

Canterbury Regional Pest Management Strategy (2005-2015) Operational Plan for 2008-09

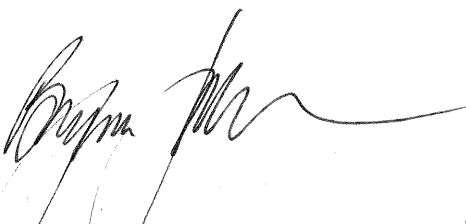
Report No. R08/40
ISBN: 978-1-86937-833-2
August 2008

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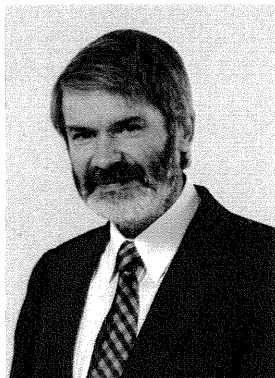
PREPARED UNDER THE BIOSECURITY ACT 1993

I hereby certify that this is a correct copy of the Operational Plan 2008-09 for the implementation of the Canterbury Regional Pest Management Strategy (2005-2015).

This Plan has been prepared and adopted by the Canterbury Regional Council in accordance with the requirements of the Biosecurity Act 1993, on 28th August 2008.



Dr Bryan Jenkins
Chief Executive
Canterbury Regional Council
29 August 2008



FROM THE CHAIR

As required by the Biosecurity Act, the 2008/09 Operational Plan sets out Environment Canterbury's expenditure and overall work programme for implementing the Canterbury Regional Pest Management Strategy (2005-2015).

New Pest Management Liaison Committees have been elected, as they are every three years shortly after the local body elections. The committees meet several times annually. They advise the Council on how the Regional Pest Management Strategy is best implemented, comment on the Council's annual budget for pest work and approve the level of targeted rate for their pest district.

The 2008/09 year will be a transition period for the new administrative arrangements for implementing the national pest management strategy for bovine Tb. The Animal Health Board is taking over responsibility for co-ordinating control operations for Tb vectors such as possums and ferrets, work previously organised by Environment Canterbury. Canterbury is currently on track to achieve the 2013 goal of 0.2% infected herds or two herds in every thousand.

The wind down of the Tb vector control programme creates a challenge in how to protect the significant asset of reduced possum numbers which the programme has created. One option is more Community Initiated Programmes for possum control, similar to that which Banks Peninsula Pest Management Liaison Committee initiated when possum control for Tb purposes stopped on the Peninsula.

The 2009 autumn and winter will be critical for rabbit control. In 2008, landholders are responding well by organising control work in rabbit-prone districts such as Waikari, Amuri, and the Mackenzie Basin. The Council is applying for a region wide resource consent for aerial 1080 operations which landholders can use, provided control operations meet appropriate technical standards.

Development of a wilding conifer control strategy should be completed this year. It will help implement the commitment to greater co-operation between agencies and landholders on wilding control set out in a 2007 Heads of Agreement between Environment Canterbury, Department of Conservation, Land Information New Zealand, and Federated Farmers.

The Regional Pest Management Strategy and annual Operational Plans focus on the region, but operate in a national context. In an effort to make the current regime more effective, regional councils have prepared a collective view for central government titled "*The Future Management of Pests in New Zealand: A Think Piece.*" It calls for greater clarity on the national and regional responsibilities around the discovery of new pest incursions and more flexibility to respond to new pest threats. These and other recommendations potentially involve changes to the Biosecurity Act.



Eugenie Sage
Pests Portfolio Chairperson

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PART I: INTRODUCTION

1.1 THE CANTERBURY REGIONAL PEST MANAGEMENT STRATEGY 2005-2015

The Canterbury Regional Pest Management Strategy is reviewed every five years and provides the democratic process that determines what pests should be controlled to benefit the region as a whole. Pests are introduced plants and animals that threaten our health, economy, Maori heritage, recreation, native plants, animals and habitats (biodiversity). Thirty eight plants and nine animals are declared pests in the Strategy.

Total control programme

Total control pests are in low incidence or have a restricted range across the entire region, and have a high potential for spread and impact. The Strategy objective is to eradicate all total control pests over the next decade.

Progressive control programme

Progressive control pests are in low incidence or restricted range within parts of the region, with a high potential for spread and impact. The Strategy objective is to reduce the population of progressive control pests.

Containment control programme

Containment pests are widespread pests, with a high impact on production in parts of the region. The Strategy objective, in general, is to maintain target densities of the pest, and to prevent pests establishing on land currently free of the pest.

Landholders are generally responsible for control, and ECan enforces rules relating to specific pests. In the Banks Peninsula Pest District, rabbit and possum control is carried out through targeted rates.

Biodiversity pest programme

Biodiversity pests are widespread in the region, and in some areas, are having a high impact on biodiversity values. Other organisms to be controlled are not declared pests, but are recognised as threats to biodiversity. The Strategy objective, in general, is to protect High Value Environmental Areas (HVEA). A process for identifying HVEA is outlined in the Strategy.

Community Initiative programme

ECan facilitates community pest control programmes dependent on the pest of concern, the distribution of the pest, the commitment of landholders to undertake control, integration with other control programmes, the degree to which applicants represent the parties affected by the proposed control programme and the views of the local Pest Management Liaison committee. Successful CIP applications may gain support in principle, assistance in preparing an action plan, and if approved through the Annual Plan process, funding.

To find out more

For further information contact Customer Services and ask for a copy of our free pamphlets – Plant and Animal Pests of the Canterbury region; Wage War on Pests in Canterbury – or the latest free Pest News. Copies of the Pest management Strategy, Operational Plans and Reports can be viewed on our website.

1.2 THE OPERATIONAL PLAN

The Operational Plan implements the Canterbury Regional Pest Management Strategy (2005-2015). This Operational Plan reviews the Operational Plan (2007-2008), while its progress is monitored through the yet-to-be prepared Operational Report (2008/09).

