investigated **6.** All land at high risk to immediate spread is searched annually **7.** An annual report on management programme progress is completed by 30 June.

3. Progressive Containment Programme

Progressive Containment Programme pests

Common name	Botanical Name
African feather grass	Pennisetum macrourum
African love grass	Eragrostis curvula
Baccharis	Baccharis halimifolia
Puna grass	Achnatherum caudatum
Wilding conifers – Contorta	Pinus contorta
Wilding conifers – Corsican	P. nigra
Wilding conifers – Scots	P.sylvestris
Wilding conifers – Mountain (including dwarf)	P. uncinata, P. mugo
Wilding conifers – Larch	Larix decidua

Budget expenditure (Full programme) $1,739,042
Note: Includes $1,618,265 for Wilding Conifers.

CRPMP Objective 3

Over the duration of the Plan, progressively contain and reduce the geographic distribution or extent of African feather grass, African love grass, baccharis and puna grass within the Canterbury region to prevent adverse effects on economic well-being and the environment.

Within the Canterbury region, the extent of African feather grass, African love grass, baccharis and puna grass will each be reduced by 10% within 10 years of the commencement of the Plan.

CRPMP Objective 4

Over the duration of the Plan, progressively contain by reducing the geographic distribution and extent of wilding conifers (contorta, Corsican, Scots, mountain and dwarf mountain pines, and larch) within the Canterbury region to reduce adverse effects on economic well-being and the environment.

Within the Wilding Conifer Containment Area, 900,000 hectares of land will be cleared of wilding conifers within 10 years of the commencement of the Plan. This may involve the destruction of contorta, Corsican, Scots, mountain and dwarf mountain pines and larch.

Progressive Containment Programme Summary

Benefit	Protect economic wellbeing and environmental values.
Objective	Eliminate all Progressive Containment pests either prior to reproducing or setting seed.
Principal measures	Education, Inspection, Service Delivery.
Targets	**1.** Contain and reduce progressive containment pests.
Outputs	**1.** An awareness programme to encourage community reporting of Progressive Containment programme pests **2.** All sites known to have Progressive Containment pests is inspected **3.** Progressive Containment pests are eliminated prior to seeding **4.** All land at high risk to immediate spread is searched annually **5.** An annual report on a management programme is completed by 30 June. *Excluding Wilding Conifer

**Note: Wilding conifer management in Canterbury is part of a national programme with an objective of Progressive Control. Strategic approach, prioritising regional operational needs and operational funding considerations are undertaken at the national level.*

Regional planning, management unit work prioritisation, and implementation is delivered at the regional level.

4. Sustained Control Programme

Sustained Control Programme pests

Common name	Botanical Name
Bell heather	Erica cinerea
Bennett's wallaby	Macropus rufogriseus rufogriseus
Boneseed	Chrysanthemoides monilifera
Broom – Common	Cytisus scoparius
Broom – Montpellier	Teline monspessulana
Broom – White	C.multiflorus
Bur daisy	Calotis lappulacea
Chilean needle grass	Nassella neesiana
Coltsfoot	Tussilago farfara
Darwin's barberry	Berberis darwinii
Feral rabbit	Oryctolagus cuniculus
Gorse	Ulex europaeus
Nassella tussock	Nassella trichotoma
Old man's beard	Clematis vitalba
Purple loosestrife	Lythrum salicaria
Saffron thistle	Carthamus lanatus

Budget expenditure (Full programme) $2,820,286

CRPMP Sustainable Control Programme Objective

To provide for ongoing control of the subject, or an organism being spread by the subject, to reduce its impacts on values and spread to other properties.

Bell Heather

Programme summary

Bell heather is confined to one site in the Hunter Hills in South Canterbury and is spread over 375 hectares. This is the only recorded site in the South Island. The priority is to contain Bell Heather to its current extent by preventing spread.

