

Regional Pest Management Strategy for Marlborough

Operational Plan Report
2010/2011



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REGIONAL PEST MANAGEMENT STRATEGY OPERATIONAL PLAN REPORT 2010/2011

1. Introduction

The Regional Pest Management Strategy is known as the “Regional Pest Management Strategy for Marlborough” (the Strategy). It was made operative on 2 July 2007 following the review and amendment of the existing Strategy which expired on 3 September 2006.

The purpose of the Strategy is to provide a framework for the efficient and effective management or eradication of pests and unwanted organisms so as to:

- Minimise actual and potential adverse and unintended effects associated with the targeted pests; and
- Maximise the effectiveness of individual pest management through a regionally co-ordinated approach.

The Strategy classifies a number of plants and animals in the region as pests and specifies the management regime for each pest. For each pest, the management programme sets out the effects of the pest to be addressed, the objective to be achieved, the main methods to achieve the objective and the rules relating to each pest.

1.1. Purpose of Operational Plan Report

This Operational Plan Report has been prepared in accordance with section 85 of the Biosecurity Act 1993, and identifies and outlines the nature and scope of activities the Marlborough District Council has undertaken in the implementation of its Strategy for 2010/2011.

Reports on performance targets are included in this Operational Plan Report. This will enable key stakeholders to judge the performance of Marlborough District Council as the management agency for the Strategy.

1.2. Linkages

The Operational Plan is integrated, as far as possible, with Marlborough District Council’s Regional Policy Statement, Resource Management Plans and the Long Term Council Community Plan (LTCCP). The LTCCP provides an overview of all Marlborough District Council functions, including pest management and biosecurity activities for 2010/2011.

This Operational Plan Report should also be read in conjunction with the Regional Pest Management Strategy for Marlborough 2007.

2. Pest Plant Management Programmes

2.1. Introduction

The Regional Pest Management Strategy for Marlborough classifies 33 plant and four animal species as pests because they cause or are capable of causing, a significant negative impact on Marlborough's economy and/or environment. The Strategy separates individual pests into classifications⁽¹⁾, which require various levels of intervention.

The management regime for each pest applies to all or a specified part of the land within the district. In most situations, the obligation lies with the land occupier to actually carry out the control of these pests. The only exception is for pests classified as 'Total Control' where either the Marlborough District Council or the Department of Conservation will implement control programmes directly.

Marlborough District Council is primarily responsible for the co-ordination of pest control programmes, ensuring occupiers comply with their obligations, carrying out surveillance to determine new infestations of pests and educating and advising land occupiers as to the most appropriate form of control for each pest.

2.2. Pest Plant Status

The table below summarises the district's pest plants and their designated status as classified in the Strategy.

Plant Pest Species	Status ⁽¹⁾	Comments
African Feather Grass	TC	Marlborough District Council initiative. These pest plants are limited in their distribution, but have the potential to severely affect either pastoral farming or cereal harvesting and/or environmental values in the district. Implementation of these programmes is delivered by Marlborough District Council. The cost of control for these pest plants is shared between the Marlborough District Council (75%) and the land occupier (25%) where the infestation occurs.
Bathurst Bur	TC	
Bur Daisy	TC	
Saffron Thistle	TC	
Giant Needlegrass	TC	
Chinese Pennisetum	TC	
Parrots Feather	TC	
Boneseed	TC	Marlborough District Council/Department of Conservation joint initiative. These pest plants are limited in their distribution, but have the potential to invade large areas of the district's indigenous forest, scrub or waterways. Implementation of these programmes is delivered by Marlborough District Council/Department of Conservation. The cost of control for these pest plants is shared between the Department of Conservation and the Marlborough District Council.
Climbing Spindleberry	TC	
Eel Grass	TC	
Madeira Vine	TC	
Moth Plant	TC	
Spartina	TC	
Evergreen Buckthorn	TC	
Senegal Tea	TC	
Cathedral Bells	TC	

⁽¹⁾ Refer to the Regional Pest Management Strategy for Marlborough definitions of Total Control (TC), Containment Control (CC) and Surveillance (S)

Plant Pest Species	Status ⁽¹⁾	Comments
Nassella Tussock	CC	Land occupiers are required to annually destroy all plants on their properties before they produce seed.
Chilean Needlegrass	CC	Land occupiers are required to annually destroy plants on their properties before they produce seed.
White-Edged Nightshade	CC	
Kangaroo Grass	CC	The degree of intervention required by land occupiers to manage these pest plants depends on the classification of each property. The control requirements range from the destruction of all plants on fringe properties to a boundary control regime on core properties.
Broom and Gorse	CC	Land occupiers are required to progressively control broom in the Upper Awatere River and broom and gorse in the Upper Wairau River catchments. All land occupiers are required to destroy all broom and gorse plants within 10 metres of their property boundary if the adjacent property is free of this pest plant
Ragwort	CC	Land occupiers are required to destroy Ragwort plants within 50 metres of their property boundary if the adjacent property is free of this pest plant.
Nodding Thistle	CC	Land occupiers are required to destroy Nodding Thistle plants within 100 metres of their property boundary if the adjacent property is free of this pest plant.
Contorta Pine	CC	Land occupiers are required to destroy all plants, with the exception of properties located directly adjacent to the Wye Reserve.
Reed Sweet Grass	CC	Marlborough District Council is responsible for managing this pest plant.
Blue Morning Glory	S	The key objective for management of these pest plants is to monitor distribution, the impacts and the spread of these organisms.
Climbing Asparagus	S	
Egeria	S	
Cotton Thistle	S	
Kahili Ginger and Yellow Ginger	S	
Lagarosiphon	S	
Purple Loosestrife	S	

⁽¹⁾ Refer to the Regional Pest Management Strategy for Marlborough definitions of Total Control (TC), Containment Control (CC) and Surveillance (S)

2.3. Pest Animal Status

The table below summarises the district's pest animals and their designated status as classified in the Regional Pest Management Strategy for Marlborough.

Animal Pest	Status ⁽¹⁾	Comments
Rooks	TC	A small number of rooks reside in Marlborough and, if allowed to build up in numbers, they are capable of causing significant damage to cereal crops and pasture. Marlborough District Council will carry out rook control with the aim of eradication.
Rabbits	CC	High rabbit populations affect soil and water quality and have a detrimental impact on economic production and increase the risk of soil erosion. It is Marlborough District Council's responsibility to ensure land occupiers comply with their obligation to control rabbits, co-ordinate and facilitate control activities, carry out rabbit population trend monitoring and offer advice on control.
Possoms	CC	Possoms cause extensive defoliation of native forest and predate on ground and tree nesting native birds and their eggs. At present in Marlborough there are no possums on our offshore islands. A rule in the Strategy prohibits the release of possums onto any offshore island in the Marlborough Sounds.
Darwin Ants	S	The key objective for management of these pests is to monitor their distribution, their impacts and the spread of these organisms.

⁽¹⁾ Refer to the Regional Pest Management Strategy for Marlborough definitions of Total Control (TC), Containment Control (CC) and Surveillance (S)

3. Total Control Pest Objectives and Performance Targets

Objective		
To eradicate Total Control pest plants from Marlborough		
Performance Targets	Action taken to meet Target	Achievements
<p>3.1 Complete control operations at 100% of known sites by 30 June 2011.</p> <p>3.2 Carry out not less than 360 hours of surveillance for total control pest plant spread outside known sites.</p> <p>3.3 Complete surveillance programmes for total control pest plants by 30 June 2011.</p> <p>3.4 No new infestations resulting from known sites of these pest plants established in Marlborough.</p> <p>3.5 A measured decline to <5000 pest plants destroyed over all sites by June 2011.</p> <p>3.6 Recover by 30 June 2011, 25% of all costs, for those total control pest plants identified in the Marlborough District Council initiative.</p>	<ul style="list-style-type: none"> • Plan, implement and manage services required to carry out control operations. • Carry out surveillance work for each pest based on risk. • Determine the level of annual surveillance for each pest based on risk. • Record and maintain plant pest abundance and distribution data to enable trend monitoring over the duration of the Strategy. • Recover 25% of the control costs. 	<p>All active total control pest plant sites were visited and any plants found were destroyed with two exceptions. Those sites where the target weed continued to germinate are visited regularly through the season until all germinating plants for the season have been destroyed (N.B Section 12 contains details of plant numbers destroyed and shows population trends over time). The two exceptions were a property in the Marlborough Sounds that would not allow access for Department of Conservation staff to control Climbing Spindleberry and Evergreen Buckthorn.</p> <p>241.25 hours of surveillance work was carried out for total control pest plants outside known sites.</p> <p>A total of 62 new sites of a total control pest plant were found. This includes 59 new sites of Moth Plant, two sites of Chinese Pennisetum and one new site of Evergreen Buckthorn. A large number of the 59 new sites of Moth Plant were found as a result of information from the public. Both of the new sites of Chinese Pennisetum that were found were on properties that have been inspected many years ago that were thought to be free of this weed.</p> <p>A total of 8791 pest plants were destroyed over all sites. This figure was made higher than envisaged, due to the excellent public response to Moth Plant publicity, forest harvesting opening up a seed bed for Giant needle grass germination and a wet spring “explosion” of cotton thistle seed germination. This figure does not include Eel Grass, Spartina Grass or Parrots Feather as they are aquatic or semi-aquatic and it is difficult to count the number of these plants controlled due to their growth habit.</p> <p>The Marlborough District Council has recovered, where appropriate, 25% of the costs incurred when controlling these pest plants from landowners where infestations occur.</p>

