

Regional Pest Management Strategy Operational Plan Report

2017/2018



**MARLBOROUGH
DISTRICT COUNCIL**

Cover Photos

Front cover: Infestations of both parrots feather (*Myriophyllum aquaticum*) and reed sweet grass (*Glyceria maxima*) in Ruakanakana (Gibson's Creek) before intensive management began.

Rear cover: Mediterranean fanworm (*Sabella spallanzanii*) detected growing on vessel hull largely free from biofouling except for small patches where anti-foul paint was not applied.



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Report Prepared by:
Jono Underwood
Biosecurity Manager
Environmental Science & Monitoring Group

Marlborough District Council
Seymour Square
PO Box 443
Blenheim 7240
Phone: 520 7400
Website: www.marlborough.govt.nz

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Executive Summary

Almost all (90%) of performance measures have been achieved throughout the year. This is an increase on the previous year where 84% of measures were achieved.

The work of the Biosecurity Team at Council continues to fulfil the requirements generated by both long-running programmes and new and emerging issues to protect the region from the impacts of invasive species. A key long running programme is the management of 'Total Control' species that are in very low abundance across a small number of sites but have the potential to cause serious impacts in the future. A programme to undertake all the required interventions was delivered very effectively in 2017/18, in parts in conjunction with the Department of Conservation.

Some of the more labour intensive programmes working with landholders managing widely distributed by higher threat pastoral species continue to provide for long term protection from these threats. Progress continues to be made in keeping the duo of invasive tussocks (Chilean needle grass and nassella tussock) under broad scale management via a comprehensive inspection programme and community engagement.

Council continues to invest into direct research projects and biological control research projects that have the potential to provide long term relief from more widely established invasive species. This investment has seen progress learning more about agents that could target *Vespula* species of wasps, release of the Rabbit Haemorrhagic Disease Virus (RHDV) K5 strain, and release of a traditional agent in the White Admiral Butterfly to battle the invasive weed Japanese honeysuckle. While proving challenging to find suitable agents, investment is also being made into research to identify agents for Old Man's Beard.

The threat from marine pests always present and efforts continue to both support the functioning of the Top of the South Marine Biosecurity Partnership and deliver an operational programme. The operational programme continues with an aim to prevent the establishment of Mediterranean fanworm as a primary objective. This year saw continued diver survey effort and also the interception of vessels that posed a risk of introducing marine pests.

Another key challenge being navigated by the Biosecurity Team is the future threat from wilding conifers. There has been heavy involvement by Council staff with the National Wilding Conifer Control Programme (NWCCP) coordinated by Biosecurity New Zealand. This has been focussed around the work occurring on Molesworth Station but has also meant ongoing facilitation of many parties and players undertaking this work such as the two community trusts and neighbouring regions.

While not part of the Operational Plan, a milestone this year has been the delivery of a process to review the former Regional Pest Management Strategy and introduce the new Regional Pest Management Plan 2018. This will result in a replacement Operational Plan being produced that will provide for a much more comprehensive reporting platform moving forward.

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 (the Act) 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.

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.

This will be the last Operational Plan Report under this Strategy given a review has been undertaken to make the new Regional Pest Management Plan 2018 which replaces the former Strategy.

1.1. Purpose of Operational Plan Report

The Operational Plan for 2013-2017 was prepared in accordance with Section 100B of the Act 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 2017/18 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 biosecurity activities.

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

2. Pest Management Programmes

2.1. Introduction

The Strategy contains programmes for 33 plant and 4 animal species because they cause, or are capable of causing, a significant negative impact on Marlborough's economy and/or environment. In doing so, these species are then classified as "pests" as defined by the Act. 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 many 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.

The 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		



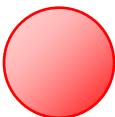

2.3. Animal Pest Status

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. The 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⁾	Total Control work was completed by 30 June 2017. 98% of all priority sites were inspected. All sites were visited with the exception of two (low level infestation) boneseed sites which were not visited for operational reasons. All spartina sites were visited, but the work activities were recorded as surveillance work.		<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⁾	665 hours of surveillance work was carried out for the 16 Total Control pest plant species in the current Regional Pest Management Strategy. 596 hours of this surveillance work was attributed to the Spartina Programme. An additional 88 hours of surveillance work was carried out for pest plants proposed as new Programmes for the new RPMP. These include purple loosestrife, woolly nightshade, rough horsetail, and cotton thistle. Given the isolated nature of the infestations, operationally these pest plants have been managed as Total Control Pest Programmes under the current Strategy. Under the new RPMP, these species will all be managed under a new programme. This will also change the future reporting structure for Council Biosecurity.		

⁽¹⁾ An operational target that links to the Council Annual Plan targets.