Benefit	Protect economic wellbeing and environmental values.
Objective	Contain Bell heather to current extent.
Principal measures	Education, Inspection, Service Delivery.
Targets	**1.** Contain Bell Heather to prevent spread **2.** High risk sites are searched.
Outputs	**1.** An awareness programme encouraging community reporting **2.** All sites known to have Bell heather are inspected **3.** A pathway management programme is initiated to ensure Bell heather plants are contained to current known sites **4.** Land at high risk to immediate spread is searched annually and any plants found are eliminated **5.** Surveillance and investigation activities are undertaken where Bell heather is reported outside the known sites **6.** An annual report on a management programme is completed by 30 June.

Budget expenditure **$32,980**

CRPMP Objective 5

Over the duration of the Plan, sustainably control bell heather in the Canterbury region to ensure its extent does not increase and environmental values are not adversely affected.

Bennett's wallaby

Programme Summary

Wallabies occupy approximately 650,000 hectares of land inside the Wallaby Containment Area and scattered over approximately 1 million hectares outside the Wallaby Containment Area.

Benefit	Protect economic wellbeing and environmental values.
Objective	Ensure Bennett's wallaby densities do not exceed Level 3 on the Guilford Scale on land within the Bennetts wallaby Containment Area (CRPMP, Appendix 4, Map 2) Where feasible, contain and control spread to prevent breeding populations forming Outside of the Wallaby Containment Area.
Principal measures	Advocacy, Education, Inspection, Requirement to act and Extensive coordinated Service Delivery funded under National Wallaby Eradication Programme (NWEP).
Targets	**1.** Occupiers within the Wallaby Containment Area will carry out the necessary control work to maintain their wallaby densities at or below level 3 Guilford Scale **2.** Under the National Wallaby Eradication Programme (NWEP) a major programme of work is being implemented between 2020-2025 to stop and push back the spread of wallaby outside containment, locally eradicating new populations and substantially reducing wallaby numbers within the buffer of the containment area to reduce that spread.

Outputs	**1.** An awareness programme encouraging occupier control within the Containment area and encouraging occupier and community reporting of wallaby seen Outside the containment area **2.** A selection of properties within the Containment area are inspected and Inspection advice, advocacy provided to Landowners on the CRPMP requirements and wallaby control tools and options **3.** 3. Under the NWEP a strategic, coordinated control program of work is planned and submitted to the NWEP Governance group to approve for funding annually **4.** 4. An annual financial year presentation on NWEP delivery and results is completed by 30 November.

Budget expenditure **$738,630** (excluding NWEP funding)

CRPMP Objective 6 (i)

Over the duration of the Plan:

Sustainably control Bennett's wallaby to ensure population densities remain at or below Level 3 on the Guilford Scale within the Wallaby Containment Area (refer to Map 2 in Appendix 3 of the CRPMP).

CRPMP Objective 6 (ii)

Preclude the establishment of Bennett's wallaby populations in the Canterbury region outside of the Wallaby Containment Area to minimise or prevent adverse effects to environmental and production values.

Boneseed

Programme Summary

Boneseed occurs as dense infestations within parts of the Containment (Port Hills and Lyttelton/Whakaraupō) Zone (See CRPMP Map 3) and as small, scattered infestations and isolated plants around the remainder of Banks Peninsula coastline and to the north of the Port Hills primarily on foreshores and at beach communities to north of Kaikōura.

Benefit	Protect environmental values.
Objective	Eliminate Boneseed plants prior to setting seed on 20% of infested land outside the Boneseed Containment Zone annually. Prevent clear land from becoming infested by boneseed within the Boneseed Containment Zone.
Principal measures	Education, Inspection, and Service Delivery.
Targets	**1.** Seeding is prevented at 20% of known infested land outside the Boneseed Containment Zone annually **2.** Within the Boneseed Containment Zone Boneseed is contained to known areas **3.** High risk sites are searched.
Outputs	**1.** Boneseed annually is eliminated over 20% of land known to have an incidence outside the Boneseed Containment Zone **2.** Boneseed plants are eliminated in partnership with land occupiers prior to seeding or reproducing within the Boneseed Containment Zone to prevent spread **3.** Land at high risk of immediate spread is searched annually **4.** An annual programme report is completed by 30 June.