Objective		
To eradicate rooks in Marlborough.		
Performance Targets	Action taken to meet Target	Achievements
3.7 Annually, monitor all historical rookeries in Marlborough by 30 November 2011.	<ul style="list-style-type: none"> Actively seek public and land occupier reports of sightings of rooks. 	All 16 historical rookeries were surveyed with no rook activity sighted.
3.8 Implement a control programme if technically feasible by 30 June 2011.	<ul style="list-style-type: none"> Carry out an annual rook survey and report on population trends. Plan and implement a control programme if technically feasible and conditions are suitable. 	<p>In response to an advertisement for public sightings, six rooks were reported as feeding in a paddock near St Oswalds church, Wharanui. Subsequent surveillance found they were nesting in nearby trees.</p> <p>As a result, one control programme for rooks was required, but before the control was able to be achieved as weather events destroyed the rookery and the rooks absconded.</p>

4. Containment Control Pests

Objective		
To prevent any increase in the distribution and density of these pest plants and reduce infestation levels where possible.		
Performance Targets	Action taken to meet Target	Achievements
<p>4.1 Prepare and distribute pest plant control programmes to land occupiers where active infestations of pest plants occur by 30 June 2011.</p> <p>4.2 Complete compliance inspections of properties issued with a control programme for each pest plant by 30 June 2011.</p> <p>4.3 85% land occupier compliance with the requirements of the Strategy rules by 30 June 2011.</p> <p>4.4 <50 land occupiers issued with notices of direction under the non compliance requirements of the Strategy rules</p> <p>4.5 Undertake not less than 70 hours of surveillance for each pest based on risk by 30 June 2011.</p> <p>4.6 Complete planned control operations for Reed Sweet Grass by 30 June 2011.</p> <p>4.7 Respond to all complaints with regard to pest plants within five working days.</p> <p>4.8 Undertake to develop Chilean Needlegrass management plans, on request from occupiers by June 2011.</p>	<ul style="list-style-type: none"> • Annually prepare control programmes for all land occupiers where an active infestation of a pest plant occurs. • Carry out inspections or verify compliance, for each pest plant. • Carry out enforcement action where required to ensure that occupiers meet their obligations to control pest plants. • Plan, implement and manage services required to carry out control operations. • Carry out surveillance work for pests based on risk. • Any spread of pest plants to be recorded by GPS or field map notation and captured on Council GIS for later mapping and area calculation. • Implement Reed Sweet Grass control programme on D'Urville Island. • Respond to all requests to develop management plans. • Plan and target specific areas of control where Pinus Contorta has spread from the containment area 	<p>Control programmes were issued for 486 properties with infestations of containment control pest plants. The following number of pest control programmes by species were issued:</p> <p>Nassella Tussock - 366 Chilean Needlegrass - 76 Kangaroo Grass - 18 White-Edged Nightshade - 4 Broom and Gorse containment control area (Upper Wairau) - 10 Broom containment control area (Upper Awatere) - 12</p> <p>Of the 486 properties issued with a control programme, 424 (87%) were physically inspected to ensure compliance with the Strategy. A number of other properties were deemed to be compliant and were not prioritised for an inspection as a result of assessing historical compliance and landowner return forms.</p> <p>Only 51 or 67% of the properties issued with a control programme for Chilean Needlegrass control were inspected this season due to resource constraints. 24 occupiers were issued with a Notice of Direction under the RPMS. Of these 24 occupiers, five occupiers failed to comply with their Notice of Direction and were issued with a Notice of Intention to do Work on Default. Default work was carried out on three of these properties. The remaining two achieved control activities before the default work was programmed to start.</p>

Objective		
To prevent any increase in the distribution and density of these pest plants and reduce infestation levels where possible.		
Performance Targets	Action taken to meet Target	Achievements
4.9 Complete planned control operations for Pinus Contorta by 30 June 2011.		<p>A total of 604 hours of surveillance work was carried out by council officers. This was made up of 320 hours for Nassella Tussock, 241.5 hours for Chilean Needlegrass, 39 hours for Kangaroo Grass and 4 hours for White-Edged Nightshade. Council continues to record any new sites of containment control pest plants found during inspection work and have updated any known pest infestation maps where required. A total of 54,085 hectares of Nassella Tussock infestation and 2736 hectares of Chilean Needlegrass is recorded in the district.</p> <p>Two control operations were planned and subsequently undertaken for Pinus Contorta on land adjacent to the Wye Reserve containment area. The first operation targeted pushing the extent of larger wildings back toward the containment area. The second operation targeted substantial re-growth in areas controlled five years prior. A total of 2319 hours of work was undertaken by contractors.</p> <p>Significant changes have been made to the mapping systems used to record new sites and Council now is recording the distribution data for a wider range of pest plant species.</p> <p>All known infestations of Reed Sweet Grass in the region were controlled this season. No new sites were found.</p> <p>In a recent survey of land occupiers with Chilean Needlegrass, the majority believed there was no benefit in developing Chilean Needlegrass management plans for their property so this has not been pursued.</p> <p>All complaints were actioned within five working days.</p>

Objective

To minimise the impacts that feral rabbits have on pasture production, crops, forestry plantations and soil conservation values in Marlborough by maintaining feral rabbit populations at levels at or below the maximum allowable level identified for the two sub-regions, the 'Upper Awatere/Clarence' and the 'Remainder of area within the District'.

Performance Targets	Action taken to meet Target	Achievements
<p>4.10 Complete initial inspections of properties identified for inspections by 30 June 2011.</p> <p>4.11 Prepare and distribute pest rabbit control programmes by 30 June 2011, to land occupiers where populations exist above the MAL.</p> <p>4.12 Complete compliance inspections of previous year's control programmes by 30 October 2011.</p> <p>4.13 Trend monitor the 12 established night count transects by 30 June 2011.</p>	<ul style="list-style-type: none"> • Identify a geographical representative sample of properties deemed 'at risk' of rabbit population increase by end March and implement an inspection regime. • Where rabbit infestations exist above the maximum allowable level issue a control programme and where possible provide an adaptive management approach to ensure the land occupier can meet their responsibilities. • Re-inspect all properties issued with a control programme to ensure compliance. • Carry out the planned population trend monitors. • Carry out serological blood sampling of rabbits, in predetermined areas, to determine RHD immunity levels. 	<p>A total of 52 properties were inspected for compliance. 37 inspections were carried out on 'new' properties while 17 were carried out on properties with existing Control Programmes. This was necessary to build landholder familiarity with new Council staff and to assess current rabbit levels.</p> <p>17 properties with 2009/10 Control Programmes were inspected for compliance. Four properties had carried out suitable control work or had a natural reduction in rabbit levels, and were compliant on inspection. The remaining 13 properties were provided extensions through to 31 March 2011 due to the unseasonably wet winter.</p> <p>Of the properties with extensions, a further seven had reduced numbers by 31 March 2011 and were deemed compliant.</p> <p>The remaining six properties have all shown vast improvements in terms on ongoing rabbit management and have reduced the extent of rabbit infestations. However, there are areas that still need further work. An approach of working with the landholders has been taken to ensure the ongoing nature of control continues. This has resulted in further extensions to complete planned control work or a property re-assessment to accurately map current areas where rabbit remain above the MAL.</p>