The Operational Plan identifies:

- Who is responsible for pest control
- The activities or principal measures used to implement the Strategy
- The levels of service provided
- The planned pest expenditure for 2008/09

Landholders are responsible for the control of most pests on their property. ECan controls pests when they are new to the region, when control methods require technical expertise (e.g. biological control), and when coordinated control gives benefits to the region as a whole. ECan regulates when pest control is mandatory, and monitors the operational efficiency and effectiveness of control programmes.

Other biosecurity and pest management activities are undertaken by ECan, outside the scope of the RPMS e.g. undertaking a surveillance project to detect potential pests, Living Streams, Environment Enhancement Awards.

ECan funds principal measures or activities through General rates and Targeted rates based on pest rating districts. The boundaries of the 11 pest rating districts do not correspond to District Council boundaries.

PART II: PLANNED EXPENDITURE

The planned expenditure for 2009-2009 is summarised by activity (as outlined in the Long Term Council Community Plan and Annual Plans) or principal measure (as outlined in the RPMS) and by pest programme by targeted and general rate (Table 2.1 and Fig 1). Pest programmes include several pests and activities or principal measures (Table 2.2).

Table 2.1 Planned expenditure for 2008-2009

Principal measures/activity	Total Control (\$)	Progressive Control (\$)	Containment Control (\$)	Biodiversity (\$)	Community Initiative (\$)	TOTAL (\$)
Control operations						
Pest animals	7,112		34,244	236,936	106,052	384,344
Pest plants	80,407			329,220		409,627
BioControl			41,497			41,497
Section 100				19,558		19,558
TOTAL						855,026
Regulation						
Inspections – pest animals	3,320		426,865			430,185
Inspections – pest plants	52,561	493,545	406,344	275,552		1,228,002
Inspections – pest sales						17,815
Enforcement						616,515
TOTAL						2,292,517
Monitoring						
Pest animals	5,577		110,972			116,549
Pest plants	2,507	46,389	30,131			79,027
Biodiversity				36,565		36,565
Surveillance						38,223
TOTAL						270,364
Advice/Education						
Pest animals						26,641
Pest plants						53,704
PMLC						94,608
Social marketing						29,985
TOTAL						204,938
Investigations						
TOTAL	151,484	539,934	1,050,053	897,831	106,052	3,736,470

Figure 1: Planned expenditure for 2008-2009

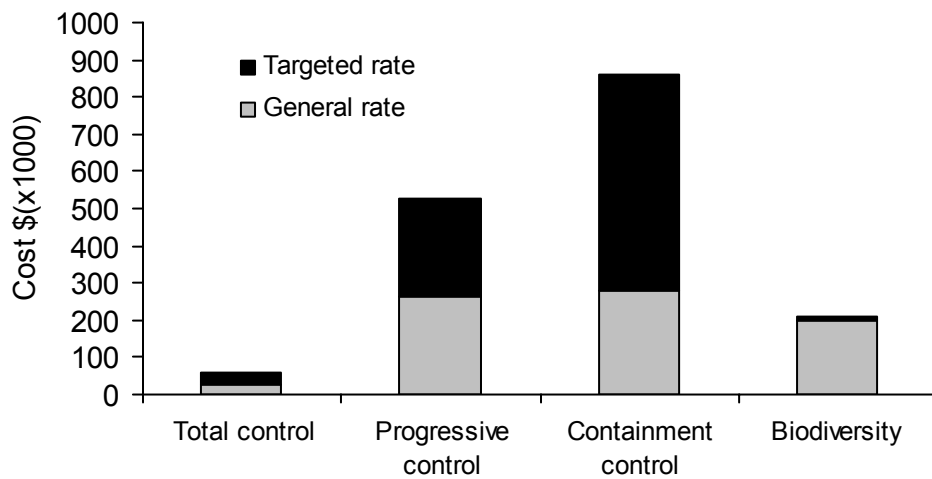
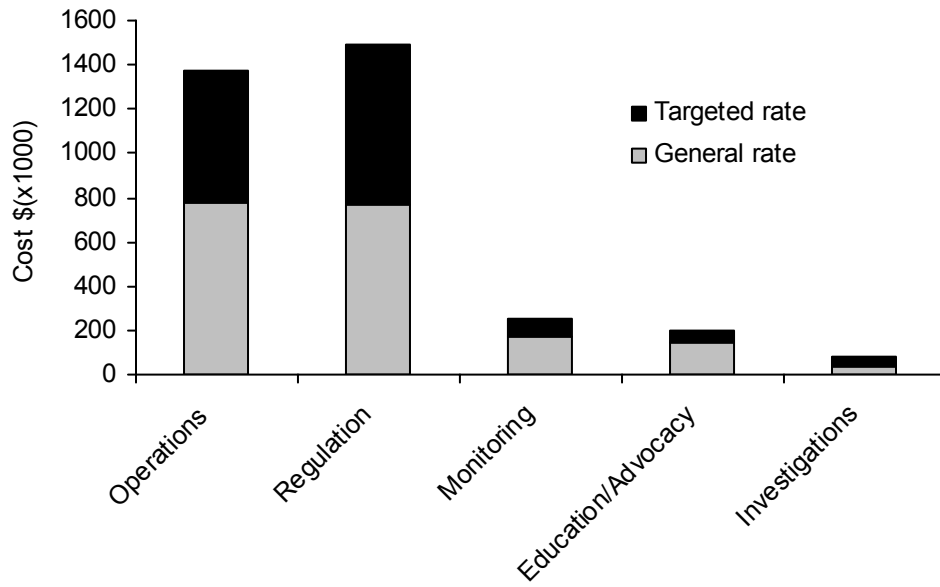


