

Regional Pest Management Strategy Operational Plan Report

2015/2016



**MARLBOROUGH
DISTRICT COUNCIL**

Cover Photos

Front cover: Bennett's Wallaby (*Macropus rufogriseus*).

Rear cover: A mature Chilean Needle Grass (*Nassella neesiana*) plant found within the Taylor River Reserve in November 2015.



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DISTRICT COUNCIL**

Regional Pest Management Strategy Operational Plan Report 2015/2016

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Table of Contents

Executive Summary	1
1. Introduction	2
1.1. Purpose of Operational Plan Report.....	2
1.2. Linkages.....	2
2. Pest Management Programmes.....	3
2.1. Introduction	3
2.2. Pest Plant Status	3
2.3. Animal Pest Status.....	5
2.4. Performance Scoring System	6
3. Total Control Pest Objectives and Performance Targets	7
4. Containment Control Pest Objectives and Performance Targets.....	11
5. Surveillance	18
6. Ecological Threats	20
7. Educational Activities.....	21
8. Biological Control Programme	22
9. National Pest Plant Accord	23
10. Research.....	24
11. Biosecurity Programmes - Other	26
12. Review of the Operational Plan.....	30
13. Monitoring and Review of the Strategy.....	31
14. Performance Overview	32
14.1. Performance Trend	32
Appendix 1 - Total Control Pest Plant Data Trends.....	33

Executive Summary

Almost all (91%) of performance measures have been achieved throughout the year. This is an increase on the previous year where 89% of measures were achieved.

The Total Control programme continues to demonstrate the challenges of keeping the pressure on pest plants, even at a low number of sites. This year saw the largest infestation of Moth Plant found to date in Waikawa thanks to increased levels of public awareness. Substantial increases in plants found in both the Saffron Thistle and Bathurst Bur programmes can be attributed to climatic/biological factors and, in one instance, ground disturbance. Nonetheless, given the intensive management in place, all sites are being thoroughly inspected and are under ongoing intensive management.

The community and Council continue to work together under the larger Containment programmes where landholder obligations are the main mechanism for management. The quality of landholder control work for likes of Nassella Tussock continues to improve. Engagement with the community through the Chilean Needle Grass programme is also growing, with excellent work happening in the community from control, property hygiene initiatives and also trials and research.

There are ever present new threats to our region. Some of these are already present - such as Rough Horsetail and Tall Wheat Grass - and work is underway to assess both the threats and feasibility for management. Others, such as Wallabies, are not yet present in Marlborough and work continues to keep it that way. One Wallaby carcass was found on the road in the Upper Wairau with investigations suggesting dumping as the likely origin.

Other non-regulatory activities are also ongoing and were delivered in 2015/2016. This included managing research requirements to support the registration of Taskforce herbicide and managing the regional response to threats from marine pests. Support has also been provided toward a number of Sustainable Farming Fund (SFF) projects underway that have specific benefit to the Marlborough community. These have included:

- Research into the biological control of Wasps;
- Improving the levels of awareness with respect to Chilean Needle Grass; and
- Improving the understanding of the Rabbit Haemorrhagic Disease (RHD) virus (including potential new strains/release strategies).

1. Introduction

The Regional Pest Management Strategy for Marlborough (the Strategy) was made operative on 17 December 2012. It was the result of a review that spanned major amendments to the Biosecurity Act 1993 in September 2012. Because of this, the review was carried out under transitional provisions within the Act which meant it was completed under the previous version of the legislation. This report will also retain the terminology and structure as per the existing Strategy until such a time it is reviewed under the new legislation.

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:

- (a) Minimise actual and potential adverse and unintended effects associated with the targeted pests; and
- (b) 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 and the main methods to achieve the objective, including rules relating to each pest.

1.1. Purpose of Operational Plan Report

The Operational Plan for 2013-2017 was prepared in accordance with Section 100B of the Biosecurity Act 1993 and identifies and outlines the nature and scope of activities the Marlborough District Council intends to undertake in the implementation of its Regional Pest Management Strategy. This report outlines progress of the Operational Plan in the 2015/16 year and outlines key achievements/performance measures for the year.

1.2. Linkages

The Operational Plan (and subsequent Reports) is integrated, as far as possible, with the Marlborough District Council's Regional Policy Statement, Resource Management Plans and the Marlborough District Council Long Term Plan 2015-2025. The Long Term Plan provides an overview of all Marlborough District Council functions, including pest management and biosecurity activities.

This Operational Plan Report should also be read in conjunction with the Strategy.

2. Pest Management Programmes

2.1. Introduction

The Strategy classifies 33 plant and 4 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, 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	Comments
African Feather Grass	Total Control	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 the Marlborough District Council.
Bathurst Bur		
Bur Daisy		
Saffron Thistle		
Giant Needle Grass		
Chinese Pennisetum		
Parrots Feather		
Boneseed	Total Control	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 the 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		
Eel Grass		
Madeira Vine		
Moth Plant		
Spartina		
Evergreen Buckthorn		
Senegal Tea		
Cathedral Bells		

Plant Pest Species	Status	Comments
Nassella Tussock	Containment Control	Land occupiers are required to annually destroy all plants on their properties before they produce seed.
Chilean Needle Grass		Land occupiers are required to annually destroy plants on their properties before they produce seed.
White-edged Nightshade		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.
Kangaroo Grass		
Broom and Gorse		Land occupiers are required to progressively control Broom in the Upper Awatere 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 these pest plants.
Ragwort		Land occupiers are required to destroy Ragwort plants within 50 metres of their property boundary if the adjacent property is free of this plant pest.
Nodding Thistle		Land occupiers are required to destroy Nodding Thistle plants within 100 metres of their property boundary if the adjacent property is free of this plant pest.
Contorta Pine		Land occupiers are required to destroy all plants with the exception of properties located directly adjacent to the Wye Reserve.
Reed Sweet Grass		The Marlborough District Council is responsible for controlling this pest plant.
Blue Morning Glory	Surveillance	The key objective for management of these pests is to monitor their distribution, their impacts and gain some understanding of the spread of these organisms over time.
Climbing Asparagus		
Egeria		
Cotton Thistle		
Kahili Ginger and Yellow Ginger		
Lagarosiphon		
Purple Loosestrife		