		<p>Confidence checks were carried out on the six properties issued with a 2010/11 Control Programme. Three of these were deemed compliant either through natural processes or control work that had been carried out. The remaining three properties still need to carry out further work to reduce rabbit numbers.</p> <p>New 2011/12 control programmes were issued to three landholders where rabbit levels were found to be above the MAL. A further two 2011/12 control programmes were issued as a result of property re-assessments.</p> <p>All 12 night-count transects were trend monitored. Trend graphs can be found in Section 12.2.</p> <p>Serological blood sampling was carried out at five sites in Marlborough. Two sites in the Upper Awatere contributed to long term monitoring. The three remaining sites selected in the Upper Awatere, Avon Valley and Wairau Valley were to assess the current immunity status. These three sites have current issues with high rabbit numbers.</p>
<p>Objective To prevent the establishment of possums on offshore islands in the Marlborough Sounds.</p>		
<p>Performance Targets</p>	<p>Action taken to meet Target</p>	<p>Achievements</p>
<p>4.14 Respond to reported sighting of possums on offshore islands within five working days.</p>	<ul style="list-style-type: none"> • Solicit public feedback on any possums sited on all offshore islands • Report all sightings to the Department of Conservation who will undertake investigations with Marlborough District Council staff in support if required. 	<p>No reports of possum activity were reported through to Council.</p>

5. Surveillance – Pests

Objective		
To monitor the distribution, the impacts and the spread of surveillance pests, fund appropriate research projects regarding surveillance pests and educate the public as to their identification and most appropriate method of control.		
Performance Targets	Action taken to meet Target	Achievements
<p>5.1 Undertake surveillance and evaluate pest distribution and impacts for Darwin Ants and other invasive ant species and report finding by 30 June 2011.</p> <p>5.2 Undertake not less than 70 hours of surveillance for pest spread, other than total control pest plants, outside known sites and evaluate pest distribution and impacts</p> <p>5.3 Update records, within five working days of finding or being informed of any plant or animal pest, while carrying out surveillance.</p>	<ul style="list-style-type: none"> • Inspect properties and/or collect information to determine pest status and identify the extent of any new incursions. • Act on feedback from the public in relation to new pest infestations or instances of any unwanted organism or potential incursion of a harmful organism. • Record pest finding on maps and data base records. • Utilise contract services to assist in the undertaking of specific surveillance for invasive ants. 	<p>Following on from the invasive ant survey of 2009/2010, Council enlisted the services of Kaitiaki O Ngahere Limited to undertake a further survey of 664 sites over Blenheim industrial area adjacent to Main Street, Blenheim. Historic Darwin Ants sites at Picton and a new survey area at Waikawa Bay marina were sampled for invasive ants. Once again Darwin Ants were evident at previously known sites. No new sites for Argentine ants were able to be confirmed. The Havelock Camping Ground (Council owned) was controlled for a second time. A re-inspection post control showed that a high level of control was achieved. This area will be surveyed again by December 2011 to ascertain the need for further control.</p> <p>All ant specie surveillance and location sites have been recorded on Council's GIS database, and the data has been forwarded to Landcare Research to enable an update of the national database and pest spread maps.</p> <p>Council officers carried out 74 hours of pest plant surveillance work. This was made up of 34 hours for Woolly Nightshade, 31.5 hours for Cotton Thistle and 8.5 hours for Purple Loosestrife. Information on all three species is being collected for the next RPMS review.</p>

6. Ecological Threat Programme

Objective		
<ul style="list-style-type: none"> • Encourage community initiatives and site led management programmes. • Identify sites with significant ecological value where the reduction of a range of ecological pest threats would be effective in protecting those values. • Provide information material and advice on impacts, threats and control options. 		
Performance Targets	Action taken to meet Target	Achievements
<p>6.1 To continue to support land occupiers with pest/weed work on prioritised significant natural area sites.</p> <p>6.2 To encourage community led pest management initiatives.</p> <p>6.3 To further investigate options for implementing control of wilding exotic trees on private land on D'Urville Island</p>	<ul style="list-style-type: none"> • Marlborough District Council has a voluntary land assistance programme applying to significant natural areas sites, which includes pests/weed threat works. • The Marlborough District Council is developing an active programme to support community led pest management initiatives which will include not less than two targeted meetings/workshops to follow up the public seminars held in June 2010. • Circulate a management plan to D'Urville Island landowners and discuss control options. 	<p>Council is involved in assisting landowners to restore several significant natural areas that require plant and animal pest control work as part of this restoration. These projects include two wetlands where large scale willow and old mans beard control have been carried out and two intensive animal pest control programmes in Pelorus Sound. Council has also contributed on a smaller scale to two weed control projects led by the QEII Trust in existing QEII covenant areas. Council has continued to support a community led pest management initiative in the Waima/Ure Valley. Council has not run the two planned targeted pest control workshops to follow up from the 2010 workshops, although it has continued to respond to enquiries and provide information etc when requested. Council is supporting an initiative led by the Marlborough Sounds Restoration Trust to implement a wilding pine control programme on D'Urville Island. This programme was made possible by previous support from Marlborough District Council in the form of a feasibility study and a management plan to provide a platform for action.</p>

7. Educational Programme

Introduction

The Marlborough District Council recognises the advantages of a strong advisory and educational role in pest management and therefore takes a very active role in providing information and advice on the various impacts caused by pests and the best methods for controlling animal pests and pest plants.

Objective		
To educate the public in the identification of regional animal pests and plant pests and promote and encourage the most appropriate management and control options.		
Performance Targets	Action taken to meet Target	Achievements
7.1 Review and publish pest fact sheets for pests listed in the Regional Pest Management Strategy.	<ul style="list-style-type: none"> Promote a strong advisory and educational role to create a greater understanding of land occupier pest management roles and responsibilities. 	<p>24 additional brochures have been prepared for regional pests listed in the RPMS bringing the total brochures to 38. Council continues to place a large emphasis on educating land occupiers in the identification and control of pests identified in the RPMS.</p> <p>Council and Department of Conservation staff organised a display at the Hunters Garden Marlborough Fete in November. It encouraged gardeners to plant native species to attract birds into their garden. The display was well attended by the public.</p> <p>A council officer ran a display on pests plants at the Ward Show in March.</p> <p>The website continues to be reviewed and a web page went live during the year. Fact sheets are available on the site. A restructure of the feral animal webpage was undertaken to guide visitors more easily into each pest animal as represented in the RPMS. More information and data was placed in the Feral Rabbit webpage along with copies of the newly published newsletter that is to be sent out twice per year.</p>
7.2 Organise and attend a public display by 30 June 2011.	<ul style="list-style-type: none"> Attend both the Ward A&P show and the Marlborough Garden fete. 	
7.3 Review the overall structure and scope of information on the Marlborough District Council's website by June 2011.	<ul style="list-style-type: none"> Liaise with the Marlborough District Council's website manager to coordinate web site updates. 	

8. Biological Control Programme

Objective		
To enhance the establishment of biological control agents for a range of pest plants with the aim of achieving an environmentally acceptable and cost effective method of control.		
Performance Targets	Action taken to meet Target	Achievements
<p>8.1 Agree on annual biological control programme outcomes in conjunction with the Biological Control Collective Group by 30 March 2011.</p> <p>8.2 Release biological control agents which have established in the region, for the purpose of further distribution by 30 June 2011.</p> <p>8.3 Undertake three releases of the Broom Gall Mite and three releases of the Green Thistle Beetle by 30 June 2011.</p>	<ul style="list-style-type: none"> • Contribute to the collective biological control programme managed by Landcare Research. • Support research initiatives for the selection and introduction of biological control agents. • Monitor the distribution of biological control agents and harvest and release biological control agents where required to enhance their distribution. • Undertake initiatives to assess the impact on pest plants, of biological control agents released in Marlborough since 2009. 	<p>Council continues to contribute financially to the Biological Control Collective Group. An application to ERMA by this Council, in conjunction with Landcare Research, to import a rust which attacks Chilean Needlegrass has been successful. For the first time in 13 years, there has been no requests from land occupiers to release a biological agent established in the region. No further releases of Nodding Thistle or Ragwort agents were made this year.</p> <p>Three releases of the Broom Gall Mite and three releases of Green Thistle Beetle were made at strategic places throughout the region. These sites were selected for release as access is a given for future harvest when the agents become established.</p> <p>No monitoring of biological control agents was carried this year.</p>

9. National Pest Plant Accord

Objective		
To prevent the sale, distribution or propagation within New Zealand of any pest plant listed in the National Plant Pest Accord.		
Performance Targets	Action taken to meet Target	Achievements
9.1 Annually inspect 50% of the plant retail outlets in Marlborough by 30 June 2011 annually.	<ul style="list-style-type: none"> Inspect half of the plant retail outlets each year on a rotational basis for any plants identified on the National Pest Plant Accord (NPPA). 	<p>50% (16) of the known plant retail outlets were inspected. No retail outlets were found to be selling any plant species listed on the National Pest Plant Accord (NPPA) list. No complaints were received regarding the sale of banned plant species. No notifications of pest plant incursions into Marlborough were received from Biosecurity New Zealand. Council officers submitted two separate applications to MAF to include an introduced plant on the National Pest Plant Accord. The two applications were for Californian Poppy and European Spindleberry. MAF are currently processing these applications. Council officers also supported the applications made by several other Councils to include various plant species on the National Pest Plant Accord.</p>
9.2 Respond to any complaints relating to the sale of banned plant species within five working days.	<ul style="list-style-type: none"> Ensure compliance of obligations. Promote a strong advisory and educational role in association with the NPPA. 	
9.3 Respond to notification by Biosecurity New Zealand of any pest incursion.	<ul style="list-style-type: none"> Record and report inspection results to Biosecurity New Zealand. Ensure all inspections are carried out by warranted officers. 	