Table 2.2 Summary of principal measure/activity by pest

	Operations	Regulation	Monitoring	Advice/ education	Investigations
Total control					
Rook	√		√		
African feather grass	√		√	√	
African love grass	√		√	√	
Baccharis	√		√	√	
Bur daisy	√		√	√	
Coltsfoot	√		√	√	
Entire marshwort	√		√	√	
Saffron Thistle	√		√	√	
White-edged nightshade	√		√	√	
Progressive control					
Nassella tussock		√		√	√
Containment control				√	
Rabbit		√	√	√	√
Possum	√		√	√	
Bennett's wallaby	√	√	√	√	√
Gorse	Bio-control	√		√	√
Ragwort	Bio-control	√		√	
Broom		√		√	
Variegated thistle	Bio-control	√	√	√	
Nodding thistle	Bio-control	√	√	√	√
Biodiversity					
Feral cat					
Feral goat	√				
Ferret	√				
Weasel	√				
Stoat	√				
German wasp					
European wasp					
Possum	CIP				
Banana passionfruit	√			√	√
Bell heather	√	√		√	
Boneseed	√	√		√	√
Darwin's barberry	√			√	
Egeria	√	√		√	
Hieracium	Bio-control				√
Lagarosiphon	√	√		√	
Old Man's Beard	√		√	√	√
Phragmites	√	√		√	
Lodgepole pine	√	√			
Wild thyme	√	√		√	

PART III: PRINCIPAL MEASURES

Principal measures are the activities funded by ECan to assist the regional community in meeting the Strategy objectives. These are summarised into six main areas:

- Operations (pest control and operational monitoring)
- Regulation (inspection, enforcement, compliance monitoring)
- Monitoring (trend monitoring and outcome monitoring)
- Education and advice
- Investigations

3.1 OPERATIONS

ECan undertakes pest control operations and operational monitoring for total control pests, and may undertake control as part of enforcement (action on default) or, on behalf of landholders e.g. through Community Initiative Programmes. Standard pest animal monitoring protocols for rabbits, wallabies, rooks, mustelids (stoats, weasels, ferrets) and possums are used to indicate relative densities (high, medium, low).

Landholders and occupiers are responsible for the control of some of the pests on the land that they occupy, except for the Crown (e.g. Department of Conservation, Land Information New Zealand).

Transit New Zealand is responsible for pest control on State Highways. Landholders and occupiers are responsible for pest control on adjoining roadsides and roadside reserves containing unformed roads. Local authorities are responsible for pest control on roadsides and roadside reserves containing formed roads as outlined in Table 3.1 below.

Table 3.1 Responsibilities for formed roads

Territorial Authority Area	Responsibility for pest control on roadsides and roadside reserves
Hurunui District Council	Responsible
Christchurch City Council	Responsible
Waitaki District Council	Responsible
Timaru District Council	Responsible
Waimakariri District Council	No responsibility
Kaikoura District Council	No responsibility
Mackenzie District Council	No responsibility
Banks Peninsula District Council	No responsibility
Selwyn District Council	No responsibility
Waimate District Council	No responsibility
Ashburton District Council	No responsibility
State Highways	Responsible

3.2 REGULATION

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

Land occupiers receive written advice as to whether the property is compliant with rules in the Strategy or not. If a property does not comply, the land occupier is given advice to assist them with carrying out the required pest control.

A Notice of Direction is served on land occupiers when properties remain non compliant, directing that the outstanding work be undertaken by a specified date. Where land occupiers

fail to comply with the Notice then ECan undertakes Action on Default on the land occupiers behalf and cost.

Compliance monitoring measures the effectiveness of this programme. Records are kept of the number of inspections, notices of direction served, and number of complaints received.

Inspections

ECan carries out an inspection programme, and responds to complaints to ensure that land occupier initiated pest control meets the requirements of the Strategy. ECan 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 Strategy. For efficiency, inspections are also carried out for Unwanted Organisms (see other pest services) funded outside the provisions of the Strategy.

Enforcement

At the completion of an inspection, an Inspection Advice is given or sent to the land occupier detailing the information recorded, and any Action on default undertaken.

Objectives	Regulate to ensure that the objectives of the RPMS are met.
Targets	1. Notices of Direction are issued to 80% of non compliant landowners within 6 months of an initial inspection advice. 2. Action on Default is undertaken within 6 months of expiry of a Notice of Direction.
Outputs	A compliance monitoring data base is up to date by June each year.

Code	Project	2006/07	2007/08	2008/09
0403	Enforcement	\$101,533	\$105,006	\$616,517
0407	Inspections – pest sales	\$15,126	\$16,402	\$17,815

3.3 MONITORING

Surveillance

Surveillance measures long term trends in pest presence/absence of pests in restricted distributions within the region. ECan undertakes surveillance for potential pests in partnership with Weedbusters and the Department of Conservation and services a Potential Pest phone line to deal directly with enquiries.

Current potential pests are listed below:

Mat grass	Madeira vine
Moth plant	Horsetails
Sea lavender	Hornwort
Puna grass	Beggar's ticks
Sulphur crested cockatoo	

Code	Project	2006/07	2007/08	2008/09
0404	Surveillance	\$35,963	\$37,788	\$38,223

Monitoring

Trend monitoring measures long term trends in the density and extent of widespread pests. Population structure monitoring measures the relative proportion of males to females and adults to juveniles. Trend and population monitoring provides information on the effectiveness of pest control operations and progress towards achieving Strategy 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 or not 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 time frames (10-30 years) on a regional scale. Outcome monitoring for biodiversity contributes to state of the environment monitoring, and is reported on under this programme.

3.4 INVESTIGATIONS

Section 13 of the Biosecurity Act gives powers to regional councils to gather information, keep records and undertake research on pests. ECan may also contribute information on pests to databases maintained by other agencies.

Objectives	Carry out investigations to improve the management and monitoring of pests.
Targets	Support at least one investigation annually.
Outputs	The following investigations are completed and reported on by 30 June 2009: <ul style="list-style-type: none"> - the biocontrol programme for plant pests - the ecology study of nassella tussock - the impact of rabbit haemorrhagic disease on rabbit populations. ECan will also support the national investigation on new control tools for wallabies and feral pigs.