<p>3.3 A measured decline to <5500 pest plants destroyed annually over all High Priority sites by 30 June. ⁽¹⁾</p>	<p>7800 'Total Control' pest plants were controlled during the last financial year. This compares to 3000 during 2016/2017 and 6000 in 2015/2016.</p> <p>The increase in 2017/2018 can be attributed to the number of Boneseed plants found. Boneseed numbers dropped significantly during 2016/2017 but increased in 2017/2018 due to the discovery of a new infestation within a geographical area known for Boneseed. See Appendix 1 for individual plant trends, and ratio trends for Boneseed controlled per man-hour of effort).</p> <p>The amount of Moth plant found was also a key contributor; 1867 plants were destroyed (including seedlings), 530 of the plants destroyed were found at 14 new sites. However, 31 Moth plant sites were re-categorised as 'historical'. The overall trend shows a steady decline in 'monitoring' and 'active' Moth plant sites since 2015, conversely the numbers of historical infestations have increased.</p>		
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<p>3.4 Across all high priority sites for Parrots Feather, infestations require less than 50 litres of herbicide mix to manage.</p>	<p>A large Parrots feather infestation found in the Opaoa during 2016/2017 has been brought under control. Biodegradable carpet was used to smother the dense mass of rhizomes. This was deemed successful, only 28 litres of herbicide mix was required this season to bring the regrowth under control.</p>		
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<p>3.5 Across all high priority sites for Eel Grass, less than 100 kilograms of material is removed as part of control operations.</p>	<p>Eel Grass control was undertaken in Waterlea Creek resulting in the removal of 12 kilograms of material. The Opaoa Loop was also surveyed by punt, and no plants were found. No eel grass has been found in the Opaoa loop since 2013, and the pest status of the site has been changed to 'historical'. It is expected that surveillance work will continue, but every second year to ensure no plants re-emerge.</p>		
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Objective			
To ensure Rooks do not establish in Marlborough.			
Performance Targets	Reporting	Performance	Action taken to meet Targets
3.6 Annually monitor all sites that previously had Rooks in residence with the last 10 years and investigate any sightings within 2 working days.	There have been no sightings or sign of activity at these sites. Phone calls were made to all landowners where there have been some activity in recent years. No sightings were reported to the 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.
3.7 Undertake a public awareness campaign annually in Spring to facilitate sightings of Rooks.	Public awareness via web site and fact sheet.		