10. Research

Introduction

The Marlborough District Council understands the need for research in the field of pest management and provides funding for a number of research projects.

Objective		
To support research programmes which benefit pest programmes in the Marlborough region.		
Performance Targets	Action taken to meet Target	Achievements
10.1 Provide resource to undertake research as approved by the Marlborough District Council by 30 June 2011.	<ul style="list-style-type: none"> • Continue working through the ERMA and ACVM application processes for the full registration of Taskforce herbicide. • Undertake serological sampling of rabbits in support of the national project to determine the effectiveness of RHD following the use of conventional rabbit control techniques. • Evaluate proposals and gain approval for any expenditure. • Verify appropriate use of budget and ensure outcomes are documented and reported. 	<p>An application was made to the Environmental Risk Management Authority (ERMA) for the registration of Taskforce Herbicide on the 14 December 2009. ERMA have approved the application subject to a range of conditions. The application to the Agricultural Compound and Veterinary Medicine group which is required before the full registration is granted was made on 24 November 2010. That application is currently at the regulatory appraisal stage which takes 40 working days.</p> <p>The Marlborough District Council also has two other trials underway for Taskforce Herbicide. The first is a re-crop trial which is being carried out by Agrivet Services. The analysis for this trial is being carried out by Hills laboratory. They will be submitted to the ACVM in the near future. The second trial is also being carried out by Agriver Services and is an efficacy trial using Taskforce Herbicide on Kangaroo Grass. When full registration of Taskforce Herbicide is approved, Council will apply for a modified re-assessment to include aerial application of the product and to allow its use on Kangaroo Grass.</p>
10.2 100% of RHD immunity level surveys completed by June 2011.		

Objective		
To support research programmes which benefit pest programmes in the Marlborough region.		
		<p>An application to ERMA by the Marlborough District Council to allow the importation of a rust species which attacks Chilean Needlegrass in South America was successful. Landcare Research are now working with South American authorities to get a permit allowing them to take it out of South America and bring it into New Zealand. Once here, it will be cultured in quarantine for release in the field. This will take place next Autumn if everything goes to schedule.</p> <p>All planned RHD immunity surveys were undertaken in late April 2011. Whilst not all target samples sizes were achieved a good dataset was obtained from the five sites sampled. This data was also supplied to Landcare Research to feed into the national dataset. Three sites were sampled in the Upper Awatere, one in the Wairau Valley and one in the Avon Valley.</p>

11. Biosecurity Programmes – Other

Objective		
To facilitate partnerships with industry and the Crown in the management and coordination of national pest and unwanted organism programmes.		
Performance Targets	Action taken to meet Target	Achievements
<p>11.1 Continue to support the implementation of the Didymo Long Term Management Plan objectives by 30 June 2011.</p> <p>11.2 Provide ongoing support in the implementation of the Management Plan for the Top of the South Marine Biosecurity Strategy.</p> <p>11.3 Provide partnership support to Biosecurity New Zealand to respond to any new pest incursion.</p>	<ul style="list-style-type: none"> • Support the Didymo Long Term Management Plan in partnership with the Department of Conservation, with support from MAF Biosecurity, and Fish and Game and Tasman District Council. • Manage the contractual relationship of the service provider of the Top of the South Marine Biosecurity Strategic Plan on behalf of the Top of the South Marine Partnership. 	<p>Council received ongoing funding from MAF Biosecurity for Didymo and other fresh water Biosecurity advocacy during the 2010/11 season. The Department of Conservation provided the service for Council and undertook advocacy work. Their report has been received and sent to MAF Biosecurity for acceptance</p> <p>The Top of the South Marine Biosecurity Partnership has been responsible for the development of a Strategic Plan with a view to safeguarding the marine ecology with buy in from the public and marine users. During the year the partnership has prepared an Operational Plan and undertaking extensive advocacy with stakeholders and marine users.</p> <p>MAF Biosecurity did not request any support for any new marine pest incursion during the report period.</p> <p>Council continues to actively be involved assisting the Marlborough Sounds Restoration Trust with its programme for the management of wilding conifer spread in the Queen Charlotte Sound. The trust has embarked on new wilding conifer control incentives in the Pelorus Sound and on D'Urville Island</p>

12. Monitoring and Review of the Strategy

The Strategy specifies how the effects of the strategies are to be monitored throughout their duration. The term 'effect' covers two main areas:

- The effectiveness of the Strategy in terms of achieving its stated objectives.
- The environmental effects of the Strategy's implementation.

This report will satisfy stakeholders that the majority of stated operational plan objectives have been achieved during 2010/2011, while the term 'environmental effects' is much more difficult to quantify.

Where appropriate monitoring methodologies are available to measure a stated objective, data has been collected to measure these outcomes. Pest population trend data will assist Marlborough District Council and stakeholders to monitor the effectiveness of the Strategy.

12.1. Total Control Plant Pest Trend Monitoring

The overall aim for total control plant pests, as stated in the Strategy, is the eradication of them from the region. The Strategy's objective is to contribute to the eradication of these plant species by destroying them at known sites annually before they produce seed and preventing their establishment in new areas. To measure this objective, the number of plants destroyed annually at each known site is recorded.

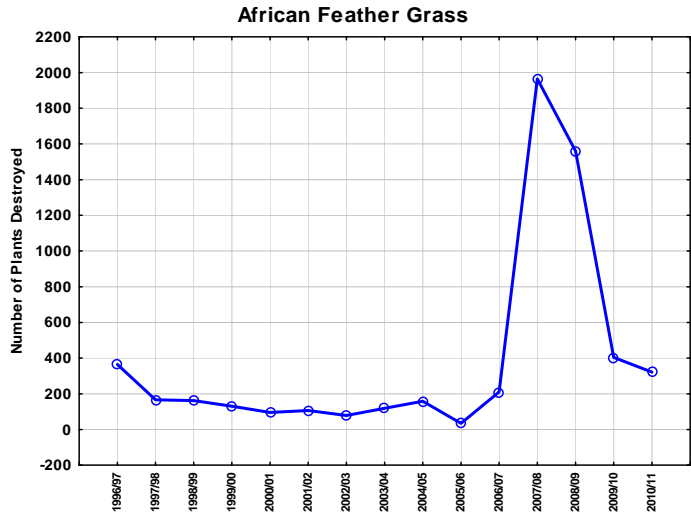
12.1.1. Total Control Plant Pests 'Core Data' (MDC Initiative)

Total Control Plant Pest	Number of Known Infestations	Plants Destroyed													
		1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Bur Daisy	1	2,150 approx	31,000 approx	20,500 approx	6,000 approx	500	130	55	110	50	32	52	100	20	16
African Feather Grass	16	167	162 (Including 1 new site)	131	96	106	79	119 (Including 2 new sites)	158	35 (Including 1 new site)	210 (Including 1 new site)	1965	1560	404	322
Saffron Thistle	16	26	2,000 approx	77 (Including 1 new site)	6,035 (Including 6 new sites)	4823	116	1325	1049	341	219 (Including 1 new site)	1084	534	148	676
Bathurst Bur	12	-	69	669	301	294	12	119	81 (Including 1 new site)	159	2	12	9	0	4
Giant Needlegrass	12	-	-	-	3,000 approx	273	325	451	329	225	327	34	148	1270	1614
Chinese Pennisetum	13											84	71	19	29 (Including 2 new sites)
Parrots Feather N.B Figure shown is litres of Glyphosate Herbicide concentrate used for Parrots Feather control in Gibsons Creek. Infestations are still too extensive in this waterway to count individual plants.	17							(5 new sites)	(4 new sites)	(2 new sites)	(1 new site)	4.3L Glyphosphate (5 new sites)	3L Garlon 360 1L Glyphosphate	1.75L Garlon 360	0.7L Garlon 360