Code	Project	2006/07	2007/08	2008/09
0400	Investigations	\$97,979	\$101,842	\$113,632

ECan supports the development and application of new control and monitoring tools including biological control, and supports investigations into the pest itself, to provide information on probable areas of high risk, and factors influencing control effectiveness.

Current investigations are the ecology of Nassella tussock and the effectiveness of Rabbit Haemorrhagic Disease (RHD). Current support is given to Landcare Research's biological control for pest plants programme.

3.5 INFORMATION, EDUCATION AND ADVICE

ECan provides general pest information, education and advice, to encourage community initiated pest control. Up to four public meetings and/or field days are provided on request, and displays staffed on at least two pest Agricultural and Pastoral shows as minimum. Regular articles are written for issues of "Living Here" distributed to all ratepayers. Issues of "Pest News" and different pest fact sheets are made available by request. Staff give presentations to various groups, and are interviewed on radio. Regular media articles are written and released to newspapers, television and radio. ECan also acts as the Regional Coordinator for the national Weed Busters programme and works in partnership with the Department of Conservation to raise community awareness to pest plants and providing advice on weed control methods.

Pest Management Liaison Committees

Pest Management Liaison Committees provide a forum for discussion on a wide range of pest management issues and processes, and provide advice on the effectiveness and efficiency of pest management in their district.

ECan meets regularly with Pest Management Liaison Committees in 9 (Kaikoura, Amuri (including the Hurunui Nassella tussock district), Waikari, Ashley, Selwyn, Banks Peninsula, Ashburton, South Canterbury and Kurow) of 11 pest rating districts. Federated Farmers and other stakeholder groups are contacted directly in the Mackenzie and Omarama Districts.

Objective	To provide advice and education to the regional community that increases awareness of the nature and threats posed by pest animals and plants
Target	ECan's role in pests and biodiversity is consistently recognised by the regional community
Outputs	<ol style="list-style-type: none"> 1. Production of pest related publicity material. 2. Two pest displays per annum at rural A&P shows. 3. Attendance at up to 4 public meetings and field days on request. 4. Provision of pest information and advice on request.

Code	Project	2006/07	2007/08	2008/09
0417	Public information - pest plants	\$46,300	\$49,442	\$53,703
0418	Public information - pest animals	\$25,525	\$25,498	\$26,643
0419	Public information - pests	\$27,010	\$28,194	\$29,985
0205	PMLC meetings	\$91,353	\$91,353	\$94,608

PART IV: PEST PROGRAMMES

TOTAL CONTROL PEST PROGRAMME

4.1.1 PEST ANIMALS

Rook *Corvus frugilegus*

Benefit	Maintain or improve regional production values.
Objective	Over the duration of the strategy, destroy all rooks within the Canterbury Region.
Principal measures	ECan will undertake control and monitor rook numbers. Landowners and occupiers are bound by the Strategy NOT to undertake control unless authorised.
Targets	<ol style="list-style-type: none"> 1. The number of adult pairs in 2005-2008 is less than in 2000-2004 (progress towards eradication). 2. No juvenile rooks for 3 successive years (eradication).
Outputs	<ol style="list-style-type: none"> 1. All properties are inspected for rooks in accordance with the inspection programme. 2. Rook control occurs in all existing populations by 31 Oct annually. 3. Rook control occurs for all new populations within 6 weeks of confirmed reports. 4. A register of rook sightings is updated annually. 5. A report on the trend and status of rooks is completed by February each year.
RPMS Rule 5.2.5	<p>Other than under the instructions or supervision of an authorised person, land occupiers and other persons shall not at any time:</p> <ol style="list-style-type: none"> (a) poison, capture or trap any rook; or (b) discharge any firearm at any rook; or (c) discharge any firearm at or within 500m of any tree known to contain a rookery; or (d) damage, disturb or interfere in any other way with a rookery. <p>These rules shall not apply to the activities of an authorised person in exercising or performing a function power or duty under the Strategy.</p>

Code	Project	2006/07	2007/08	2008/09
0416	Compliance inspections	\$3,379	\$3,468	\$3,320
0722	Operations	\$12,683	\$12,691	\$7,117
0376	Trend monitoring	\$5,105	\$5,255	\$5,577

4.1.2 PEST PLANTS

African feather grass *Pennisetum macrourum*

African Love Grass *Eragrostis curvula*

Baccharis *Baccharis halimifolia*

Bur Daisy *Calotis lappulacea*

Coltsfoot *Tussilago farfara*

Entire Marshwort *Nymphoides geminata*

Saffron Thistle *Carthamus lanatus*

White-Edged Nightshade *Solanum marginatum*

Benefit	Maintain or improve regional production and/or biodiversity values.
Objectives	<p>(a) Over the duration of the Strategy, destroy all Total Control category pest plants prior to viable seed set within the Canterbury region.</p> <p>(b) Over the duration of the Strategy, destroy all entire marshwort plants within the Canterbury region (note: does not set seed).</p>
Principal measures	ECan places an emphasis on control and monitoring (searching properties). Landowners and occupiers are not bound by the Strategy to undertake control.
Targets	<ol style="list-style-type: none"> 1. No seeding plants are found in known areas. 2. No new sites are found.
Outputs	<ol style="list-style-type: none"> 1. All properties are inspected for total control plants in accordance with the inspection programme. 2. Plants are eradicated at known sites prior to seeding at least once annually. 3. All land at high risk is searched annually. 4. An annual report on trends in the status of Total Control pests is completed by 30 June each year.
RPMS Rules 5.3.5, 5.4.5, 5.5.5, 5.6.5, 5.7.5, 5.8.5, 5.9.5, 5.10.5:	No person shall sell, propagate or distribute any total control pest plants or part thereof.