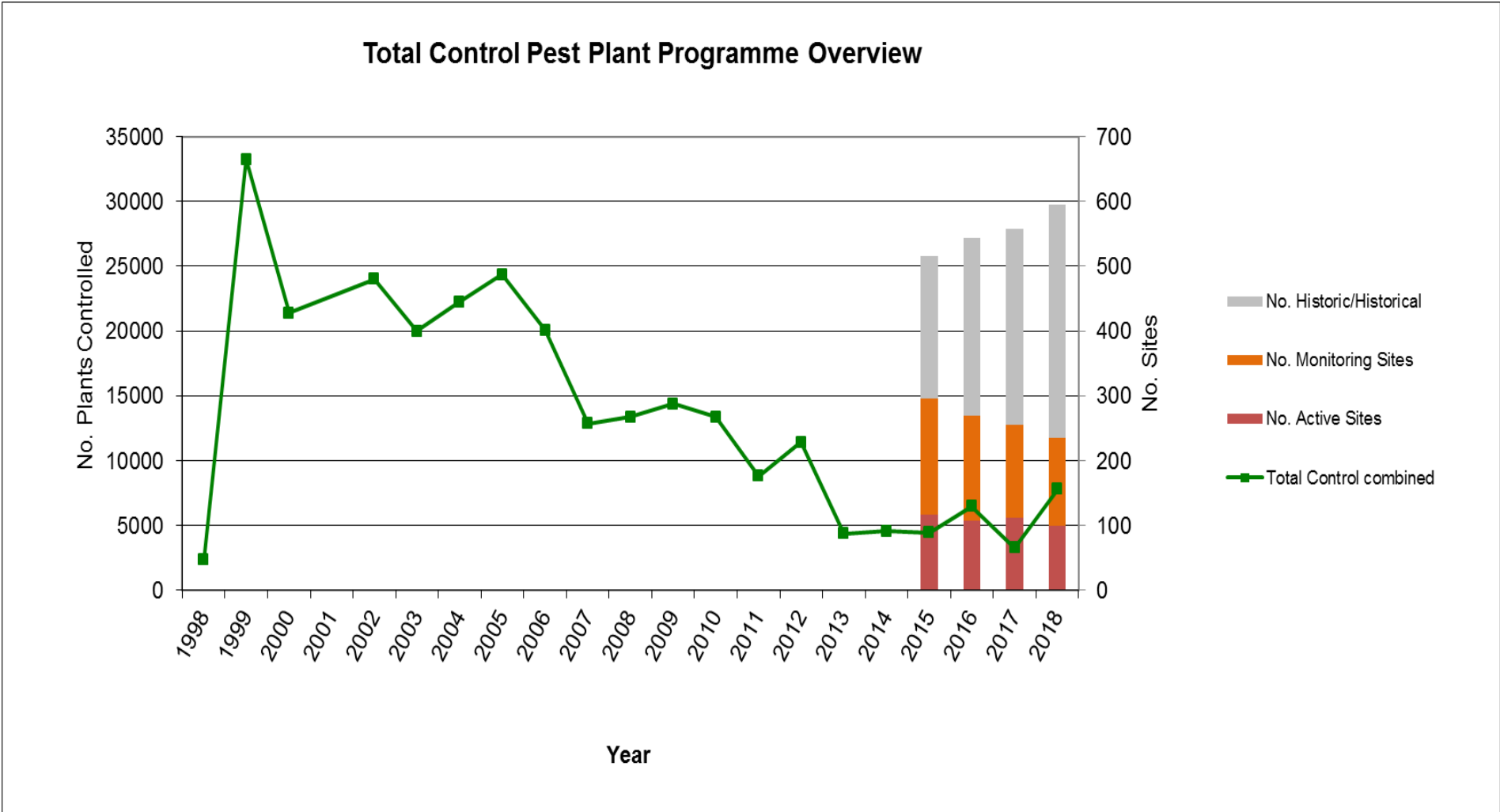










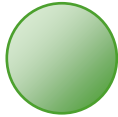

Figure 1: Total Control Pest Plants Trend

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 2017.</p> <p>375 Control programmes were issued to land occupiers with Nassella tussock, 11 Programmes for kangaroo Grass, and 4 for White Edged Nightshade.</p> <p>66 Control programmes were issued to land occupiers with Chilean Needle Grass on Core and Fringe sites.</p>		<ul style="list-style-type: none"> Annually prepare control programmes for all land occupiers where active facilitation by the Marlborough District Council is warranted.
4.2 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. (1)	<p>A total of 281 sites were inspected for compliance. (275 for Nassella Tussock, 8 for Kangaroo Grass, and 3 for White-edged Nightshade)</p> <p>286 or 73 % of properties issued with a control programme were inspected.</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 40 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.
4.4 Annual contact is made with 100% of Chilean Needle Grass Core sites to either inspect for compliance or undertake education/assistance activities.	All 26 Core sites for Chilean Needle Grass were inspected for compliance.		<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 the Marlborough District Council undertakes strategic management.</p>	<p>Surveillance occurred at 100% of these sites and control undertaken where necessary this season.</p>		<ul style="list-style-type: none"> Plan and implement a programme of service delivery works to ensure the best possible control success is obtained.
<p>4.6 Investigate any new reports of potential Chilean Needle Grass infestation within 2 working days.</p>	<p>All new reports of Chilean Needle Grass which were all investigated within 2 working days.</p>		<ul style="list-style-type: none"> Rapidly investigate any report of new infestations to ensure control actions can be implemented if confirmed as a new Chilean Needle Grass infestation, as is appropriate.
<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>A total of 6 land occupiers were issued with a Notice of Direction due to non-compliance with a Strategy rule. As a note, a further 2 Notices of Direction were issued in relation to issues that were identified by officers which could affect the achievement of Strategy programme objectives.</p>		<ul style="list-style-type: none"> Carry out enforcement action where required to ensure that occupiers meet their obligations.
<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 2032 hours of surveillance occurred for Containment pest plants in 2017/18. This was made up of:</p> <ul style="list-style-type: none"> - 177.30 hours for Nassella Tussock - 1798 hours for Chilean Needle Grass - 3 hours for Contorta pine - 51 hours for Kangaroo Grass 2.5 hours for Broom in the Upper Awatere Valley .5 hours for Reed Sweet Grass (in combination with conducting contractor audits) 		<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 Carry out control operations across all high priority Reed Sweet Grass sites each year by 30 June.</p>	<p>All Reed Sweet Grass (RSG) control operations were completed at all high priority sites, including the Wairau drains (Roberts, Pukaka and Marukoko Drains), Langley Dale, Grove Lagoon and the Ruakanaka Creek.</p> <p>The amount of herbicide used for control work during 2017/2018 has reduced significantly compared to the previous year. This appears to correlate to amount of (RSG) found at Langley-Dale this year, where the result of four years' control work is now evident in the reduced density of the RSG.</p> <p>No new infested sites have been found in the last four 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>Wilding conifer control operations resumed in 2017/2018 to minimise the spill over effects from the Wye Reserve Contorta Containment area. The work was focused in the McArthur Block to mop up outstanding control work from 2016/2017.</p> <p>The remaining work for 2017/2018 commenced in the top third of the Mosses operational area. Due to the numbers and size of the trees in the Mosses block, work is planned continue in that area for 2018/2019.</p> <p>For a year by year breakdown (2014-2018) of the areas controlled, refer to Appendix 1.</p>		<ul style="list-style-type: none"> Plan and target specific areas of control where Pinus contorta has spread from the Containment area.



Langley Dale 2014, a mono-culture of RSG



Langley Dale 2018, with the RSG under management other aquatic plants are making a comeback.