12.1.2. Total Control Pest Plants ‘Analysis’ (MDC Initiative)

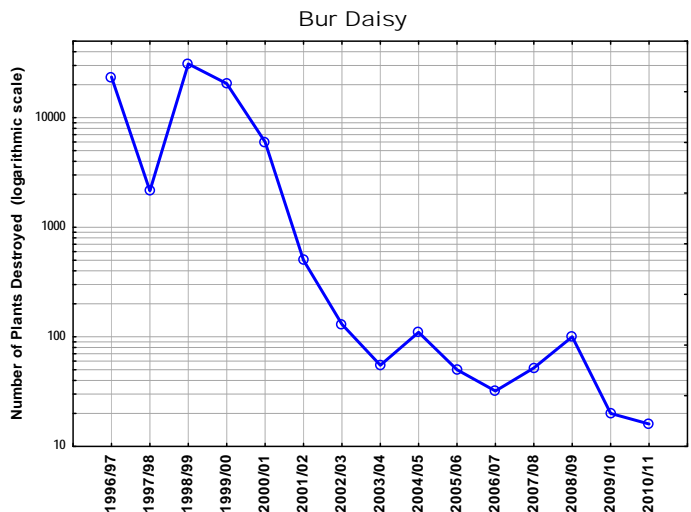
African Feather Grass

The change to Gallant herbicide several years ago has paid off. The vast majority of plants controlled each year are at the one site at Ngakuta Bay near Picton.



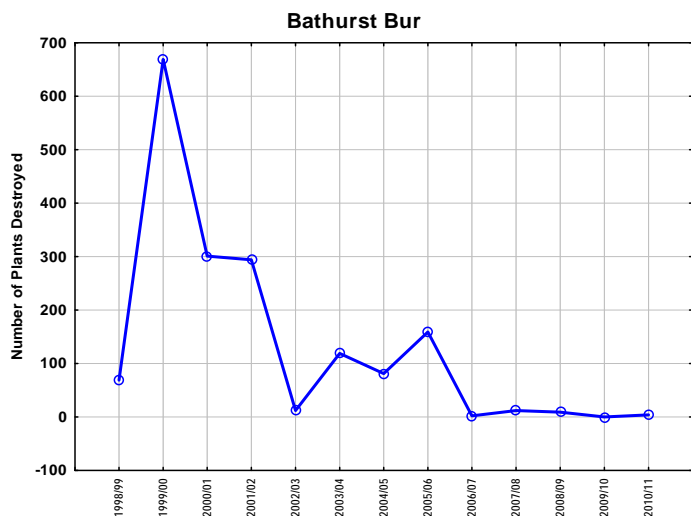
Bur Daisy

Aiming for eradication of Bur Daisy, this coming season Tordon Prills will be applied where plants are grubbed and bagged to kill any emerging seedlings.



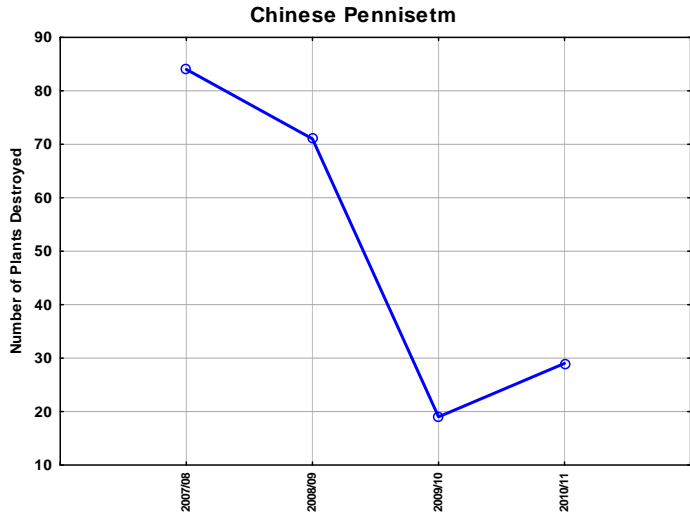
Bathurst Bur

4 plants were found this year at two different sites. They were found in known areas.



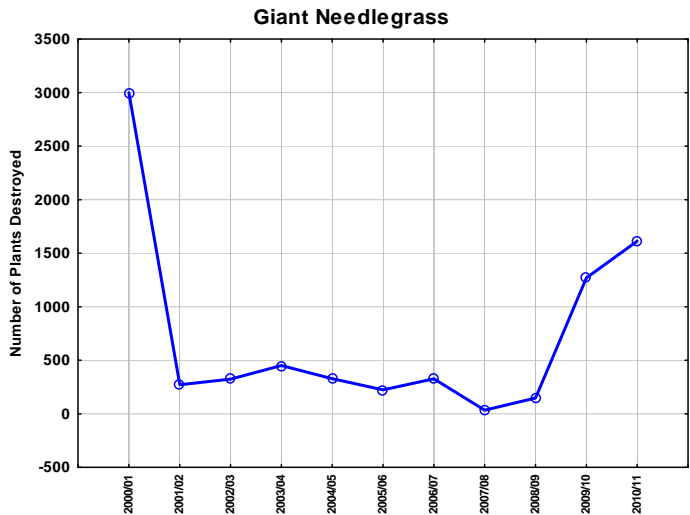
Chinese Pennisetum

Plants were found at 2 new sites this year. They were on properties inspected many years ago that were thought to be free of this weed.



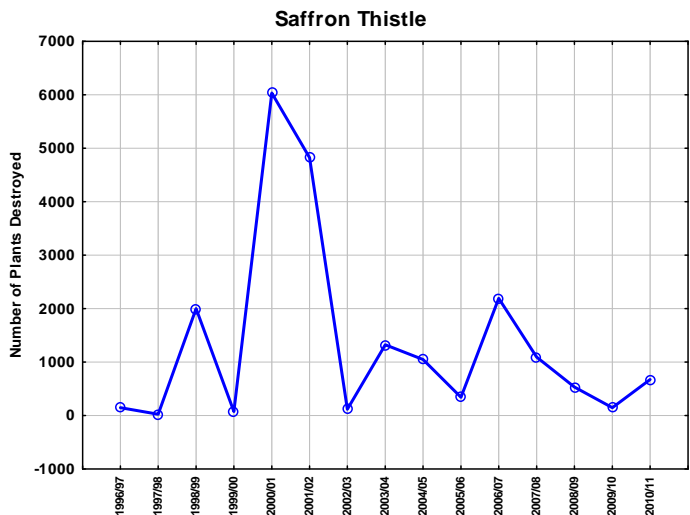
Giant Needlegrass

The area with the largest infestation of this weed is located in a harvested forest area. The result has been a huge germination of young plants from the existing seed bank - hence the increase. Again this year, three separate control operations were carried out and all plants have been sprayed with a residual herbicide called Gardoprim.

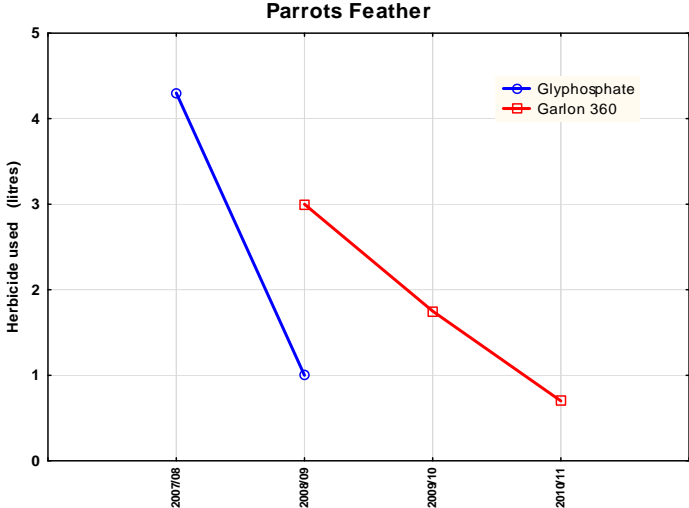


Saffron Thistle

Only one site continues to require a substantial amount of control work. A new patch was found at this site this year. A number of the other known sites have been visited annually for several years and no plants have been found.



Parrots Feather
With the use of Garlon 360, infestations of this invasive aquatic weed continue to decline.