Budget expenditure **$98,160**

CRPMP Objective 7

Over the duration of the Plan: (i) ensure the current population levels of boneseed do not increase within the Port Hills/Lyttleton Harbour Zone as shown on Map 3 in Appendix 3 of the CRPMP;

(ii) progressively reduce the densities of boneseed by 10% outside of the Port Hills/Lyttleton Harbour Zone to reduce adverse effects on biodiversity values.

Broom: Common, Montpellier, Spanish, White

Programme Summary

Broom occurs throughout Canterbury. The CRPMP emphasis for broom in the Sustained Control Programme is to ensure land occupiers manage broom on productive land in highly vulnerable hill and high country, which is substantially clear of broom, remains clear of broom.

Benefit	Protect economic wellbeing and environmental values.
Objective	1. Prevent the spread of broom to neighbouring properties either through complaint or targeted inspection programme 2. Contain broom spread within hill and high-country properties through a targeted educational programme.
Principal measures	Education, Inspection, Requirement to Act.
Targets	1. Broom is controlled on property boundaries 2. Land occupiers in the hill and high country are advised of the CRPMP requirements to eliminate broom occurring on property boundaries and as isolated plants and patches.
Outputs	1. Education is provided to land occupiers on broom management 2. All reports about broom on adjoining property boundaries are investigated 3. Inspections to assess compliance with CRPMP rules are undertaken in conjunction with Gorse 4. An annual report on inspection outcomes is completed by 31 July.

CRPMP Objective 8

Over the duration of the Plan, sustainably control broom to preclude land that is free of, or being cleared of, broom becoming infested, to prevent adverse effects on production values and economic well-being.

Budget expenditure **$236,925**

Bur Daisy

Programme Summary

Bur daisy occurs at 20 sites covering a combined affected area of 127.3 hectares in the Canterbury region. Bur daisy is declared a pest in the CRPMP Sustained Control Programme. Eliminating Bur daisy plants prior to seeding will reduce the number of plants and the seed bank over time.

Benefit	Protect economic wellbeing.
Objective	Eliminate all Bur Daisy plants prior to setting seed.
Principal measures	Education, Inspection, Service Delivery.
Targets	**1.** Seeding is prevented at all known sites **2.** High risk land (in vicinity of known infestations) is searched.
Outputs	**1.** An awareness programme encouraging community reporting **2.** All sites known to have an incidence of Bur daisy are inspected **3.** Bur daisy plants are eliminated prior to seeding **4.** All land at high risk to immediate spread of Bur daisy is searched **5.** An annual report on population trends is completed by 30 June.

Budget expenditure **$43,040**

CRPMP Objective 9

Over the duration of the Plan, sustainably control bur daisy within the Canterbury region to ensure its extent does not increase and production values on adjacent land are not adversely affected.

Chilean needle grass

Programme Summary

Chilean needle grass occurs at 6 locations on 25 properties in Canterbury over an infestation area of 325 hectares. Containing existing infestations is essential to prevent spread. Surveillance and investigations are required to detect new sites. Educational activities resulting in reports of Chilean needle grass will also assist in detecting new infestations annually.

Benefit	Protect economic wellbeing.
Objective	Contain Chilean needle grass at sites of known occurrence and reduce population density.
Principal measures	Education, Inspection (including surveillance) and Service Delivery (Control).
Targets	**1.** Seeding (aerial) is prevented at known sites **2.** High risk (adjacent to known sites and known pathway end points) sites are searched.
Outputs	**1.** Education and awareness of Chilean needle grass to promote passive surveillance and public reporting **2.** All known Chilean needle grass sites are subject to a control programme to eliminate Chilean needle grass **3.** Respond to all reports of Chilean needle grass within two working days **4.** Highly susceptible land (adjacent to known sites and known pathway end points) is searched **5.** A containment programme detailing processes and protocols is developed annually in conjunction with land occupiers affected by Chilean needle grass **6.** A report on trends in incidence of Chilean needle grass is completed by 30 June annually.