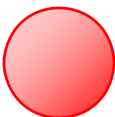

2.3. Animal Pest Status

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

Animal Pest	Status	Comments
Rook	Total Control	Successful Rook control has been carried out in Marlborough and ongoing surveillance to monitor any re-establishment continues. No rookeries have re-established since 2005. If Rooks were allowed to re-establish they are capable of causing significant damage to cereal crops and pasture. The Marlborough District Council will carry out any Rook control within its district with the aim of eradication.
Rabbits	Containment Control	High Rabbit populations affect soil and water quality, have a detrimental impact on economic production and increase the risk of soil erosion. It is the Marlborough District Council's responsibility to ensure land occupiers comply with their obligation to control Rabbits. Marlborough District Council will continue to carry out Rabbit population trend monitoring and offer advice on control.
Possums		Possums cause extensive defoliation of native forest and predate on native fauna. 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. Possums are vectors of bovine Tb and can cause large economic loss to the beef and dairy industry. Possums also cause extensive damage to young commercial forestry plants. Currently AHB undertake Possum control.
Invasive Ants	Surveillance	Darwin Ants are in the Strategy as an invasive species that originates from Australia. Surveillance for these and other invasive ants will be carried out annually to determine their presence and/or distribution.



2.4. Performance Scoring System


To help guide readers through the ensuing performance measures, a traffic light system has been adopted to highlight those measures achieved, partially achieved or not achieved.

Symbol	Definition
	<p>Achieved. All actions have been taken with the measure achieved.</p>
	<p>Almost Achieved. Actions have been undertaken but the measure has not been fully achieved for reported reasons.</p>
	<p>Not Achieved. Actions have not be undertaken to the level required or not been undertaken at all and the measure has not been achieved.</p>
	<p>Not applicable. No actions were required to measure against the target.</p>

3. Total Control Pest Objectives and Performance Targets

Note. High Priority = sites that have an infestation status of Active (pest continuing to the found) or Monitoring (pest found in the last 5 years).

Objective To eradicate Total Control pest plants from Marlborough.			
Performance Targets	Reporting	Performance	Action Taken to Meet Targets
3.1 100% of High Priority Total Control Pest sites are controlled annually by 30 June. ⁽¹⁾	100% of High Priority sites were visited in 2015/2016.		<ul style="list-style-type: none"> Plan, implement and manage services required to carry out control operations. Carry out surveillance work for each of the 16 Total Control pest plants including Spartina Grass to make up a minimum of 200 hours. Record and maintain pest plant abundance and distribution data to enable trend monitoring over the duration of the Strategy.
3.2 Carry out not less than 200 hours of surveillance and subsequent control for Total Control pest plant species annually by 30 June. ⁽¹⁾	<p>1400 hours of surveillance work was carried at 132 sites for Total Control pest species in this financial year.</p> <p>Department of Conservation and Marlborough District Council Biosecurity staff placed an extra emphasis on historical pest sites this year. A total of 81 hours of surveillance work was carried out at 67 historical pest sites, to determine any re-occurrence of Total Control plant species.</p> <p>Out of the 1400 total, 1305 hours were part of the Spartina programme covering 11 broad geographic areas, including the likes of the Pelorus and Kaituna Estuaries.</p>		

<p>3.3 A measured decline to <5500 pest plants destroyed annually over all High Priority sites by 30 June.</p>	<p>6709 pest plants were destroyed over all sites, plus 37 kilograms of Eel Grass removed from Waterlea Creek.</p> <p>The increase in the number of plants destroyed has been attributed to the large numbers of Saffron Thistle and Bathurst Bur found this year. The number of Chinese Pennisetum plants found this year was also higher than usual.</p> <p>The Bathurst Bur infestation was initially found as a new site in 2014 adjacent to historical infestations. Since then Bathurst Bur has progressively germinated as the area (formerly covered in pasture) has been subject to soil disturbance during the development of a vineyard.</p> <p>The high incidence of Saffron Thistle this season is believed to be a result of the low rainfall during the last two summers, and lack of competing pasture species at the infested sites.</p> <p>Appendix 1 contains individual pest trends.</p>		
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Objective			
To ensure Rooks do not establish in Marlborough.			
Performance Targets	Reporting	Performance	Action taken to meet Targets
3.4 Annually monitor all sites that previously had Rooks in residence with the last 10 years and investigate any sightings within 2 working days.	Contact was made with the two land occupiers where there are two known sites to have Rooks present within the last 10 years. There have been no sightings no signs of activity at these sites. No sightings were reported to Marlborough District Council.		<ul style="list-style-type: none"> Carry out an annual Rook survey and report on the presence of Rooks at previous active sites. Actively sought public and land occupier reports of sightings of Rooks.
3.5 Undertake a public awareness campaign annually in Spring to facilitate sightings of Rooks.	Article on 'Pest of the Month' Marlborough District Council website was used to foster awareness and report sightings. No reports of Rook activity were received by the Marlborough District Council.		



Figure 1: A substantial new infestation of Moth Plant (*Araujia hortorum*) found smothering trees in Waikawa.