12.1.3. Total Control Pest Plants 'Core Data' (MDC/DOC Combined Initiative)

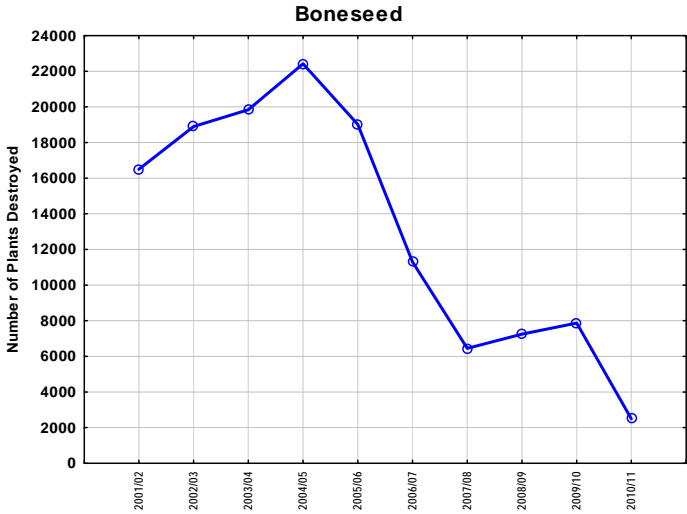
Total Control Pest Plant	Number of Known Infestations	Plants Destroyed										
		2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Boneseed	17	-	16,500 approx	18,904 (Including 3 new sites)	19,843 (Including 5 new sites)	22,421 (Including 5 new sites)	19,011 (Including 1 new site)	11,300	6,455	7,252	7,865	2,505
Climbing Spindleberry	5	2,530 approx	1,020 approx	279	79	85	139 (Including 1 new site)	133	333 (Including 1 new site)	644	38	48
Moth Plant	235	-	25	139 (Including 3 new sites)	135 (Including 5 new sites)	127 (Including 7 new sites)	86 (Including 1 new site)	603 (Including 58 new sites)	677 (Including 9 new sites)	1,479 (Including 47 new sites)	2,484 (Including 36 new sites)	2,824 (Including 59 new sites)
Madeira Vine	4	250	450 (Including 1 new site)	23	63	7	14	20	706 (Including 1 new site)	103	149	60
Eel Grass NB: Infestations are pulled by hand	8	21 tonne	3 tonne (Including 1 new site)	2.75 tonne (Including 1 new site - Waterlea Creek)	1.25 tonne (Opawa Loop) 60 plants (Waterlea Creek)	60 kg (Opawa Loop)	100 kg (Opawa Loop)	1,500 kg (Including 2 new sites)	150 kg (Opawa Loop) 40 kg (Waterlea Creek)	10 kg	1,800 kg	3 kg
Cathedral Bells	7	-	-	-	-	-	-	-	364 (NB Control work was carried out at 4 of the 7 sites - All 7 will be inspected and controlled 08/09)	1,329	649	690
Evergreen Buckthorn	3	-	-	-	-	-	-	-	1,613	1,154	309	3 (Including 1 new site)
Senegal Tea	2	-	-	-	47 (2 new sites)	1	9	-	Both known sites have been eradicated	Both known sites have been eradicated	Both known sites have been eradicated	Both known sites have been eradicated

Total Control Pest Plant	Number of Known Infestations	Plants Destroyed										
		2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Spartina Grass NB: Figure shown is litres of Gallant Herbicide concentrate used for Spartina Grass control each spraying season. Infestations are still too extensive to count individual plants.	5				580 L	415 L	19.7 L	1.97L	1.25L	1.2L	0.9L	.38L

12.1.4. Total Control Pest Plants ‘Analysis’ (MDC/DOC Combined Initiative)

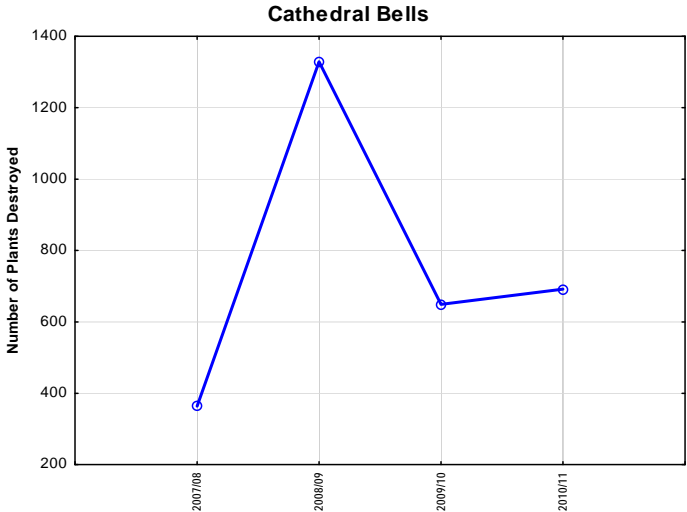
Boneseed

Forestry felled to waste let the light in at Snake Point and the result has been large infestations of flowering Boneseed. Helicopter spraying of emerging plants was utilised again in this rough terrain.



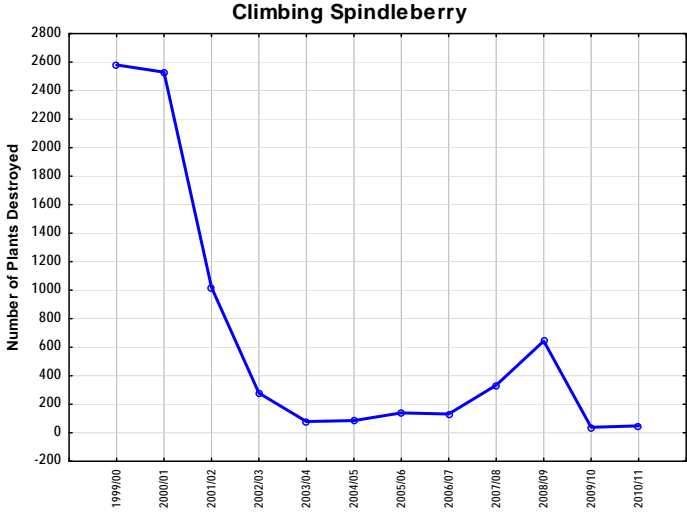
Cathedral Bells

The major infestations have been destroyed but seedlings continue to emerge.



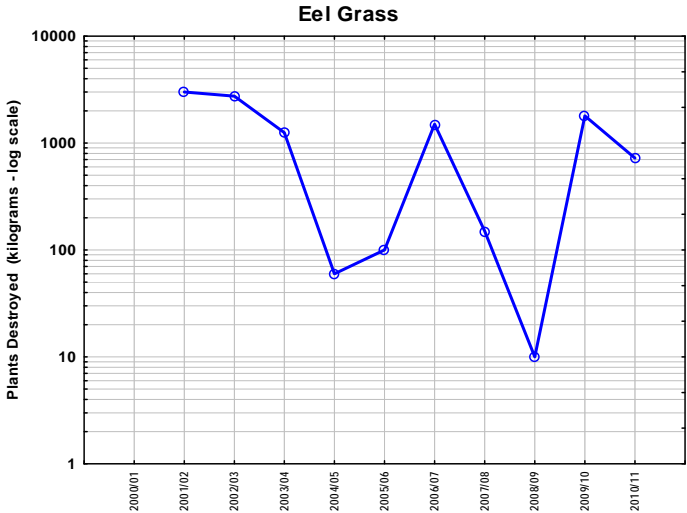
Climbing Spindleberry

The major infestations have been destroyed but seedlings continue to emerge.



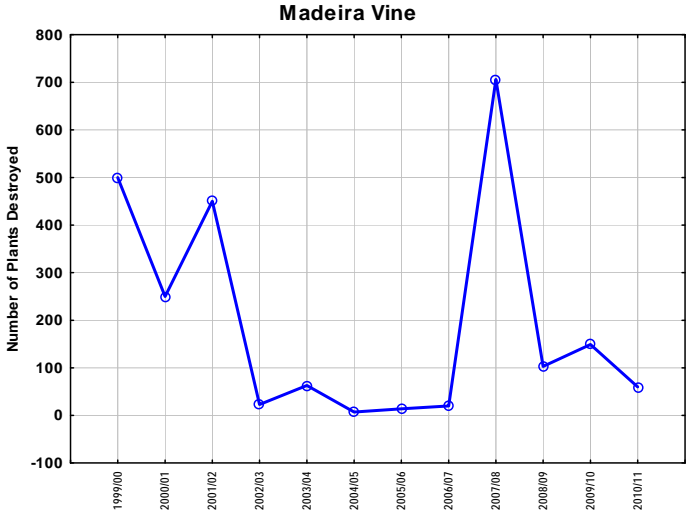
Eel Grass

Only 3kg of Eel Grass was removed by hand from the Opawa Loop. The infestation in Waterlea Creek that we thought was eradicated did flared up again this year. 720kg was removed from this waterway.