Budget expenditure **$142,810**

CRPMP Objective 10

Over the duration of the Plan, sustainably control Chilean needle grass within the Canterbury region to ensure:

(i) that current infestation levels do not increase; and

(ii) any spread to other properties is prevented to minimise its adverse impacts on pastoral production values.

Coltsfoot

Programme Summary

Coltsfoot occurs at 2 locations and 27 sites in Canterbury over approximately 1100 hectares. Containing and reducing existing infestations is essential in preventing further spread to protect natural biodiversity values.

Benefit	Protect environmental values.
Objective	Over the duration of the CRPMP, work with land occupiers to contain Coltsfoot plants to current areas of occurrence.
Principal measures	Education/Advocacy, Inspection (including surveillance) and Service Delivery (Control).
Targets	**1.** All known sites with an incidence of coltsfoot within the last 5 years is inspected **2.** Seeding is prevented.
Outputs	**1.** An awareness programme encouraging community reporting **2.** All known Coltsfoot sites active within the previous 5 years are subject to a control programme and plants found are eliminated **3.** Reports of Coltsfoot incidence is followed up **4.** A report on trends in incidence of Coltsfoot is completed by 30 June annually.

Budget expenditure **$37,040**

CRPMP Objective 11

Over the duration of the Plan, sustainably control coltsfoot within the Canterbury region, to ensure its extent does not increase and biodiversity values on adjacent land are not adversely affected.

Darwin's barberry

Programme summary

Darwin's barberry occurs at >250 sites in Canterbury over 2500 hectares. Working in partnership with land occupiers, agencies and District Councils to contain the incidence of Darwin's barberry where it can impact on natural biodiversity.

Benefit	Protect environmental values.
Objective	Over the duration of the CRPMP, contain or reduce Darwin's at high value ecological sites in partnership with land occupiers and agencies.
Principal measures	Education, Inspection and Service Delivery (Control).
Targets	**1.** Seeding is prevented or reduced at 2 high value ecological sites **2.** Land surrounding targeted high value ecological sites are searched and Darwin's barberry plants are eliminated.
Outputs	**1.** All known Darwin's barberry sites are subject to assessment of presence or absence and where present control programmes at targeted high value ecological sites to biodiversity is undertaken **2.** Darwin's barberry plants are eliminated at 2 targeted high value ecological sites **3.** A report on incidence of Darwin's barberry is completed by 30 June.

Budget expenditure **$31,160**

CRPMP Objective 12

Over the duration of the Plan, sustainably control Darwin's barberry to ensure that the extent of its infestations does not increase at the known 254 sites in the Canterbury Region and that biodiversity and environmental values on adjacent land are not adversely affected.

Feral rabbit

Programme summary

Feral rabbits occur throughout the Canterbury region. Population densities fluctuate due to the impact of Rabbit Haemorrhagic Disease Virus and to a lesser degree by traditional control methods undertaken by land occupiers. Environment Canterbury inspects land designated as highly prone annually to ensure land occupiers are keeping rabbits at required levels and reacts to complaints about rabbits from land occupiers directly affected by neighbouring properties. Inspections are indicative of the general need for the level of inspection activity required annually.

Benefit	Protect economic wellbeing and environmental values.
Objective	Ensure land occupiers keep rabbits at or below Level 3 Modified McLean Scale.
Principal measures	Education and Regulatory Inspections.
Targets	**1.** A sample of land considered high rabbit prone is inspected **2.** Where rabbit population densities exceed MMS3 actions are taken to reduce densities.
Outputs	**1.** Education is provided to land occupiers on rabbit management **2.** All reports of rabbits are investigated **3.** A selection of high rabbit prone properties are inspected **4.** A report on population trends of Feral rabbit is completed by 30 June.