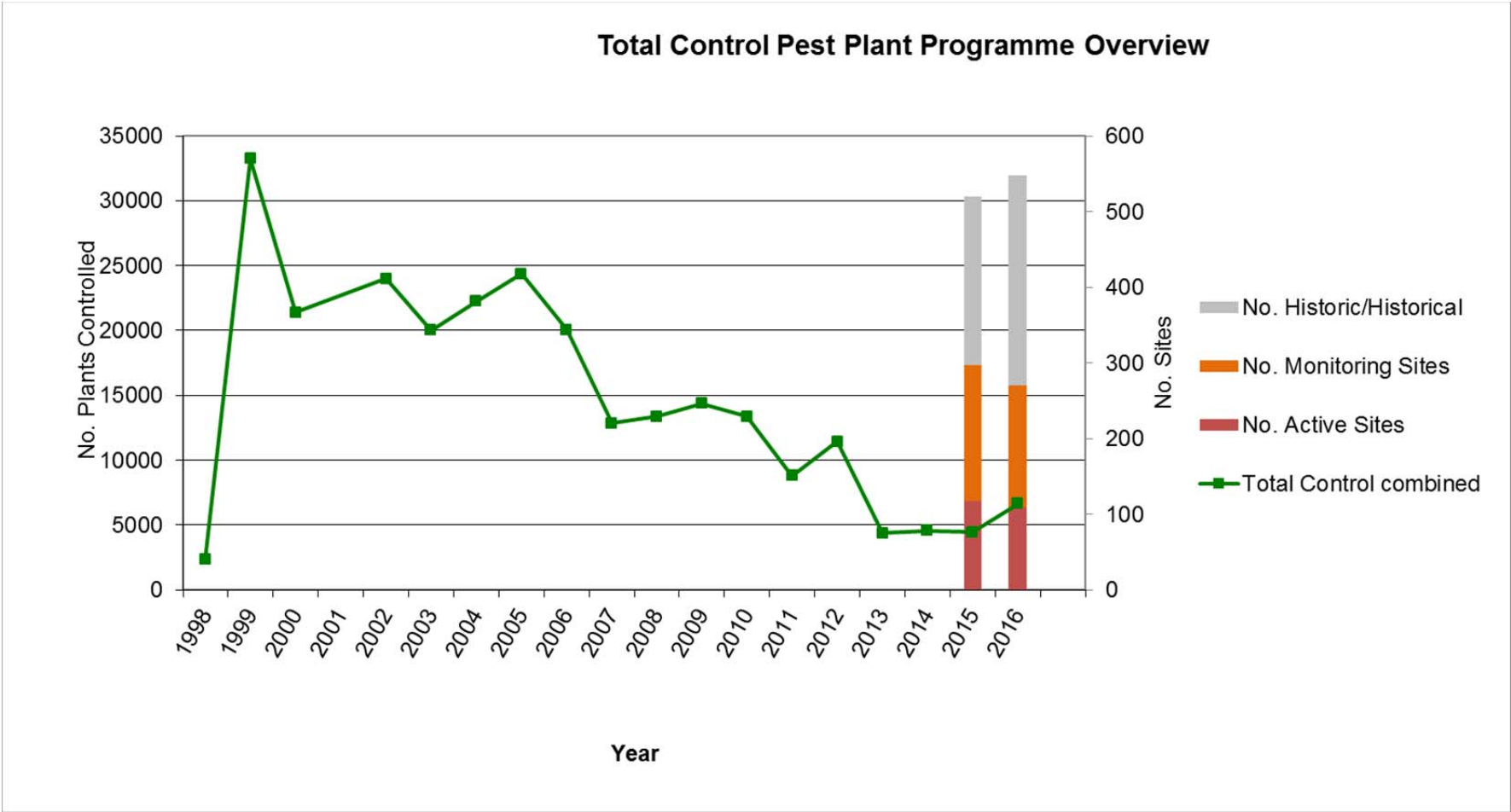





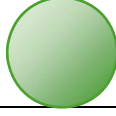




Figure 2: Total Control Pest Plants Trend

Note: Individual trends can be found in Appendix 1.

4. Containment Control Pest Objectives and Performance Targets

Objective			
To prevent any increase in the distribution and density of pest plants and reduce infestation levels where possible.			
Performance Targets	Reporting	Performance	Action Taken to Meet Target
4.1 Annually prepare and distribute pest plant control programmes to land occupiers, as required, annually by the deadline set for the relevant containment pest species.	<p>*Note: The 12 month period for Nassella Tussock data commences in the previous financial year on 1 March 2015.</p> <p>376 control programmes were issued to land occupiers with Containment Control pest plants.</p>		<ul style="list-style-type: none"> Annually prepare control programmes for all land occupiers where active facilitation by Marlborough District Council is warranted.
4.2 Annually inspect a combined minimum of 85% of Nassella Tussock, Kangaroo Grass and White-edged Nightshade sites to confirm the issued control programme has been completed to standard. ⁽¹⁾	<p>A total of 361 control programmes were issued for the containment pest plants Nassella Tussock, 11 for Kangaroo Grass and 4 for White-edged Nightshade.</p> <p>273 out of the 376 or 72% of properties issued with a control programme were inspected to confirm completion to standard.</p> <p>Sites issued with control programmes for Nassella Tussock have now been categorised to better facilitate future compliance inspections. The categorisation system has identified sites with very good compliance histories, or lower levels of Nassella Tussock, allowing these sites to be eligible for biannual inspections. This is likely to change the measure of the performance target for 2016/2017.</p>		<ul style="list-style-type: none"> Prioritise sites for inspection and carry out inspections or verify compliance.
4.3 An annual inspection is made with 100% of Chilean Needle Grass Fringe sites to inspect for compliance, undertake education/assistance or undertake control activities.	All 44 Fringe sites for Chilean Needle Grass were inspected for compliance.		<ul style="list-style-type: none"> Undertake the strategic management of pests on some sites classified at Fringe.

<p>4.4 Annual contact is made with 100% of Chilean Needle Grass Core sites to either inspect for compliance or undertake education/assistance activities.</p>	<p>All 24 Core sites for Chilean Needle Grass were inspected for compliance.</p>		<ul style="list-style-type: none"> • Make contact with those landholders with a 'Core' Chilean Needle Grass property to ensure compliance with boundary control rules and foster further best practise management.
<p>4.5 Undertake an annual surveillance, and carry out required control works, on 100% of Fringe Chilean Needle Grass sites where Council undertakes strategic management.</p>	<p>100% of these sites were controlled this season.</p>		
<p>4.6 Investigate any new reports of potential Chilean Needle Grass infestation within 2 working days.</p>	<p>7 new reports of Chilean Needle Grass which were all investigated within 2 working days.</p>		
<p>4.7 < 40 land occupiers issued with notices of direction due to non-compliance with Strategy rules within the 12 month period to 30 June.</p>	<p>15 land occupiers were issued with a Notice of Direction due to non-compliance with Strategy rules.</p>		<ul style="list-style-type: none"> • Carry out enforcement action where required to ensure that occupiers meet their obligations to control pest plants.
<p>4.8 Annually undertake not less than 200 hours of Containment Control pest plant surveillance by 30 June. (1)</p>	<p>A total of 1042 hours of surveillance work was carried out for all Containment Control pest plants combined. Out of that total, 790 hours were spent on Chilean Needle Grass surveillance covering 98 properties. Chilean Needle Grass was found and destroyed on 65 of those properties. The other 252 hours were spent conducting surveillance for Reed Sweet Grass (20 hours) and Nassella Tussock (232 hours).</p>		<ul style="list-style-type: none"> • Any spread of pest plants to be recorded by GPS or field map notation and captured on the Marlborough District Council GIS for later mapping and area calculation.