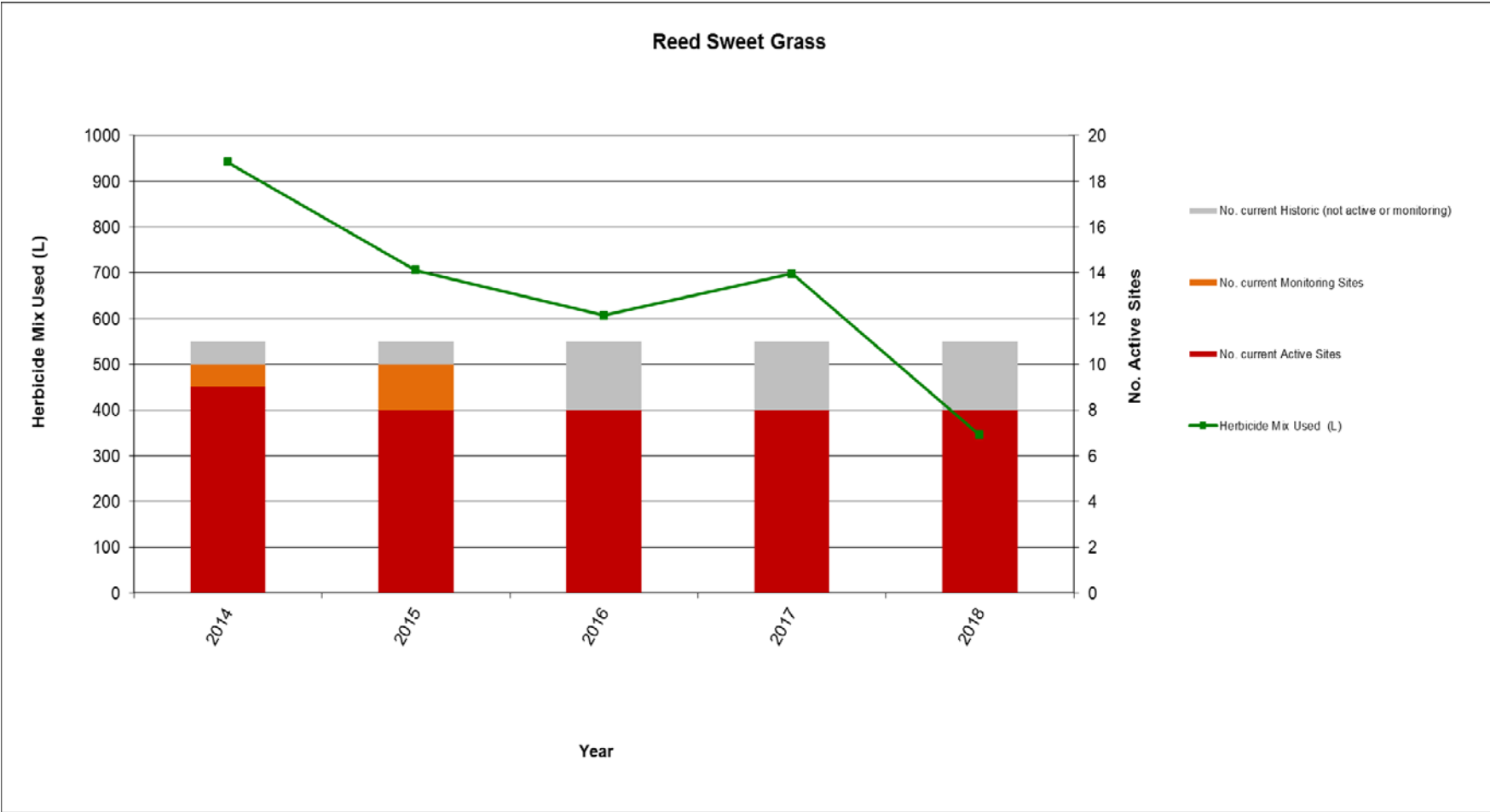









Figure 2: Reed Sweet Grass programme trend since accurate data collection began in 2014

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 2018.		<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 37 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 two 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 as at 30 June 2018.		
4.15 Less than six land occupiers are known to be in breach of the ≤ MAL 3 Strategy rule as at 30 June each year.	No properties are known to be in breach of the ≤ MAL 3 Strategy rule as at 30 June 2018.		
4.16 Annually undertake trend monitoring across the 13 established night count transects by 30 June.	10 of the 13 transects were completed this season. Flood damage and work pressure due to the RHDVK5 release prevented the last 3 being undertaken.		

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 reports received.		<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.