Code	Project	2006/07	2007/08	2008/09
0406	Compliance inspections	\$49,371	\$49,832	\$52,561
0740	Operations	\$76,498	\$75,686	\$80,407
0370	Trend monitoring	\$793	\$880	\$2,507

PROGRESSIVE CONTROL PROGRAMME

4.2.1 PEST PLANTS

Nassella tussock *Nassella trichotoma*

Benefit	Maintain or improve regional production values.
Objective	Over the duration of the Strategy, progressively reduce the population of nassella tussock within the Canterbury region.
Principal measures	Rules place responsibilities on landowners and occupiers to undertake control. ECan has mapped land susceptible to nassella tussock, and places an emphasis on regulation and monitoring (searching properties).
Targets	The density of nassella tussock plants is decreasing on a rolling average, calculated over a 5 year period.
Outputs	<ol style="list-style-type: none"> 1. All known nassella sites outside of the Hurunui District and 40% of the properties in the Hurunui District with known infestations of Nassella tussock are inspected annually. 2. Land that is highly susceptible to infestation from Nassella tussock is identified and searched on 20% of land by 30 June 09. 3. A report on trends in incidence of nassella tussock is completed by 30 June annually.
RPMS Rule 6.2.5	<ol style="list-style-type: none"> a. No person shall sell, propagate or distribute any total control pest plants or part thereof. b. Land occupiers shall, on all the land they occupy, complete a control programme to prevent Nassella tussock plants from seeding by: <ol style="list-style-type: none"> (i) 31 October every year within the area delineated on Map 1 contained in Appendix 3 of the Strategy; or (ii) 30 September each year in all other parts of the Canterbury region. <p>Land occupiers and other persons shall not sell, propagate or distribute any nassella tussock plant or part thereof.</p> <p>An exemption to any of the above rules may be sought by any person in accordance with the procedures set out in Chapter 12 of the Strategy.</p>

Code	Project	2006/07	2007/08	2008/09
0401	Compliance inspections	\$429,385	\$441,737	\$493,545
0371	Population trend monitoring	\$44,769	\$42,831	\$46,389

CONTAINMENT CONTROL PROGRAMME

PEST ANIMALS

Rabbit *Oryctolagus cuniculus*

Benefit	Maintain or improve regional production and soil values.
Objectives	Over the duration of the Strategy, achieve rabbit densities not exceeding Level 3 on the Modified Mclean Scale.
Targets	Maintain targeted densities of rabbits.
Principal measures	ECan places an emphasis on regulation and monitoring. Landowners and occupiers are required to undertake control, except on Banks Peninsula, where control is carried out under a rating pool system.
Outputs	Properties are inspected in accordance with an inspection programme. A report on spring rabbit population trends is completed by 28 February each year.
RPMS rules 7.4.5	<p>a) Land occupiers shall keep rabbit densities on the land that they occupy at or below Level 3 on the Modified McLean Scale.</p> <p>b) No person shall discharge a firearm at or on a property for which a shooting prohibition has been set and publicly notified for the property.</p> <p>c) Land occupiers shall not use or allow the use of aurally applied sodium monofluoroacetate (1080) on the land that they occupy where aurally-applied sodium monofluoroacetate (1080) has been used on that land within the previous three years.</p> <p>d) Land occupiers shall keep, and make available to Environment Canterbury upon request, records in writing of the use of ground-applied 1080 for rabbit control on the land that they occupy, recording:</p> <ul style="list-style-type: none"> (i) the location of the land on which 1080 was applied (ii) the date 1080 was applied (iii) the quantity of 1080 that was used (iv) the type of bait that was used.

Code	Project	2006/07	2007/08	2008/09
410	Compliance inspections	\$313,244	\$364,455	\$366,663
0374/0414	Trend monitoring/population structure	\$86,411	\$90,625	\$93,957
0720	Pest control – rating districts	\$45,568	\$40,712	\$79,689

Bennett's wallaby *Macropus rufogriseus*

Benefit	To maintain or improve regional biodiversity values by containing Bennett's wallaby to a feral range.
Objectives	<ol style="list-style-type: none"> 1. Prevent the establishment of Bennett's wallaby populations outside of the Bennett's wallaby Containment Area. 2. Ensure Bennetts wallaby densities do not exceed Level 3 on the Guilford Scale on land within the Bennetts wallaby Containment Area (Map 2 Appendix 4).
Principal measures	ECan places emphasis on monitoring (searching properties) outside the feral range and regulation inside the feral range.
Targets	<ol style="list-style-type: none"> 1. Bennett's wallabies are contained to the feral range. 2. Bennett's wallaby densities are maintained at or below target levels.
Outputs	<ol style="list-style-type: none"> 1. A report on Bennett's wallaby population trends is completed by 30 June annually. 2. A report on monitoring outside the feral range is completed by 30 June annually. 3. All properties are inspected in accordance with an inspection programme. 4. Bennett's wallabies reported outside the feral range are destroyed where technically feasible.
RPMS rules 7.2.5	<ol style="list-style-type: none"> 1. Within the Bennett's wallaby Containment Area shown on Map 2 of the Strategy, land occupiers shall keep Bennett's wallaby densities at or below Level 3 on the Guilford Scale on the land that they occupy. 2. Land occupiers shall notify Environment Canterbury in writing of the presence of Bennett's wallabies on the land that they occupy where that land is outside the Containment Areas shown in Maps 2. The notification shall be made to Environment Canterbury within 10 working days of the land occupier becoming aware of, or being advised of, the presence of Bennett's wallabies on the land that they occupy.