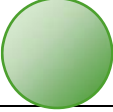





<p>4.9 Annually complete all Reed Sweet Grass control programmes by 30 June.</p>	<p>All Reed Sweet Grass control operations were completed. Gibson Creek, Roberts, Pukaka and Marukoko Drains were targeted twice to control any regrowth.</p> <p>The site at Langleydale is still subject to control work by handgun, due to the persistent density of regrowth from the plant's rhizomes. This is expected to continue for some time.</p> <p>The D'Urville Island site was visited in 2015/2016 and will be targeted again in 2016/17 due to the higher than expected number of plants. This has changed previous plans to target the D'Urville Island infestation on a biannual basis, based on the low numbers of plants found in previous years.</p>		<ul style="list-style-type: none"> Continue to progress the Reed Sweet Grass control programme on D'Urville Island as well as those sites on the mainland.
<p>4.10 Annually complete planned control operations for Pinus Contorta by 30 June.</p>	<p>A single control operation for wilding conifers was planned for 2015/16. This was to target areas with tree densities too high for efficient use of the aerial spot spraying technique from a helicopter.</p> <p>The on-ground work commenced on 4 April 2016, with over 8000 conifers destroyed. The operation was ceased earlier than intended due to concerns with operational best practice be affected by the cooling weather conditions.</p> <p>The remainder of this operation is targeted for completion in spring 2016 when the environmental conditions are more favourable to the control work is effective as possible.</p> <p>On 30 June 2016, an aerial surveillance operation was undertaken in another catchment adjacent to the Wye Reserve, to assist in the planning of future control operations.</p>		<ul style="list-style-type: none"> Plan and target specific areas of control where Pinus contorta has spread from the containment area.




Figure 3: A Biosecurity Officer discovering a nest of un-controlled Nassella Tussock during a routine property inspection.



Figure 4: Excellent land occupier control work for Nassella Tussock observed during a routine property inspection.

Objective			
To minimise the impacts that feral Rabbits have on pasture production, crops, forestry plantations and soil conservation values in Marlborough by maintaining feral pest Rabbit populations at levels at or below the maximum allowable level (MAL) identified for the two sub-regions, the 'Upper Awatere/Clarence' and the 'Remainder of the area within the District'.			
Performance Targets	Reporting	Performance	Action Taken to Meet Target
4.11 Annually create a schedule of 'high risk' properties requiring inspection by 31 January each year.	A schedule of high risk properties was created prior to 31 January 2016.		<ul style="list-style-type: none"> Identify a geographical representative sample of properties deemed 'high risk' of Rabbit population increase by 31 January and implement an inspection regime. Where Rabbit infestations exist above the maximum allowable level, issue advice and, where possible, provide an adaptive management approach to ensure the land occupier can meet their responsibilities. If this issue persists, issue a Notice of Direction.
4.12 Undertake annual inspections on properties deemed high risk by 30 June.	A total of 33 property inspections were undertaken to assess Rabbit population levels.		
4.13 Prepare and distribute a Notice of Direction to land occupiers where populations persist above the MAL for greater than 12 months from the problem being identified and advice provided.	No Notices of Direction were required.		
4.14 Less than 2 land occupiers are known to be in breach of the ≤ MAL 4 Strategy rule as at 30 June each year.	No properties are known to be in breach of the ≤ MAL 4 Strategy rule.		
4.15 Less than 6 land occupiers are known to be in breach of the ≤ MAL 3 Strategy rule as at 30 June each year.	No properties were found to be in breach of the ≤ MAL 3 Strategy rule.		
4.16 Annually undertake trend monitoring across the 13 established night count transects by 30 June.	All of the 13 transects were completed this season.		

Objective			
To prevent the establishment of Possums on offshore islands in the Marlborough Sounds.			
Performance Targets	Reporting	Performance	Action taken to meet Target
4.17 Respond to reported sighting of Possums on offshore islands within 5 working days.	No sightings have been reported.		<ul style="list-style-type: none"> • Solicit public feedback on any Possums sighted 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.