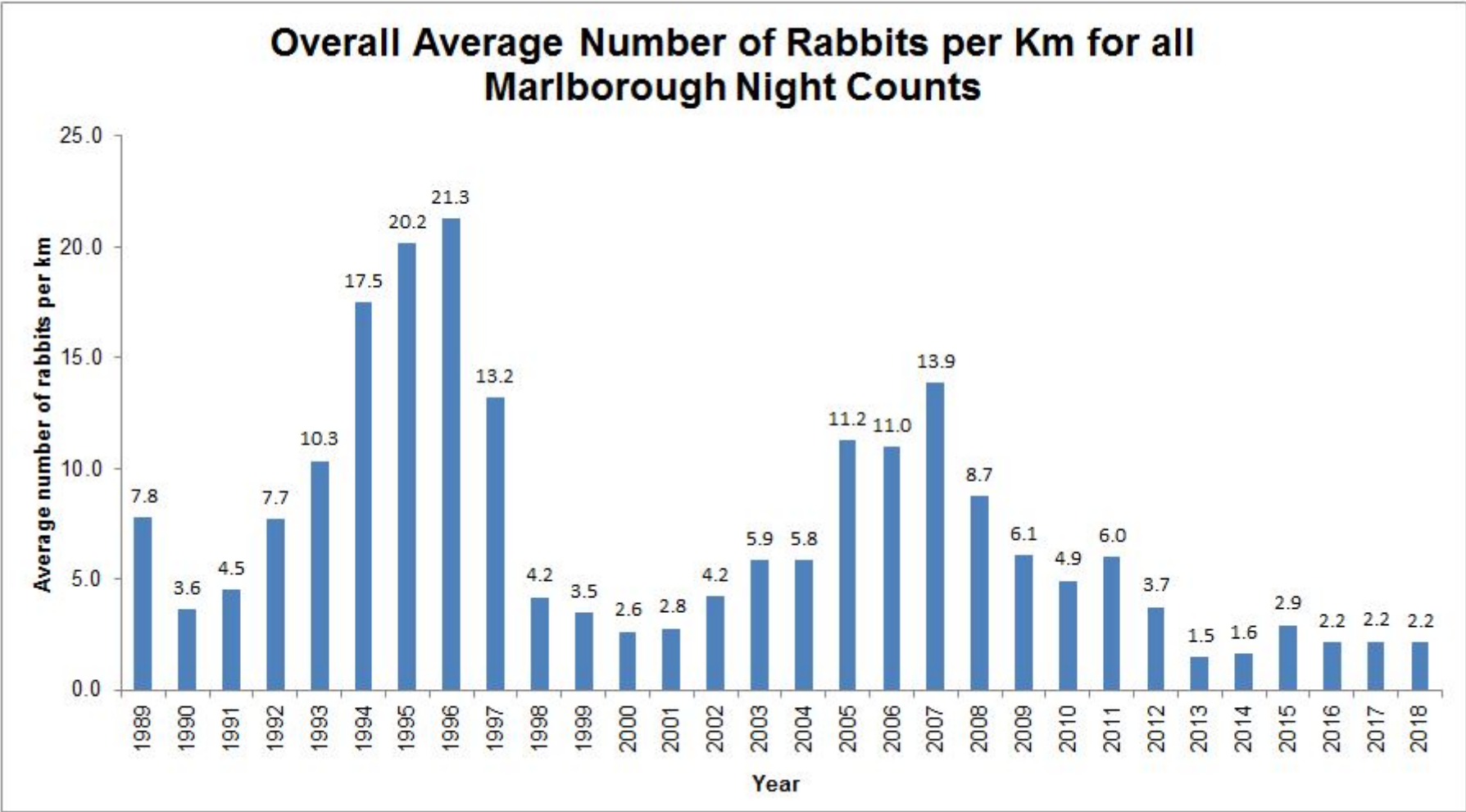

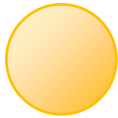





Figure 7: Overall trend for the Marlborough Rabbit night counts

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 sites for Argentine Ant infestations in collaboration with the Department of Conservation.		<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)	92.25 hours of surveillance was carried out for species such as Woolley Nightshade, Rough Horsetail and Purple Loosestrife. This was to confirm both distribution and infestation levels as known sites leading into potential longer term management.		<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.
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>A total of 97 various enquiries or complaints were received regarding either suspect organisms or other programme related issues.</p> <p>On average, first response was delivered by a member of the Biosecurity Team in 1.7 days of receiving contact.</p> <p>The plague skink was detected in Marlborough (and the South Island) for the first time in November 2017. Council Biosecurity staff in conjunction with MPI investigators delivered a comprehensive investigation over the summer months. With an established population confirmed in Riverlands, a joint agency response involving DOC, MPI and Council has now been established.</p>		




6. Ecological Threats

Objective			
<p>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.</p> <p>Note: These initiatives are predominantly delivered through the Marlborough District Council’s Land & Water Team and the Biodiversity Coordinator</p>			
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.	Support has been provided through the SNA programme to 14 different projects that relate to pest and weed control with an aim to protect and maintain the related SNA’s. Six of these projects related to the management of Old Man’s Beard which has been identified as a key threat to the value of remnant SNA’s in South Marlborough in particular.		<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 and in-kind support. Marlborough Sounds Restoration Trust - providing an annual contribution toward the wilding pine control programme. South Marlborough Landscape Restoration Trust - providing in-kind support and an annual contribution. Picton Dawn Chorus - grants have been approved for 2017/18 assist fund a coordinator. 		




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.