Budget expenditure **$174,036**

CRPMP Objective 13

Over the duration of the Plan, sustainably control feral rabbits to ensure population levels do not exceed Level 3 on the Modified McLean Scale in order to minimise adverse effects on production and environmental values within the Canterbury region.

Gorse

Programme summary

Gorse occurs throughout Canterbury. The CRPMP emphasis for broom in the Sustained Control Programme is to ensure land occupiers manage gorse on productive land in highly vulnerable hill and high country, which is substantially clear of gorse, remains clear of gorse.

Benefit	Protect production values in the Canterbury Region's Hill and High country.
Objective	**1.** Prevent the spread of gorse to neighbouring properties either through complaint or targeted inspection programme **2.** Contain gorse spread within hill and high-country properties through a targeted inspection programme.
Principal measures	Education, Regulation, and Inspection.
Targets	**1.** Gorse is controlled on property boundaries **2.** Land occupiers in the hill and high country are advised of the CRPMP requirements to eliminate broom occurring on property boundaries and as isolated plants and patches
Outputs	**1.** Education is provided to land occupiers on gorse management **2.** All reports about gorse on adjoining property boundaries are investigated **3.** Inspections to assess compliance with CRPMP rules are undertaken in conjunction with broom. **4.** An annual report on inspection numbers/outcomes is completed by 31 July annually.

Budget expenditure **$236,925**

CRPMP Objective 14

Over the duration of the Plan, sustainably control broom to preclude land that is free of, or being cleared of gorse becoming infested, to prevent adverse effects on production values and economic well-being.

Nassella tussock

Programme Summary

Nassella tussock occurs throughout Canterbury with >1460 properties with a known history of occurrence, predominately in the northern half of the region. The CRPMP emphasis for Nassella tussock in the Sustained Control Programme is to ensure land occupiers manage Nassella tussock on their land to prevent spread and ensure population levels do not increase. A significant area of Canterbury remains susceptible to Nassella tussock. Searching to detect new infestations will be carried out annually.

Benefit	Protect production values.
Objective	The population density of Nassella tussock plants decreases or remains static on a rolling average, calculated over each 5-year period.
Principal measures	Education, Inspection, Requirement to Act, Service Delivery.
Targets	**1.** An inspection programme to ensure Nassella tussock is being managed occurs **2.** Highly prone land a risk to Nassella tussock occurrence is inspected.
Outputs	**1.** Education is provided to land occupiers on Nassella tussock management **2.** 30% of all properties in Canterbury with known infestations of Nassella tussock are inspected annually **3.** 5% of land that is highly susceptible to infestation to Nassella tussock is identified and searched annually **4.** A report on the population trends of Nassella tussock is completed by 30 June 2023.

Budget expenditure **$762,595**

CRPMP Objective 15

Over the duration of the Plan, sustainably control Nassella tussock within the Canterbury region to ensure current population levels do not increase in order to minimise adverse effects on production values.

Old man's beard

Programme summary

Old man's beard occurs throughout Canterbury. The CRPMP emphasis for Old man's beard in the Sustained Control Programme is to ensure land occupiers manage Old man's beard on their land to prevent spread to areas of natural biodiversity.

Benefit	Protect environmental values.
Objective	Contain or reduce Old Man's beard (OMB) populations to ensure that natural biodiversity values are protected in the Canterbury region.
Principal measures	Education, Regulation, Inspection and Service Delivery.
Targets	**1.** Areas of high natural biodiversity is protected **2.** An inspection programme to determine rules compliance is undertaken.
Outputs	**1.** Education is provided to land occupiers on Old man's beard management **2.** Land where Old man's beard threatens sites of high value natural biodiversity and immediately surrounding CRPMP Site led initials are inspected **3.** Land occupiers are asked to undertake work where required by CRPMP rules where Old man's beard threatens high value natural biodiversity **4.** An annual report on inspections is completed by 30 June.