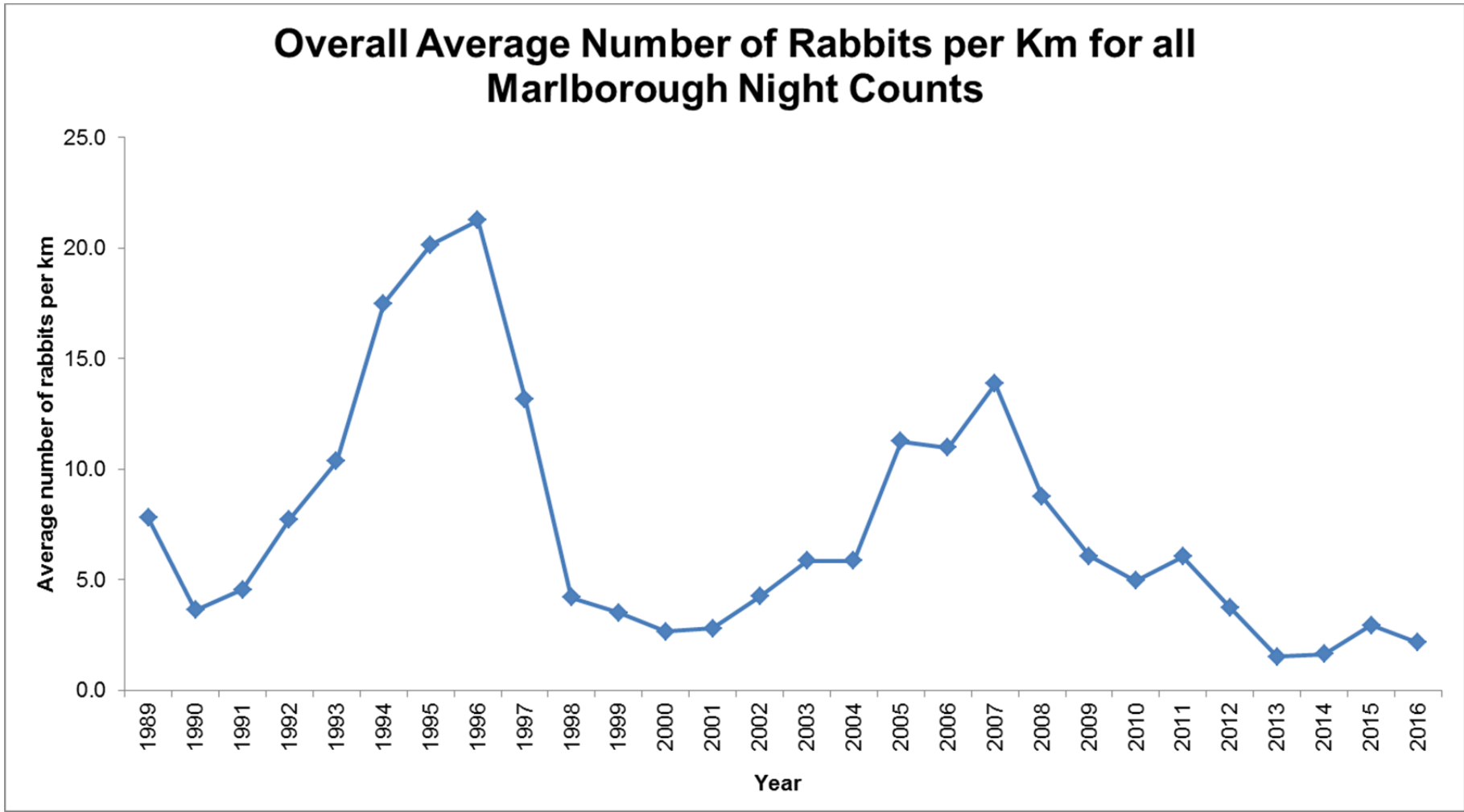







Figure 5: Overall results from the Marlborough Rabbit Night Counts

5. Surveillance

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	Reporting	Performance	Action Taken to Meet Target
5.1 Undertake surveillance activities to evaluate pest distribution and impacts for invasive ant species and report findings by 30 June each year.	Monitoring and subsequent control work was undertaken at the Rarangi foreshore and residential site for Argentine Ant infestation in collaboration with the Department of Conservation. Surveillance was also undertaken on a new site on Port Underwood Road to identify and confirm the distribution of the infestation at the site.		<ul style="list-style-type: none"> Inspect properties to determine their pest status. 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.
5.2 Annually undertake not less than 100 hours of surveillance for pest spread, other than Total Control pest species, outside known sites and evaluate pest distribution and impacts. (1)	<p>Council Biosecurity staff carried out 53 hours of active surveillance work as follows; Tall Wheat Grass 12.25 hours, Purple Loosestrife 15 hours, Rough Horsetail 10 hours, Cotton Thistle 1.75 hours and 6.5 hours of surveillance work was carried out by punt on the Opaoa Loop (during which a new site of Purple Loosestrife was found).</p> <p>An additional 45 hours of passive surveillance for aquatic weeds was carried out during contractor audits post Reed Sweet Grass control in Gibson Creek, and the Wairau Drains.</p> <p>A re-occurrence of Parrots Feather was also found in the Lower Opaoa, where the pest status of that site was previously thought to be historical.</p>		<ul style="list-style-type: none"> Record new and update existing pest distribution on the Marlborough District Council's GIS database. Utilise contract services to assist in the undertaking of control/ surveillance work for pest plants and animals.

<p>5.3 Update records, within 5 working days of finding or being informed of any pest plant or pest animal, while carrying out surveillance</p>	<p>A report was received in May 2016 of a dead Wallaby carcass located on State Highway 63, near the Wash Bridge. Unfortunately, the report was received some 3 weeks after an initial public report was submitted to the Department of Conservation. Therefore the carcass was not in a condition to be physically examined. However, within 2 days of the report being received by Council, Biosecurity staff conducted surveillance in the surrounding area looking for Wallaby sign, with no sign found. While not definitive, the appearance of the carcass was put down to a dumping hoax.</p>		
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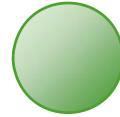
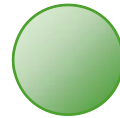
6. Ecological Threats

Objective			
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	Reporting	Performance	Actions Taken to Meet Target
6.1 Provide annual support to land occupiers where pest animal/plant issues have been identified as a threat to the integrity of a designated Significant Natural Area (SNA) on their property.	Thirteen on-going weed control projects were completed on sites that had previously had protection works implemented. This includes Council support toward a community weed control initiative (targeting Old Man’s Beard) in the Waima/Ure Valley.		<ul style="list-style-type: none"> The Marlborough District Council has a voluntary landowner assistance programme applying to significant natural area sites, which includes pests/weed threat works. The Marlborough District Council actively supports community led pest management initiatives.
6.2 To encourage community led pest management initiatives.	<p>Active support has been provided to the following community groups:</p> <ul style="list-style-type: none"> Waima Valley Ecological Restoration Society - funding (via SNA programme) and in-kind support Grovetown Lagoon Restoration Project - funding (Weedbusters grant) and in-kind support. Marlborough Sounds Restoration Trust - providing an annual contribution toward the wilding pine control programme and in-kind support by way of mapping and GIS services. South Marlborough Landscape Restoration Trust - providing in-kind support in the development stages of the Trust, with financial support approved starting in 2016/17 		





7. Educational Activities

Introduction

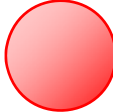


The Marlborough District Council recognises the advantages of a strong advisory and educational role in pest management and therefore takes a very active role in providing information and advice on the various impacts caused by pests and the best methods for controlling animal and pest plants.