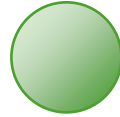
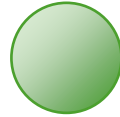

Objective			
To educate the public in the identification of regional plant and animal pests and promote and encourage the most appropriate management and control options.			
Performance Targets	Reporting	Performance	Actions taken to meet Target
7.1 Annually review and, where necessary, publish/refresh pest fact sheets for pests listed in the 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.
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 and Garden Fete November 2017 focusing on Chilean Needle Grass and biosecurity awareness. The Chilean Needle Grass Action Group continues to hold regular meetings with Biosecurity staff attend helping facilitate the meetings. A landholder meeting was attended by Biosecurity staff at the Lake View property on 19 May 2017 to discuss the implementation of nassella tussock programme. 		<ul style="list-style-type: none"> 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.
7.3 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.	<p>The Marlborough District Council continued to support a National Biocontrol Programme managed through the Biological Control Collective Group and implemented by Landcare Research.</p> <p>A work programme and contract was put in place by 31 July for the 2017/2018 financial year.</p> <p>The contract included the services provided by the Alan Herbarium at Lincoln. The plant identification services provided by the herbarium have assisted MDC biosecurity with the identification of potential new pest plants.</p> <p>Tall Wheat Grass (the subject of a new RPMP Programme) was identified in 2013 on behalf of MDC Biosecurity by herbarium staff.</p>		<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 • 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).
8.2 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.	<p>No official requests for Biological Control Agents were received.</p> <p>However, Council Biosecurity staff have released the white admiral butterfly which will assist to reduce the impacts of Japanese honey suckle.</p>		
8.3 Monitor and gather information on the establishment of any new biological control agents (ex lab stock) released within the region within the previous 5 years, by 30 June each year.	<p>Previous monitoring has shown that the biological control agents for Tradescantia have failed to make an impact on the weed. Most releases of the bio-control agents have failed to establish. The decision was made not to continue monitoring the biological agent for Tradescantia.</p> <p>In future years, monitoring will now shift to the white admiral butterfly.</p>		

<p>8.4 Complete Rabbit Haemorrhagic Disease (RHD) immunity level survey by 30 June each year.</p>	<p>No survey was undertaken this year due to the released of the RHDVK5. This release did involve some intensive work at the release sites.</p>		
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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 two casual plant outlet inspections annually by 30 June.	Two known casual plant outlet inspections were carried out in 2017/2018. No non-compliance issues were found		<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.	10 commercial outlets were inspected. No NPPA listed plants were found. However, Biosecurity staff did identify a line of <i>Dipsacus fullonum</i> , commonly known as 'wild teasel'. Wild teasel is recognised by AgResearch NZ as a pastoral pest. The retail outlet volunteered the removal and destruction of the plants, as advised by Council Biosecurity staff.		
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 As opportunities arise, document, approve and report upon all research initiatives undertaken to or committed to support by 30 June each year.	<p>The Marlborough District Council has continued to invest in various research projects in 2017/18. These were:</p> <ol style="list-style-type: none"> 1. The final year of a multi-year project assessing various pasture species sown into Taskforce treated pasture scenarios. This project is being conducted in conjunction with AgResearch, Environment Canterbury, Hawkes Bay Regional Council and the Ministry for Primary Industries. Close links are also being maintained with the Chilean Needle Grass Action Group with respect to oversight of the Marlborough trial sites. A final report has been prepared and submitted by AgResearch outlining the results. 2. Co-funding and project governance support was provided to a Sustainable Farming Fund (SFF) project being led by Landcare Research into developing a release strategy for improved strains of the Rabbit haemorrhagic disease virus in New Zealand. 3. A herbicide trial was set up within a core infestation of <i>Themeda triandra</i> (Kangaroo grass) to determine the efficacy of <i>sodium flupropanate</i> (Taskforce herbicide) on mature plants. Sodium flupropanate was applied at 3L/ha and 4L/ha. Australian literature reports that mature Kanagroo grass plants a largely 		<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>resistance to sodium flupropanate. The outcome of the trial work is yet to be determined.</p> <p>4. Co-funding provided toward another SFF project exploring potential biocontrol agents for <i>Vespula</i> wasps in New Zealand. Some very exciting early results are being seen in this project but, with all biocontrol projects, there are stringent processes over time to ensure agents are both effective and safe for release into the New Zealand environment.</p> <p>5. Marlborough District Council along with other partners was successful in a bid to the earthquake recovery fund for a biosecurity project to focus on adaptive management to combat weeds on properties affected by the earthquakes. Landcare Trust is managing the project and MDC is heavily involved in the trials to ascertain best practise with regard to managing Chilean needle grass and nassella tussock as part of a wider farming system.</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 contracted to deliver the Summer Freshwater Pest Advocacy programme in Marlborough. Fish & Game employed an advocate to deliver both the Marlborough programme. Deliverable included attendance at 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 TOSMBP as well as the provision of 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 (TOSMBP) throughout the year.</p> <p>The contracted coordinator has been delivering a broad work programme, with the contract management overseen by Marlborough District Council.</p> <p>A key collaboration was put in place in 2017/2018 in that all three TOS Councils declared and put in place Small Scale Management Programmes for Mediterranean fanworm ("Sabella"). This was done to assist by way of regulatory powers ongoing elimination activities in response to the detection of Sabella.</p> <p>Operationally, activities were managed by Council staff in relation to the ongoing local elimination attempt of Mediterranean fanworm in Picton Marina. In addition, extensive surveillance efforts have been managed across Waikawa Bay, Shakespeare Bay, Picton Port Area, Okiwi Bay, Duncan Bay and Port Underwood.</p> <p>There have also been investigation and responses to vessels detected carrying Sabella to address</p>		<ul style="list-style-type: none"> Lead the 'regional response' to incursion of marine pests established elsewhere in New Zealand into Marlborough waters.