Code	Project	2006/07	2007/08	2008/09
0413	Compliance inspections	\$69,431	\$60,505	\$60,202
0375	Trend monitoring	\$13,941	\$14,267	\$17,015

4.3.2 PEST PLANTS

Broom *Cytisus scoparius*, *Cytisus multiflorus*, *Teline monspessulana*

Gorse *Ulex europaeus*

Nodding Thistle *Carduus nutans*

Ragwort *Senecio jacobaea*

Variegated thistle *Silybum marianum*

Benefit	Maintain or improve regional production values.
Objectives	Over the duration of the Strategy, prevent gorse and broom from infesting land free of gorse and broom.
Principal measures	<p>ECan places emphasis on regulation, partnerships and monitoring, and will undertake investigations into the development and application of new control tools.</p> <p>For nodding thistle, ragwort and variegated thistle, in all districts except Ashley, ECan will act on complaints, follow up on reports and release bio-control agents. In the Ashley District, the emphasis will be on regulation.</p> <p>Land occupiers are required to undertake control to meet Strategy requirements.</p>
Targets	1. Land free from gorse and broom as at 1 July 2005, remains free of gorse and broom by 2015.
Outputs	<p>1. 20% of properties known to have Containment Control pest plants are inspected per annum (100% over 5 years).</p> <p>2. A report on a case study of using satellite surveillance technology to monitor areas monitored by gorse and broom by 30 June 2009.</p>
<p>RPMS rules 7.5.5</p> <p>7.7.5, 7.8.5, 7.9.5</p> <p>7.6.5, 7.7.5, 7.8.5, 7.9.5</p>	<p>1. Land occupiers shall eliminate gorse and broom infestations on land that they occupy</p> <p>(a) where the gorse and/or broom covers up to 50 square metres in area and is greater than five metres from other gorse infestations exceeding 50 square metres in area on the land that they occupy.</p> <p>(b) within 10 metres of any adjoining property occupied by another land occupier where that adjoining property is clear of, or being cleared of, gorse and/or broom infestations within 10 metres of the boundary between the properties.</p> <p>a) Land occupiers shall eliminate nodding thistle, variegated thistle and ragwort infestations</p> <p>i) on land that they occupy within 40 metres of any irrigation race or stockwater race; and</p> <p>ii) on the land that they occupy within 40 metres of any adjoining property occupied by another land occupier where that adjoining property is clear of or being cleared of the pest within 40 metres of the boundary between the properties.</p> <p>b) Land occupiers and other persons shall not sell, propagate or distribute any pest or part thereof.</p>

Code	Project	2006/07	2007/08	2008/09
0405	Compliance inspections	\$347,653	\$356,231	\$406,344
0741	Biological control – rating districts	\$32,146	\$35,808	\$41,497
0750	User pays	\$7,565	\$7,304	\$5,504
0372	Trend monitoring	\$30,718	\$31,442	\$30,131

4.4 BIODIVERSITY PEST PROGRAMME

Biodiversity pests and other organisms to be controlled can have a high impact on biodiversity values. Other organisms to be controlled are not declared pests, but are recognised as threats to biodiversity. The Strategy objective, in general, is to protect High Value Environmental Areas (HVEA). A process for identifying HVEA is outlined in the Strategy.

Table 4.1 Biodiversity pest plants and animals

Animals		Plants	
Possum	<i>Tichosurus vulpecula</i>	Banana passionfruit	<i>Passiflora spp.</i>
Feral Cat	<i>Felis catus</i>	Bell heather	<i>Erica cinerea</i>
Stoat	<i>Mustela furo</i>	Boneseed	<i>Chrysanthemoides monilifera</i>
Ferret	<i>Mustela erminea</i>	Darwin's barberry	<i>Berberis darwinii</i>
Weasel	<i>Mustela nivalis</i>	Egeria	<i>Egeria densa</i>
Feral goat	<i>Capra hircus</i>	Hieracium	<i>Hieracium spp.</i>
German wasp	<i>Vespula germanica</i>	Lagarosiphon	<i>Lagarosiphon major</i>
European wasp	<i>Vespula vulpecula</i>	Old Man's Beard	<i>Clematis vitalba</i>
		Phragmites	<i>Phragmites australis</i>
		Lodgepole pine	<i>Pinus contorta</i>
		Wild thyme	<i>Thymus vulgaris</i>

Table 4.2 Other organisms to be controlled

Animals		Plants	
Feral pig	<i>Sus scrofa</i>	Ash	<i>Fraxinus excelsior</i>
Red deer	<i>Cervus elaphus</i>	Holly	<i>Ilex aquifolium</i>
Fallow deer	<i>Dama dama</i>	Red-flowering currant	<i>Ribes sanguineum</i>
Magpie	<i>Gymnorhina tibicen</i>	Sycamore	<i>Acer pseudoplatanus</i>
		Hieracium	<i>Hieracium spp.</i>
		Boneseed	<i>Chrysanthemoides monilifera</i>
		Lodgepole pine	<i>Pinus contorta</i>
		Corsican pine	<i>Pinus nigra</i>
		Scots pine	<i>Pinus sylvestris</i>
		Mountain pine	<i>Pinus mugo</i>
		Douglas fir/Oregon	<i>Pseudotsuga menziesii</i>
		Larch	<i>Larix decidua</i>

Code	Project	2006/2007	2007/08	2008/09
0430	Operations – pest animals	\$209,645	\$239,000	\$236,936
0431	Operations – pest plants	\$156,126	\$152,740	\$155,630
0433	Monitoring	\$37,522	\$37,522	\$36,565

4.4.1 PEST ANIMALS

Possum *Trichosurus vulpecula*

Feral cat *Felis catus*

Mustelid *Mustela furo*, *Mustela erminea*, *Mustela nivalis*

Feral goat *Capra hircus*

Wasp *Vespula spp.*

Benefit	Maintain or improve biodiversity values in targeted High Value Environmental Areas.
Objectives	Over the duration of the Strategy, reduce possums, mustelids, feral cats and goats aintain at, levels sufficient to ensure that biodiversity values are protected in targeted areas of the Canterbury region.
Targets	<ol style="list-style-type: none"> 1. Biodiversity values are improved or maintained in high value environmental areas where possum, mustelid and feral cat control is undertaken. 2. Feral goats are eradicated from Banks Peninsula.
Principal measures	ECan places emphasis on identifying high value environmental areas, facilitating partnerships, and undertaking control at targeted sites.
Outputs	<ol style="list-style-type: none"> 1. Control of possums, mustelids, and feral cats is maintained at Burkes Pass to protect the Knobbled weevil, at Kakahu/ Hanging Rock, Opuha riverbed to protect Long tailed bat, in the Ashburton riverbed to protect ground nesting native birds (Wry bill, Black fronted tern), on the Port Hills to protect and enhance native flora and fauna, on Banks Peninsula to protect White flippered penguin and at Kaikoura to protect Hutton's shearwater. 2. Control of feral goats on Banks Peninsula is maintained.