Objective			
To educate the public in the identification of regional plant and animal pests and promote and encourage the most appropriate management and control options.			
Performance Targets	Reporting	Performance	Actions taken to meet Target
7.1 Annually review and, where necessary, publish/refresh pest fact sheets for pests listed in the Regional Pest Management Strategy.	No new fact sheets have been prepared due to the pending review of the Strategy. Existing publications and fact sheets have been distributed at every opportunity.		<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. Continue to provide input into the Ministry for Primary Industry-led Chilean Needle Grass Working Group. Liaise with the Marlborough District Council's website manager to coordinate website updates.
7.2 Annually organise and attend at least one pest specific focus group meeting and at least one pest related field day.	<p>Marlborough District Council Biosecurity staff have attended the following public events:</p> <ul style="list-style-type: none"> Marlborough A&P Show 6-7 November 2015 focusing on Chilean Needle Grass awareness Flaxbourne Show (in support of Chilean Needle Grass Action Group) 26 March 2016 <p>A staff member also attended the National Field Days at Mystery Creek from 14-17 June 2016 as part of the CNG and Farm Biosecurity awareness coordinated by Environment Canterbury.</p> <p>A specific meeting was facilitated by Biosecurity staff in Seddon on 25 February 2016 to discuss the Nassella Tussock programme in Marlborough.</p> <p>The Chilean Needle Grass Action Group continues to hold regular meetings with Biosecurity staff attend and assist facilitate.</p>		
7.3 Each year, review the overall structure and scope of information on the Marlborough District Council's website and initiate updates by 30 June.	New newsletters and updated current information on control techniques and information have been added to the appropriate web pages as they come through.		

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	Reporting	Performance	Actions Taken to Meet Target
8.1 Agree on annual biological control programme outcomes in conjunction with the Biological Control Collective Group by 31 July each year.	The Marlborough District Council continued to support a National Biocontrol Programme managed through the Biological Control Collective Group and implemented by Landcare Research. A work programme and contract was put in place by 31 July for the 2015/2016 financial year.		<ul style="list-style-type: none"> Contribute to the collective biological control programme managed by Landcare Research. Assist Landcare Research to complete nationwide assessment of Ragwort biocontrol agents
8.2 If requested, and if feasible, provide biological control agents which have established in the region to occupiers on request for the purpose of further distribution.	One request was received for a release of the Nodding Thistle crown weevil from a landholder in the Awatere Valley. It was determined that, given the prevalence of the weevil in the wider area, the situation did not warrant the inputs required to implement a harvest/release. Traditional control methods would be more suitable to address a localised "flare-up".		<ul style="list-style-type: none"> Monitor the distribution of biological control agents and harvest and release biological control agents where required to enhance their distribution. Undertake serological sampling of Rabbits to assess immunity status against the Rabbit Haemorrhagic Disease (RHD).
8.3 Monitor and gather information on the establishment of any new biological control species released within the region by 30 June each year.	All release sites of the three Tradescantia agents release over the last 5 years (leaf beetle, tip beetle and stem beetle) we monitoring in 2015/2016. For the first time, feeding damage was observed at a release site in the Waikakaho Valley. This site has had both the stem beetle and leaf beetle released. The feeding damage was evident but in a localised area of the site.		
8.4 Complete Rabbit Haemorrhagic Disease (RHD) immunity level survey by 30 June each year.	Due to low Rabbit levels, a full RHD survey (3 sites) was not possible this year. As a result, one site was selected - Avondale area. A full sized sample was managed off one property.		


9. National Pest Plant Accord

Objective			
To prevent the sale, distribution or propagation within New Zealand of any plant pest listed in the National Plant Pest Accord.			
Performance Targets	Reporting	Performance	Actions Taken to Meet Target
9.1 Undertake a minimum of 4 casual plant outlet inspections annually by 30 June.	A total of 1 inspection was carried out on casual outlets selling plants, such as roadside stalls, car boot sales and markets. This inspection of a home gardener selling plants from their property identified Pig's Ear (<i>Cotyledon orbiculata</i>) on site and potted up. The owner voluntarily removed the plants for destruction.		<ul style="list-style-type: none"> Inspect casual plant outlets for banned plants. Inspect commercial retail outlets for banned plants. Ensure compliance with obligations. Promote a strong advisory and educational role in association with the National Pest Plant Accord. Record and report inspection results to the Ministry for Primary Industries. Ensure all inspections are carried out by a warranted officer.
9.2 Inspect a single, selected commercial retail outlet each year by 30 June.	Five commercial outlets were inspected. No National Pest Plant Accord listed species were found to be for sale.		
9.3 Respond to all complaints relating to the sale of National Pest Plant Accord listed plant species within 3 working days.	No complaints about the sale of National Pest Plant Accord plants were received.		

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 district.			
Performance Targets	Reporting	Performance	Actions Taken to Meet Target
10.1 Ensure all research activities being undertaken or committed to be approved and involvement documented by 30 June each year.	<p>The major research project to gather further residue and efficacy data for Taskforce herbicide continued in 2015/2016.</p> <p>This year saw final assessments made in the field efficacy trials and final samples collected in the soil/herbage residue trials and vineyard residue trials. All analysis and reporting is being carried out and will be presented in due course. New financial support was provided in 2015/2016 from the Ministry for Primary Industries through the Chilean Needle Grass Partnership.</p> <p>A new collaborative research project between Marlborough District Council, Environment Canterbury, Hawkes Bay Regional Council and AgResearch was established this year. This project follows on from lab-based trials determining the most suitable pastoral species that can be sown into ground treated with flupropanate (Taskforce herbicide). All trial sites were sown down in January 2016 and, with additional watering, are now established and will be closely monitored over the ensuing 1-2 years.</p> <p>Council has again provided financial support toward the Wasp biocontrol SFF project. 2015/16 was the second year of a 3 year project.</p> <p>Targeted practical research to determine most appropriate control methods for Tall Wheat Grass.</p>		<ul style="list-style-type: none"> • Evaluate proposals and gain approval for any expenditure. • Verify appropriate use of budget and ensure outcomes are documented and reported. • Plan and undertake research trials in a cost effective manner.