	<p>the immediate risk the vessels posed. Links with Port Marlborough staff, Department of Conservation and the Harbourmaster have been strengthened. In particular, the Marlborough Marinas staff in Waikawa, Picton and Havelock have been providing a great deal of support.</p>		
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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 15 August 2018. No amendments were deemed necessary in accordance with Section 100B(1)(c).

With the making of the new Regional Pest Management Plan 2018, a new Operational Plan will be put in place which replaces that associated with the former Strategy. It is this new Operational Plan that will be reporting upon next year.

Section	Current Target	Proposed Target	Reason
N/A	N/A	N/A	N/A

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:


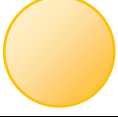
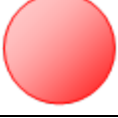
- The effectiveness of the Strategy in terms of achieving its stated objectives.
- The environmental effects of the Strategy's implementation.

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

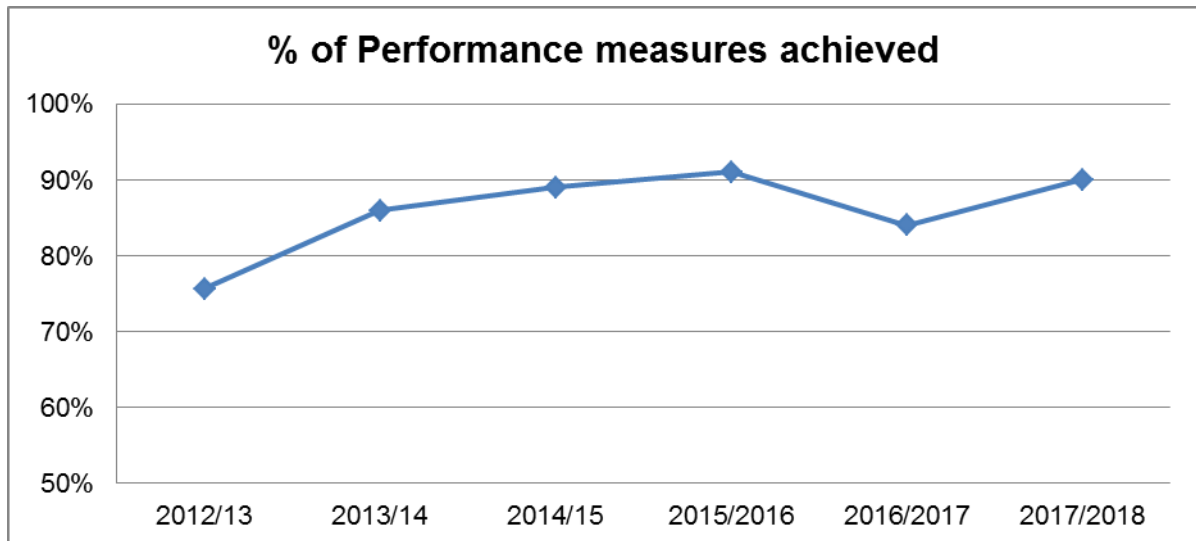
1. Long term monitoring - for example, Rabbit trend monitoring.
2. The analysis of outputs:
 - a) The level of non-compliance for landholder obligation programmes. The analysis of non-compliance can be used as a proxy for the progress against the objective of each programme.
 - b) Whether plants are 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