Budget expenditure **$127,651**

CRPMP Objective 16

Over the duration of the Plan, sustainably control old man's beard within the Canterbury region, to ensure current plant numbers or density levels do not increase in order to minimise adverse impacts on environmental values.

Purple loosestrife

Programme summary

Purple loosestrife occurs sporadically throughout Canterbury. The CRPMP emphasis for Purple loosestrife in the Sustained Control Programme is to eliminate all plants annually in partnership with land occupiers and other agencies to reduce population density and prevent spread to areas of natural biodiversity. Educational activities resulting in reports of purple loosestrife will assist in detecting new infestations annually.

Benefit	Protect environmental values.
Objective	Contain or reduce Purple loosestrife populations to ensure that natural biodiversity values are protected in the Canterbury region.
Principal measures	Education, Inspection, Service Delivery.
Targets	**1.** Prevent Purple loosestrife seeding **2.** Purple loosestrife is eliminated at known sites.
Outputs	**1.** Awareness **2.** Lead the Purple loosestrife programme in Canterbury **3.** Ensure Purple loosestrife is eliminated where found **4.** A report on the annual control programme is completed by 30 June.

Budget expenditure **$16,720**

CRPMP Objective 17

Over the duration of the Plan, sustainably control purple loosestrife to ensure its extent does not increase and biodiversity values on adjacent land are not adversely affected.

Saffron thistle

Programme summary

Saffron thistle occurs at isolated sites throughout Canterbury. The CRPMP emphasis for Saffron thistle in the Sustained Control Programme is to eliminate all plants annually to reduce population density and prevent spread. Awareness activities resulting in reports of Saffron thistle will assist in detecting new infestations annually.

Benefit	Protect production values.
Objective	Eliminate all Saffron thistle plants prior to setting seed.
Principal measures	Education, Inspection, Service Delivery.
Targets	**1.** Seeding is prevented **2.** High risk land is searched.
Outputs	**1.** Education is provided to land occupiers on Saffron thistle management **2.** All sites known to have an incidence of Saffron thistle are inspected **3.** Saffron thistle plants are eliminated prior to seeding in partnership with land occupiers **4.** Land in the immediate vicinity of known sites is searched **5.** A report on the annual control programme is completed by 30 June.

Budget expenditure **$32,660**

CRPMP Objective 18

Over the duration of the Plan, sustainably control saffron thistle within the Canterbury region to ensure current plant numbers or density levels do not increase in order to minimise adverse effects on production values.

Wild Russell lupin

Programme summary

Wild Russell lupin is known to occur in numerous locations in Canterbury's high-country catchments. Initially the priority for this programme will be to assist in protecting existing biodiversity work being undertaken in high country catchments and to gather information to determine the full extent of Wild Russell lupin. This information will assist in determining priorities for future control work.

Benefit	Protect environmental values.
Objective	Over the duration of the RPMP, contain or reduce Wild Russell lupin populations to ensure that natural biodiversity values are protected in the Canterbury region.
Principal measures	Education, Inspection, Requirement to Act, Service delivery.
Targets	**1.** Prevent establishment of Wild Russell lupin wherever possible **2.** Prevent spread of Wild Russell to adjoining properties and waterways.
Outputs	**1.** Education is provided to land occupiers on Wild Russell lupin management **2.** Determine the distribution of Wild Russell lupin in Canterbury **3.** React to complaints where Wild Russell Lupin contravenes CRPMP rules **4.** Monitor the effectiveness of control sites.

Budget expenditure **$41,200**

CRPMP Objective 19

Over the duration of the Plan, sustainably control the extent of Wild Russell lupin to preclude land that is free of wild Russell lupin, and being cleared of Russell lupin becoming infested, and also preclude establishment of Russell lupin within specified distances from waterways to prevent adverse effects on environmental values.