	<p>This was carried out in autumn 2016 and involved two different herbicide treatments, coupled with over sowing. Assessments are ongoing.</p> <p>Support was pledged toward a new SFF project with the aim to develop a release strategy for new strains of RHDV (Rabbit Haemorrhagic Disease Virus). This project got approval and will be commencing in 2016/17. The release strategy will be implemented when approvals have been obtained to import and release the RHDV1-K5 recently approved for release in Australia.</p>		
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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	Reporting	Performance	Actions Taken to Meet Target
11.1 Implement activities relating to the Freshwater Pest Partnership Programme by 30 June each year.	Fish & Game were again contracted to deliver the Summer Freshwater Pest Advocacy programme in Marlborough. Fish & Game either employed or contracted resources to deliver both the Nelson/Tasman and Marlborough programmes. Deliverable included attendance at numerous events along with a large amount of waterside advocacy carried out over the summer.		<ul style="list-style-type: none"> Support National Freshwater Pest Partnership Programme in partnership with support from the Ministry for Primary Industry. Attend committee and partnership meetings of the Top of the South Marine Biosecurity Partnership as well as provide financial support.
11.2 Provide on-going support in the implementation of the Top of the South Marine Biosecurity Strategy.	<p>Active participation and agreed funding was supplied to the Top of the South Marine Biosecurity Partnership throughout the year.</p> <p>Numerous operational activities were managed by Marlborough District Council staff in relation to the ongoing local elimination attempt in Picton Marina for Mediterranean fanworm. There has also been extensive surveillance activities carried out in Waikawa Bay, and targeted surveillance at Duncan Bay.</p> <p>The targeted surveillance at Duncan Bay was carried out in November 2015 as a result of the vessel detected in Waikawa earlier in year being moored here over the previous summer period. Unfortunately, <i>Styela clava</i> was found in small numbers but throughout the bay on substrates.</p> <p>An intensive dive survey was carried out in Picton Marina over December and January 2015/2016. Three Mediterranean fanworm were found and removed from the marina.</p>		<ul style="list-style-type: none"> Led the 'regional response' to incursion of marine pests into Marlborough waters.

	<p>Extensive surveillance was carried out in Waikawa Bay over May and June 2016 as a result of the previous find of a vessel infested with Mediterranean fanworm in February 2014. No animals were found in the environment however another vessel with both fanworm and <i>Styela clava</i> on its hull was detected (see Figure 3). An immediate response was instigated and the risk was addressed through voluntary action by the vessel owner.</p>		<ul style="list-style-type: none">•
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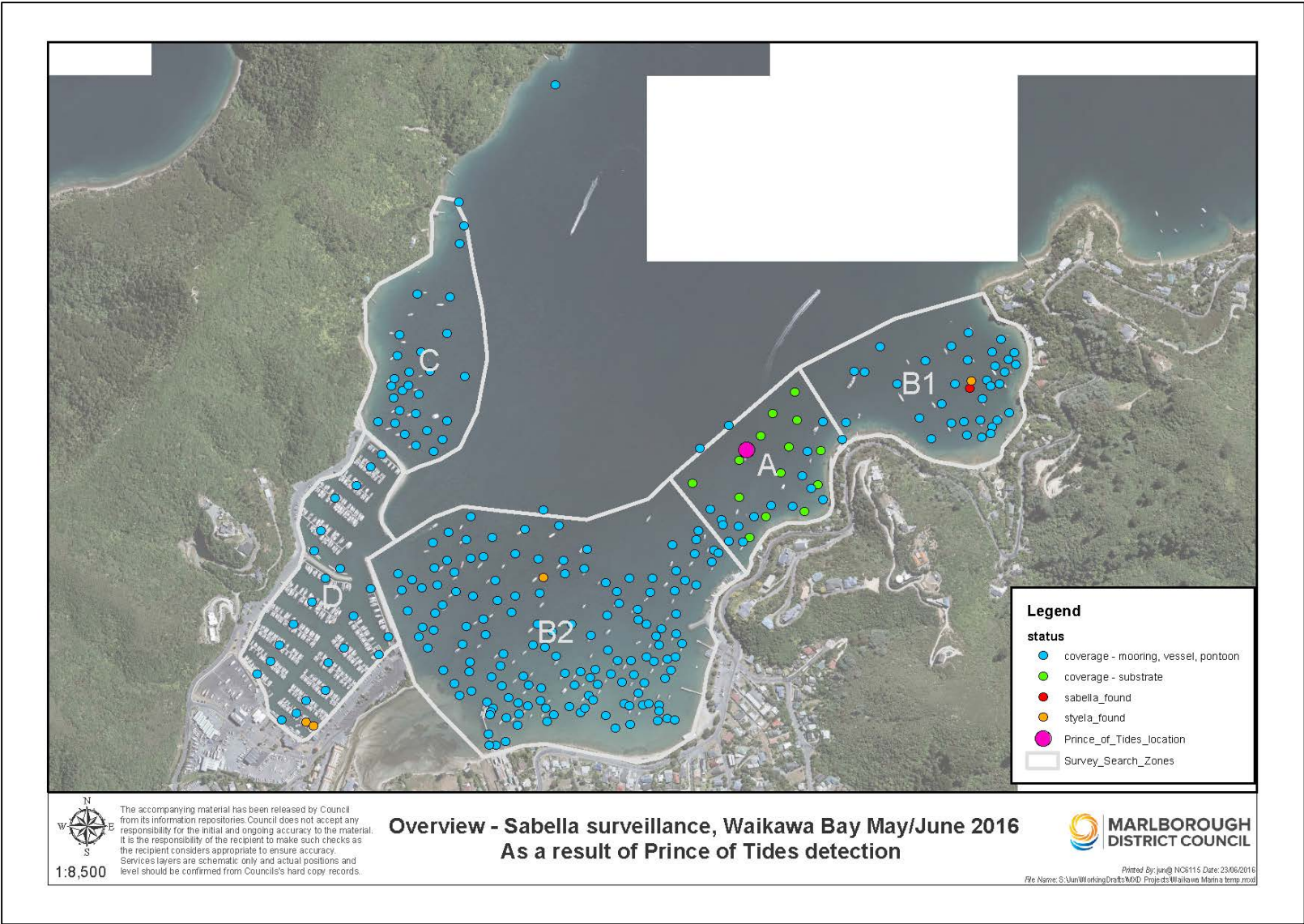


Figure 6: Overview of the input and results of marine pest surveillance in Waikawa Bay carried out in May/June 2016.