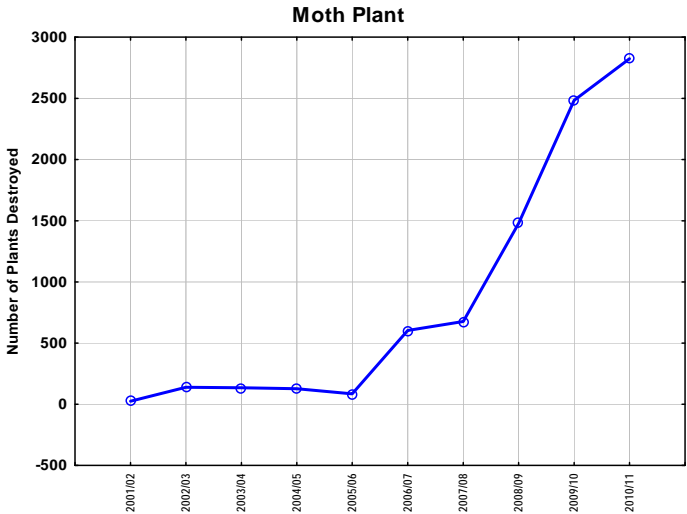
Madeira Vine

All four Maderia Vine sites were visited. Plants were only found at one of the sites.



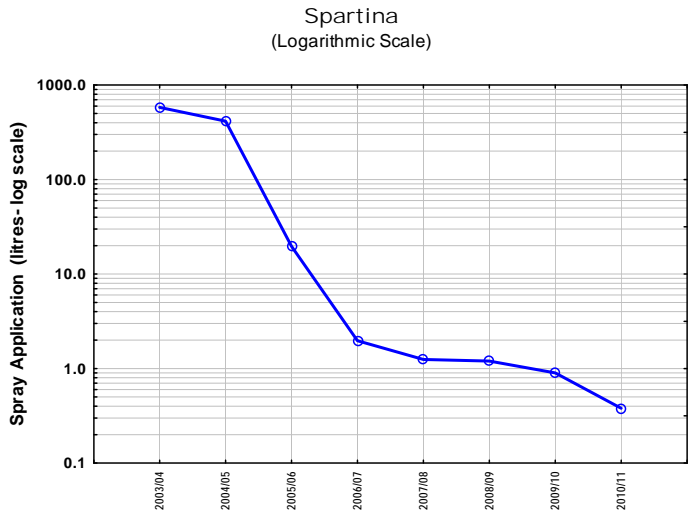
Moth Plant

With the increase in public awareness, Council officers continue to find and control more new sites.



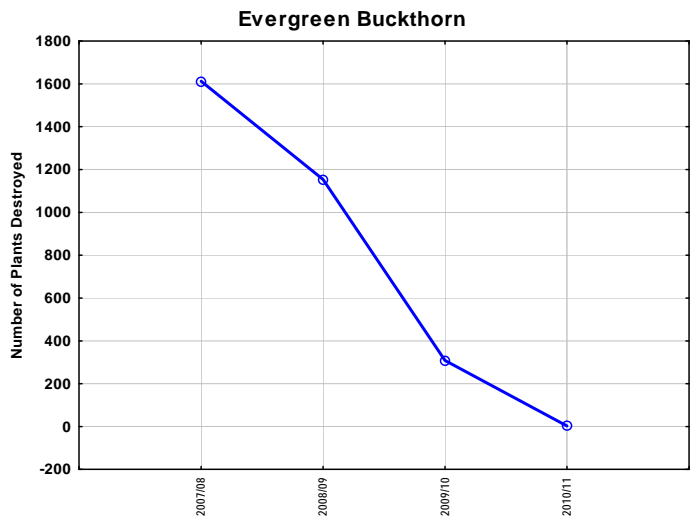
Spartina

This successful initiative shows a continual decline in emerging plants.



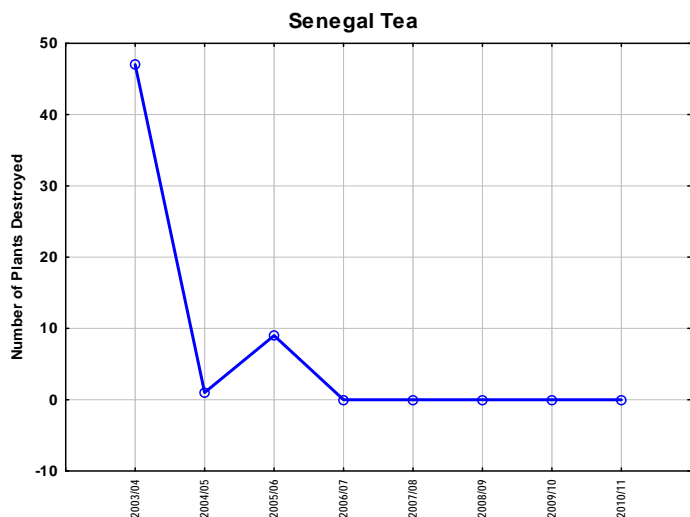
Evergreen Buckthorn

Evergreen Buckthorn is a huge problem in some coastal areas of the North Island. In this region, plant numbers destroyed annually continue to decline. One small new site was found near a known site this year. More surveillance is planned for next year.

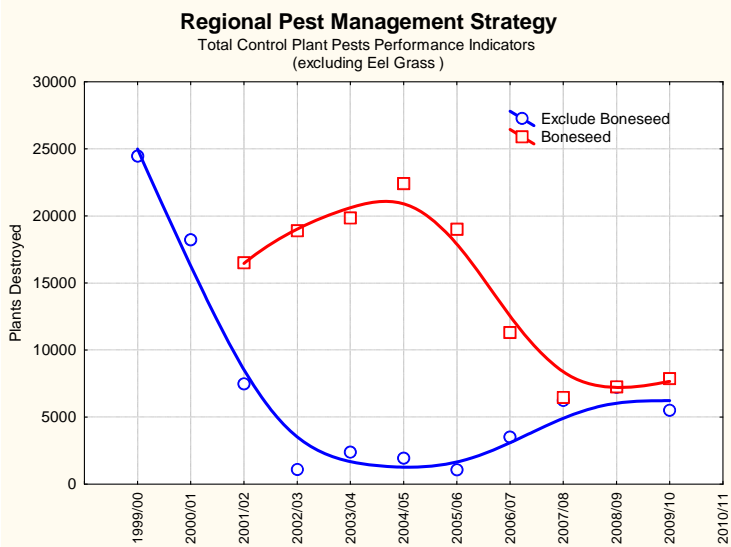


Senegal Tea

No new sites of Senegal Tea have been found. At this stage, it would appear it has been eradicated from the district.



**Regional Pest Management Strategy
(Total Control Plant Pests Performance Indicators
(excluding Eel Grass))**

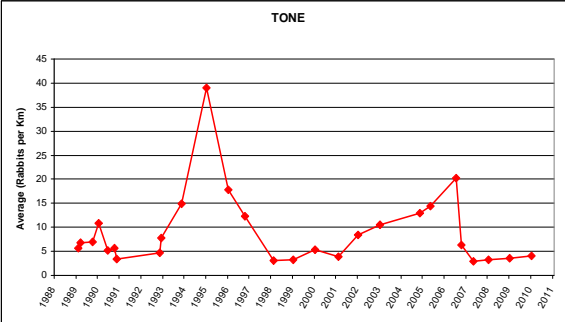
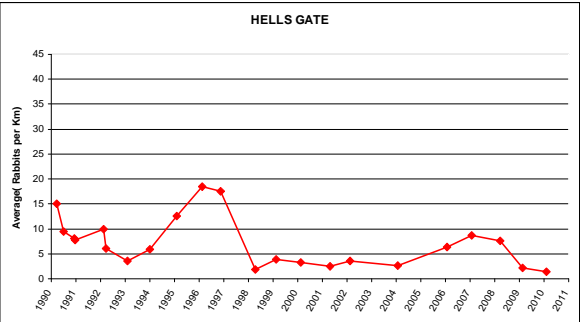