5. Site-led Programme

Programme summary

Sites to be managed under the site-led programmes may range in extent from small areas within a property to larger areas covering multiple properties. Their values can be threatened by individual or multiple organisms. Therefore, pest management regimes specifically tailored to each site will be necessary.

Common name	Botanical Name
Banana passionfruit	Passiflora tripartita var mollissima P. tripartita var azuayansis P. tarminiana P. pinnatistipula Passiflora x rosea P. caerulea
Broom – Common	Cytisus scoparius
Broom – Montpellier	Teline monspessulana
Broom – Spanish	Spartium junceum
Broom – White	Cytisus multiflorus
Cathedral bells	Cobaea scandens
Feral goats	Capra aegagrus hircus
Gorse	Ulex europaeus
Lagarosiphon	Lagarosiphon major
Old man's beard	Clematis vitalba
Possum	Trichosurus vulpecula
Spartina	Spartina alterniflora, S. anglica, S. gracilis, S. maritime, S. × townsendii
White-edged nightshade	Solanum marginatum
Wild Thyme	Thymus vulgaris

CRPMP Objective 20

For each site in the Canterbury region listed in Appendix 4, progressively control, where present:

(i) Cathedral bells

(ii) Banana passionfruit;

(iii) Old man's beard;

(iv) White-edged nightshade; and

(v) Wild Thyme;

to avoid, mitigate or prevent damage to the specific values particular to each site.

For each site, the first 10 years of the Plan's operation will result in the:

(i) Extent of Cathedral bells being reduced by 30%;

(ii) Extent of banana passionfruit is reduced by 50%;

(iii) Extent of old man's beard being reduced by 75%;

(iv) Extent of white-edged nightshade being reduced by 10%;

(v) Extent of wild thyme being reduced by 50%

Programme summary – Site-led

Benefit	Protect environmental values.
Objective	Manage pests to protect and enhance sites of natural biodiversity.
Principal measures	Education, Inspection and Control.
Targets	**1.** Sites identified within the site led programme of the CRPMP **2.** Identify other organisms which may threaten site-led initiatives.
Outputs	**1.** Inspect sites identified in the CRPMP as Site-led initiatives **2.** Implement annual control work **3.** An annual report on progress at sites is completed by 30 June.

Budget expenditure **(Full programme) $194,209**

CRPMP Objective 21

For each site in the Canterbury region listed in Appendix 4, sustainably control, where present:

(i) Spartina;

(ii) Broom;

(iii) Gorse;

(iv) Possum;

(v) Lagarosiphon (sites 1 and 2 of Appendix 4A)

to avoid, mitigate or prevent damage to the specific values particular to each site. For each site, the first 10 years of the Plan's operation will result in the:

(i) The area of spartina being reduced by 75%;

(ii) The extent of broom being reduced by 10%;

(iii) The extent of gorse being reduced by 10%;

(iv) The number of possums being reduced to 5% Residual Trap Catch (RTC);

(v) Prevention of the spread of Lagarosiphon from locations 1 and 2 of Appendix 4A.

CRPMP Objective 22

Over the duration of the Plan, for sites 3-15 of Appendix 4B, preclude the establishment of lagarosiphon, to prevent damage and adverse effects to biodiversity and environmental values at these sites.

CRPMP Objective 23

Manage domestic and farmed goats and remove the population of feral goats within the Containment Area shown on Map 14 in Appendix 4 to prevent adverse effects on environmental values.

Within the Containment Area shown on Map 14 in Appendix 4, the population of feral goats will be reduced by at least 50% in the first 10 years of the Plan.

Photo: Broom © Ina Siebert

Environment Canterbury Regional Council
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Facilitating sustainable development in the Canterbury region
ecan.govt.nz

Report number: R23/54

ERP9122

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Cover photo: Spanish white broom