Figure 7: The second vessel detected in Waikawa Bay in June 2016, with both Mediterranean fanworm and *Styela clava* on its hull.
Inset - one of the small juvenile fanworm amongst some macro-fouling on the hull.

12. Review of the Operational Plan

In accordance with Section 100B(1)(b) of the Biosecurity Act 1993, a review of the Operational Plan was carried out on 16 August 2016. Some amendments were deemed necessary in accordance with Section 100B(1)(c). The proposed amendments to the Operational Plan 2013-2017 are outlined below:

Section	Current Target	Proposed Target	Reason
3.4	<i>New target</i>	Across all high priority sites for Parrots Feather, infestations require less than 50 litres of herbicide mix to manage.	The existing target 3.3 prevents the ability to report on the Parrots Feather programme as using 'plants destroyed' as the method of monitoring is not feasible for Parrots Feather.
3.5	<i>New target</i>	Across all high priority sites for Eel Grass, less than 100 kilograms of material is removed as part of control operations.	The existing target 3.3 prevents the ability to report on the Eel Grass programme as using 'plants destroyed' as the method of monitoring is not feasible for Eel Grass.
4.2	Annually inspect a combined minimum of 85% of Nassella Tussock, Kangaroo Grass and White-edged Nightshade sites to confirm the issued control programme has been completed to standard.	Annually inspect a combined minimum of 70% of Nassella Tussock, Kangaroo Grass and White-edged Nightshade sites to confirm the issued control programme has been completed to standard.	Due to ongoing developments relating to prioritisation, the number of sites requiring physical inspection each year is now lower than in the past. The new target represents a more realistic level of physical inspection.
4.9	Annually complete all Reed Sweet Grass control programmes by 30 June.	Carry out control operations across all high priority Reed Sweet Grass sites each year by 30 June.	Improved wording to make the target more specific and to incorporate the use of new systems that assist with prioritisation.
4.16	Annually undertake trend monitoring across the 13 established night count transects by 30 June.	Annually undertake trend monitoring across the 14 established night count transects by 30 June.	A new night count is targeted for establishment in 2016/17 and for use into the future for trend monitoring.
8.3	Monitor and gather information on the establishment of any new biological control species released within the region by 30 June each year.	Monitor and gather information on the establishment of all biological control agents (ex lab stock) released within the region within the previous 5 years, by 30 June each year.	Improved wording to make the target more specific and to focus on new releases from laboratory stock where monitoring establishment is more relevant. Re-releases are from well-established agents.
10.1	Ensure all research activities being undertaken or committed to be approved and involvement documented by 30 June each year.	As opportunities arise, document, approve and report upon all research initiatives undertaken to or committed to support by 30 June each year.	Improved wording to make the target more specific.

13. Monitoring and Review of the Strategy

The Strategy specifies how the effect of the Strategy is to be monitored throughout its 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.

A combination of techniques is used to measure the effectiveness of the Strategy in terms of achieving its stated objectives.

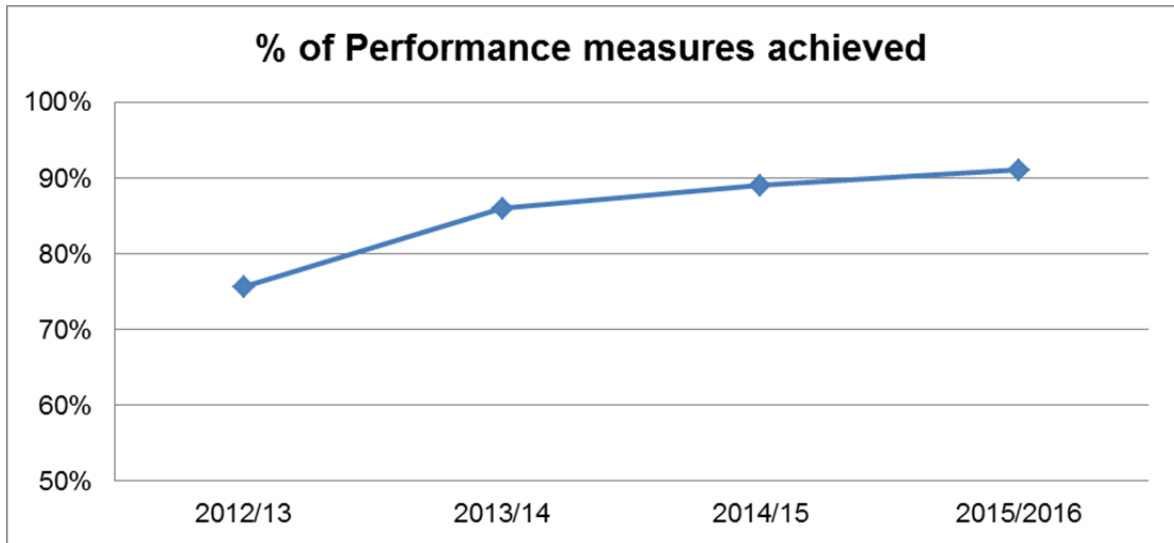
1. Long term monitoring - for example, Rabbit trend monitoring.
2. The analysis of outputs:
 - a) The level of non-compliance for landholder obligation programmes. The analysis of non-compliance can be used as a proxy for the progress against the objective of each programme.
 - b) Whether plants are found and destroyed for Total Control species. The number of plants destroyed each year for Total Control species is used to track the status of both the sites where plants are found and the quantum of the infestation across Marlborough.

14. Performance Overview

Overall scoring of performance objectives (excluding those that are not applicable):

Measure	2015/2016 Score
 Achieved	32 (91%)
 Almost Achieved	2 (6%)
 Not Achieved	1 (3%)
	35 (100%)

14.1. Performance Trend



Appendix 1 - Total Control Pest Plant Data Trends