4.4.2 PEST PLANTS

Phragmites *Phragmites australis*

Benefit	Maintain or improve regional biodiversity values in targeted High Value Environmental Areas.
Objectives	Over the duration of the Strategy, protect biodiversity values in the Canterbury Region by eradicating all phragmites in the Canterbury Region.
Principal measures	ECan will undertake control, monitoring and enforcement.
Targets	1. Phragmites is eradicated from Canterbury by 2015
Outputs	<ol style="list-style-type: none"> 1. All land infested with Phragmites is inspected. 2. Control programmes are facilitated or undertaken.
RPMS Rule 8.12.5	Land occupiers shall not sell, propagate or distribute any Phragmites or part thereof.

Wild thyme *Thymus vulgaris*

Benefit	Maintain or improve regional biodiversity values in targeted High Value Environmental Areas.
Objectives	1. Over the duration of the strategy, protect the biodiversity values of the Canterbury Region by: (i) eradicating all wild thyme plants, prior to seed set each year, within the zones identified on Map 5 in Appendix 10, and (ii) Preventing the establishment of wild thyme outside of the zones identified on Map 5 in Appendix 10.
Principal measures	ECan will undertake monitoring (searching properties) and control.
Outputs	1.Areas of wild thyme are inspected and controlled annually. 2.ECan will provide advice and education to raise public awareness and encourage the community to report the presence of wild thyme.
RPMS rule 8.12.5	Land occupiers and other persons shall not sell, propagate or distribute any <i>Thymus vulgaris</i> plants or parts thereof.

Bell heather *Erica cinerea*

Benefit	Maintain or improve regional biodiversity values in targeted High Value Environmental Areas.
Objectives	Over the duration of the Strategy, reduce the extent of bell heather by 75 % to ensure that biodiversity values in HVEA are protected in the Canterbury region.
Targets	Progressively control bell heather to reduce its extent as at 1 July 2005 to 75% by 1 July 2015.
Principal measures	ECan places emphasis on monitoring (searching properties) and control.
Outputs	Inspect and control all Bell heather on known sites in the Hunters Hills.
RPMS rule 8.5.5	Land occupiers and other persons shall not sell, propagate or distribute any Bell heather plants or parts thereof.

Boneseed *Chrysanthemoides monilifera*

Benefit	Maintain or improve biodiversity values in targeted High Value Environmental Areas.
Objectives	Over the duration of the strategy, protect the biodiversity values in the Canterbury Region by: (i) Eradicating all boneseed plants, prior to seed set each year, from land outside of the Port Hills Zone, and (ii) Reducing by 20% the area of land infested with boneseed within the Port Hills Zone identified on Map 3 in Appendix 8.
Principle measures	ECan places emphasis on total control outside the Port Hills and control, including biological control on the Port Hills.
Targets	1. Boneseed is reduced by 20% of land infested as at 2005, within the Port Hills zone by 2015. 2. Boneseed is absent from all land outside the Port Hills zone by 2015.
Outputs	1. 95% all land outside the Port Hills zone infested with boneseed, is controlled. 2. Eradication programmes are initiated inside the Port Hills zone.
RPMS rule	N/A

Egeria *Egeria densa*
Lagarosiphon *Lagarosiphon major*

Benefit	Maintain or improve biodiversity values in targeted High Value Environmental Areas.
Objectives	Contain the spread of Egeria and Lagarosiphon.
Principle measures	ECan places emphasis on inspection of known sites, and monitoring (searching properties) in areas free of the pest. Control will be undertaken in areas outside the known zones.
Targets	1. <i>Egeria</i> and <i>Lagarosiphon</i> are absent from waterways free from infestations as at 1 July 2005.
Outputs	1. Known sites are searched for the presence of aquatic pests. 2. Control operations are facilitated or initiated as required. 3. 60% of premises used for propagation, sale or distribution of plants are inspected annually, including all premises that did not comply in the previous year.
RPMS rules 8.10.5 8.8.5	Land occupiers and other persons shall not sell, propagate or distribute any <i>Egeria densa</i> or <i>Lagarosiphon major</i> plants or parts thereof.

Old Man's Beard *Clematis vitalba*

Benefit	Maintain or improve regional biodiversity values in targeted High Value Environmental Areas
Objectives	Over the duration of the Strategy, reduce Old Man's beard (OMB) populations to ensure that biodiversity values in HVEA are protected in the Canterbury region.
Targets	1. All land of high biodiversity value threatened by Old Man's beard is inspected over a 5 year period. 2. The biodiversity value of HVEA within which pests control is undertaken is maintained or improved (see monitoring).
Principle measures	ECan places emphasis on monitoring (searching properties), regulation and control in HVEA adversely affected by Old Man's beard. In other areas ECan will act in response to complaints. Landowners are required to undertake control.
Outputs	1. 40% of land infested with OMB that is a threat to biodiversity is inspected annually. 2. Control is undertaken on at least two HVEA sites.
RPMS rules 8.11.5	a) Land occupiers shall eliminate (prevent seeding of) Old Man's beard infestations that cover up to 100 square metres in area and are greater than 20 metres from other [pest] infestations exceeding 100 square metres in area on the land that they occupy. b) Land occupiers shall eliminate Old Man's beard infestations on the land that they occupy within 20 metres of any adjoining property occupied by another land occupier where that adjoining property is clear of, or being cleared of, [pest] infestations within 10 metres of the boundary between the properties. c) Land occupiers and other persons shall not sell, propagate or distribute any Old Man's beard plants or parts thereof.