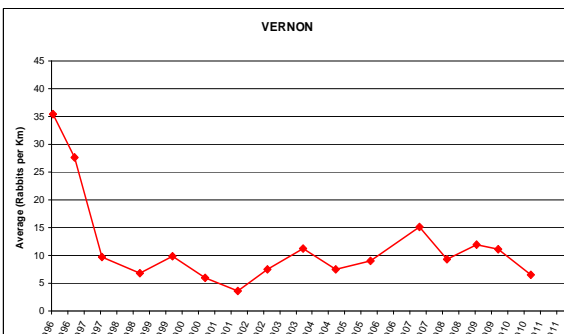
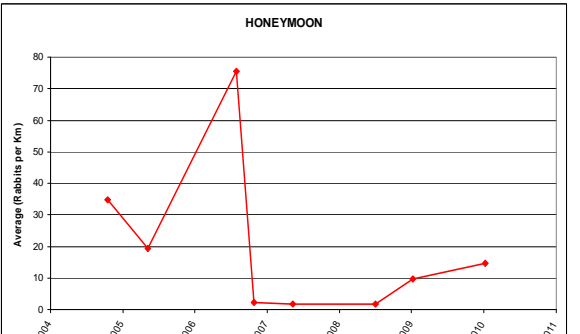
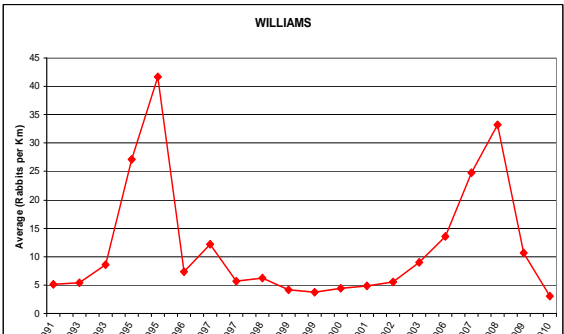
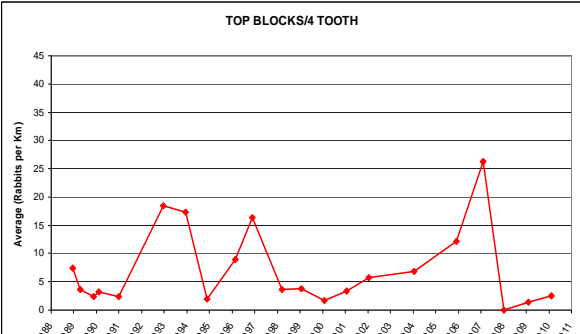
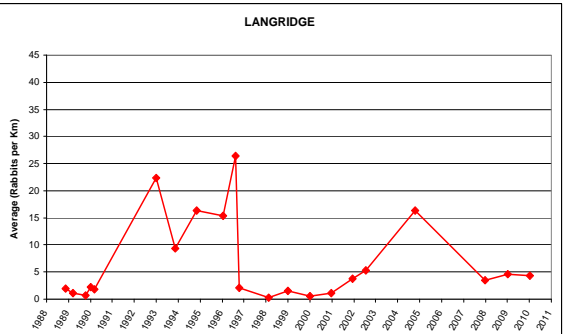
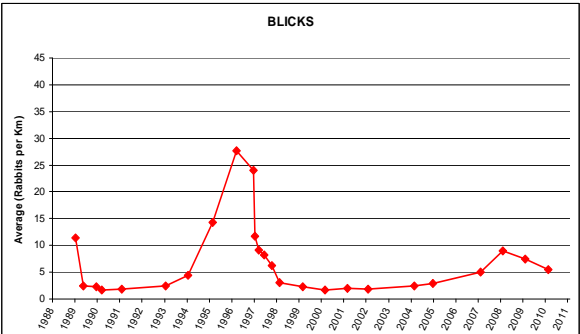
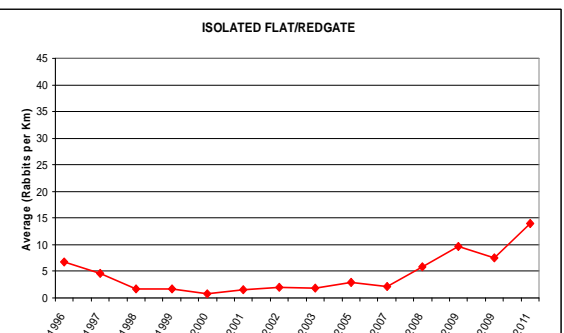
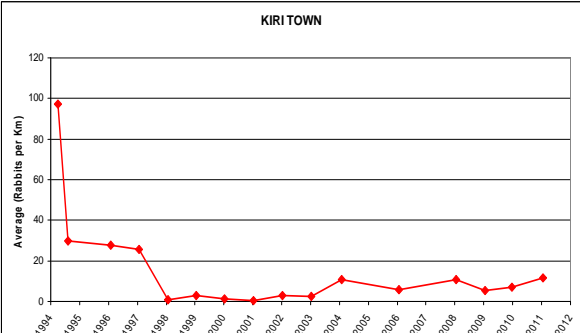
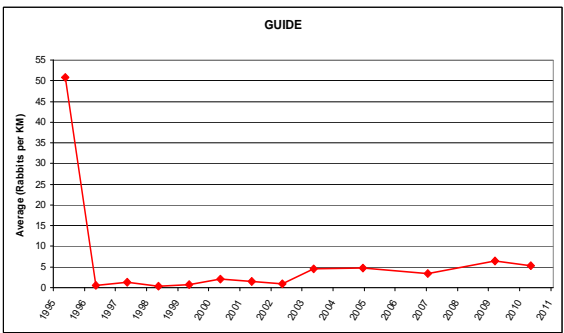
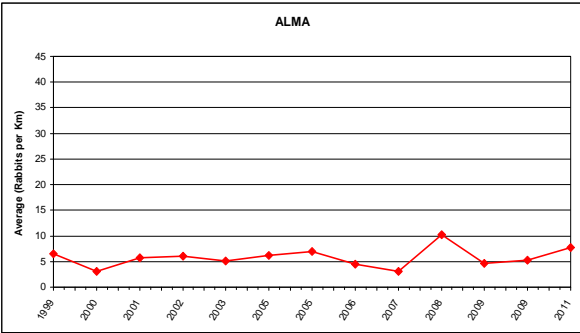
12.1.5. Rabbit Pest Trend Monitoring - Night Count Data

The desired end result of the Rabbit Pest Management Strategy is to ensure rabbit populations are controlled so that they do not adversely affect the economic viability of our primary industry or soil and water quality. It is difficult to quantify the economic or environmental effects of changing rabbit populations.

The graphs below show rabbit levels pre RHD (pre 1997) and the subsequent trends since that time. In general, rabbit numbers across the timeframe of these night counts have remained steady. However, there have been pronounced peaks in rabbit abundance in the mid 1990s and again in 2007. Both times these increases have been brought back down by, initially the introduction of RHD, then more recently through intensive conventional control. The more recent increases can be correlated to an increase of RHD immunity in the rabbit populations. It is expected, from early signs, the numbers are slowly building again and without intervention would result in another influx as seen previously.

On a positive note, recent population recoveries have been slower than pre-RHD suggesting RHD is still having some impact in the current environment but merely complementary to control.





13. Summary

1. The majority of performance measures have been achieved through the year.
2. The control of the aquatic pest plants Parrots Feather and Reed Sweet Grass has proved to be very successful again this year. No new sites of either species were found this year. The use of Garlon 360 has been the breakthrough we needed to potentially eradicate Parrots Feather in time.
3. The majority of occupiers have complied with written obligations through the issuing of pest control programmes. Legal directions are only issued once all other compliance alternatives are exhausted. 24 Notices of Direction were issued as a result of occupiers failing to meet their obligations under the Strategy. Five Notices of Intention to do Work on Default were issued as a result of further non-compliance. Default work was carried out on three properties that failed to comply and default work had to be carried out.
4. Land use changes with their associated activities continue to increase the risk of Chilean Needlegrass (CNG) seed being spread from infested areas to clear areas. The Marlborough District Council is currently looking at better ways it could help to minimise any possible risks. Council continues to proceed with the registration of a new tool to control CNG.
5. The cost of rabbit pest monitoring and land owner conventional control activities continues to increase substantially due to the decline in the impact of the RHD virus in Marlborough.
6. A major emphasis on education relating to the control and identification of pests identified in the Strategy continues to be a primary activity.
7. Extensive surveillance work for total control and containment control pest plants continues. New pest plant sites for several pest plants continue to be discovered. These sites are recorded and the Marlborough District Council takes appropriate action to ensure the plants at these sites are destroyed where required, either by Council officers or by land occupiers.
8. The Marlborough District Council and the Department of Conservation continue with great success in eradicating Spartina Grass from the region.
9. The biological control of weeds programme with Landcare Research continues to be of huge benefit to the region. The Marlborough District Council's application to ERMA to a rust which attacks Chilean Needlegrass in South America has been successful. We hope to release this rust in the Autumn of next year.
10. The Marlborough District Council continues to be active with assisting industry and other stakeholders with pest programmes, in particular, Didymo and other marine biosecurity measures.

Record No: 11113050