Code	Project	2006/07	2007/08	2008/09
0408	Compliance inspections	\$238,447	\$254,313	\$275,552

Hieracium *Hieracium sp.*

Benefit	Maintain or improve biodiversity values of grasslands.
Objectives	Over the duration of the Strategy, protect biodiversity values in targeted areas of the Canterbury Region by reducing the area infested with Hieracium by 20% at 10 sites.
Principle measures	The emphasis is on control partnerships in targeted sites.
Targets	Hieracium is reduced in extent by 20% within 10 HVEA.
Outputs	A control programme is initiated.
RPMS rules	N/A

Banana passionfruit *Passiflora spp.*

Darwin's barberry *Berberis darwinii*

Benefit	Maintain or improve biodiversity values.
Objectives	Reduce the pest to levels sufficient to ensure that biodiversity values are protected in targeted areas of the Canterbury region.
Principle measures	ECan places emphasis on mapping the extent of infested HVEA and facilitating partnerships to undertake control.
Targets	1. The biodiversity value of HVEA within which pest control is undertaken is maintained or improved (see monitoring). 2. All premises used for propagation, sale or distribution of plants are inspected.
Outputs	1. A survey mapping the distribution of banana passionfruit and Darwin's Barberry is initiated. 2. 60% of premises used for propagation, sale or distribution of plants are inspected annually, including all premises that did not comply in the previous year. 3. Two control programmes are completed in targeted areas.
RPMS rules 8.4.5, 8.7.5	Land occupiers and other persons shall not sell, propagate or distribute any Banana passionfruit or Darwin's barberry plants or parts thereof.

Lodgepole pine *Pinus contorta*

Wilding conifers *Pinus nigra, Psudotsuga menziesii, Larix decidua, Pinus sylvestris, Pinus mugo*

Benefit	Maintain or improve regional biodiversity values.
Objectives	Over the duration of the strategy, protect biodiversity values by eradicating all self-sown wilding conifers, prior to seed dispersal, in targeted HVEAs.
Principle measures	ECan places emphasis on control and partnerships.
Targets	The biodiversity value of HVEA within which pest control is undertaken is maintained or improved.
Outputs	Control in the Dobson valley and the Rakaia, Waimakariri and Hurunui Catchments is undertaken.
RPMS rules	N/A

Code	Project	2006/07	2007/08	2008/09
0432	Wilding conifer control	\$176,754	\$175,484	\$173,590

4.5 COMMUNITY INITIATIVE PROGRAMME

Community Initiative Programmes (CIPs) focus on the control of widespread pests and other organisms to be controlled. A CIP is, by definition, initiated and driven by the community, and pest control is the responsibility of landholders. The type and duration of support given by ECan is considered on a case-by case basis following criteria laid out in the Strategy (pg 19). ECan may provide financial support to Council adopted CIP's, and requires development of an action plan including a description of the pest species, landowner obligations, timing of control, method of control, costs and monitoring.

The Banks Peninsula Pest Liaison Committee has initiated a CIP for possum control over the entire Banks Peninsula. This programme was adopted by Council and is supported in part through general rates.

Benefit	Maintain or improve the biodiversity and production values on Banks Peninsula.
Objectives	1. Support the AHB surveillance programme for Tb control. 2. Maintain possums at < 10% residual trap catch within HVEA.
	Possum control occurs over 25% of Banks Peninsula every year for 4 years.
Principal measures	Control operations.
Outputs	A report on the possum control programme is made annually to the Banks Peninsula CIP steering group.
RPMS rule	N/A

Code	Project	2006/07	2007/08	2008/09
04340	CIP	\$90,713	\$128,859	\$106,052

PART V: OTHER PEST SERVICES

ECan undertakes a number of other pest services outside the RPMS to ensure that locally, regionally, and nationally, control is integrated at a regional scale.

National biosecurity and pest management

Biosecurity New Zealand (the Ministry of Agriculture and Forestry, MAF) coordinates national surveillance and incursion response for pests currently not present in New Zealand (e.g. asian fan worm), for pests new to New Zealand (e.g. sea squirt), and leads National Interest Pest programmes (Table 5.1). ECan receives funding from Biosecurity New Zealand to undertake surveillance of unwanted organisms listed in the National Plant Pest Accord.

Table 5.1 National Interest pest programme priorities

Scientific Name	Common Name
<i>Salvinia molesta</i>	salvinia
<i>Eichhornia crassipes</i>	water hyacinth
<i>Sorghum halapense</i>	Johnson grass
<i>Moraea flacida</i> (syn. <i>Homeria collina</i>)	Cape tulip
<i>Ehrharta villosa</i>	pyp grass
<i>Phragmites australis</i>	phragmites
<i>Hydrilla verticillata</i>	hydrilla
<i>Ceratophyllum demersum</i>	hornwort
<i>Bryonia cretica</i> subsp. <i>dioica</i>	white bryony
<i>Tricoglossus haematodus</i>	rainbow lorikeet
<i>Zizania latifolia</i>	Manchurian wild rice

National Pest Management Strategies

The Animal Health Board has reviewed the administrative structure of the National Pest Management Strategy. As a result, ECan's involvement in managing possums as a vector for Tb has been reduced. Pest control responsibilities will be transferred over the next year.

National Pest Plant Accord

Under the National Plant Pest Accord regional councils inspect nurseries and other outlets to prevent the sale, propagation and distribution of an agreed list of pest plants, which are given a legal status as Unwanted Organisms. The list is periodically updated and posted on <http://www.biosecurity.govt.nz/nppa>.

Unwanted organisms

Under Section 100 of the Biosecurity Act, ECan undertakes surveillance and inspections and can initiate a regional incursion response by eradicating Unwanted Organisms in restricted distributions within the region without the pest being listed in the Strategy.

Code	Project	2006/07	2007/08	2008/09
0751	Section 100	\$5,346	\$19,115	\$19,558

Policy and planning

The RPMS (2005-2015) is reviewed every 5 years. During the review period, we will be asking for your views by making a submission, and/or attending public information days and hearings. Every year, the Operational Plan is reviewed, and an Operational Report prepared to keep track of progress in implementing the Strategy.

Code	Project	2006/07	2007/08	2008/09
0614	Policy and planning	\$151,477	\$176,569	\$211,893