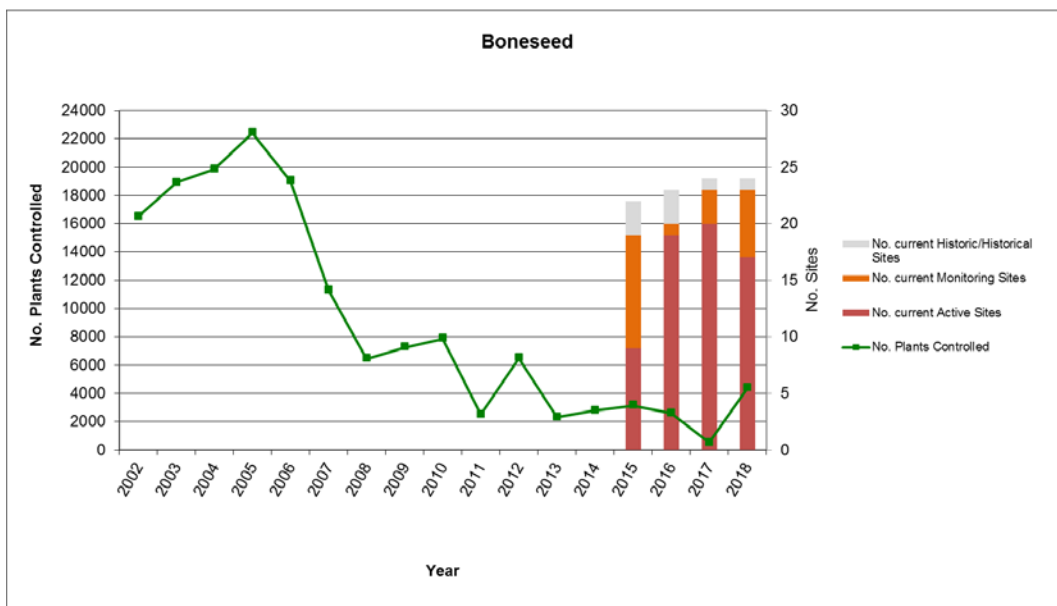
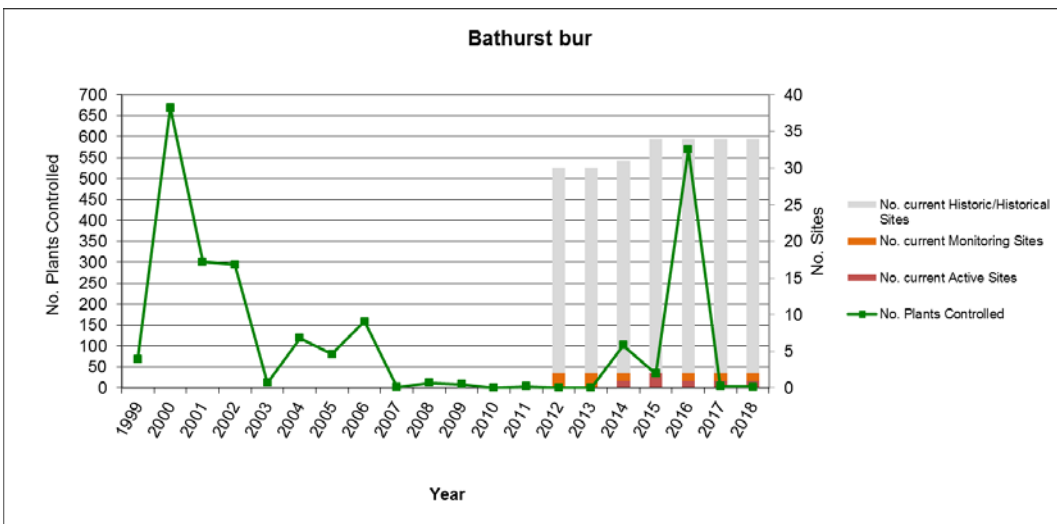
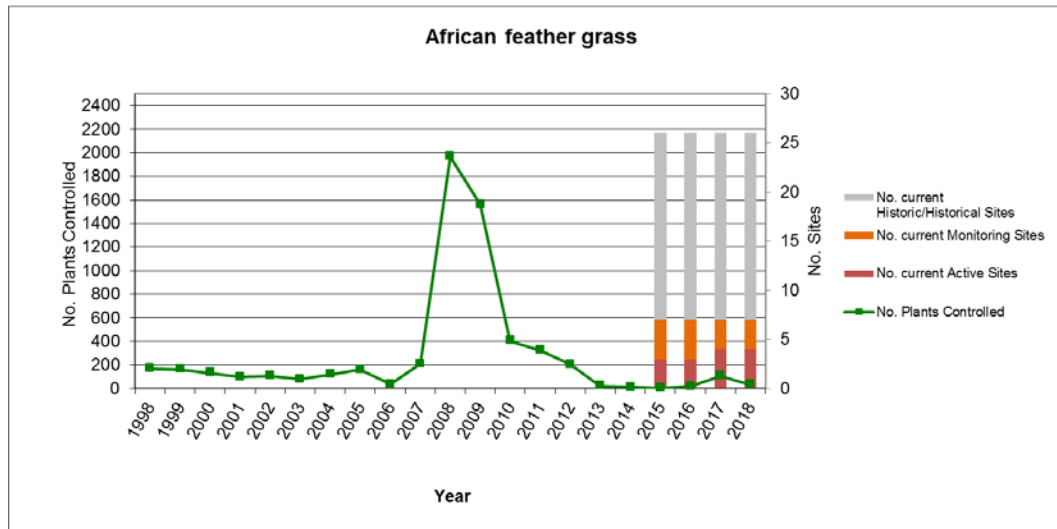
Overall scoring of performance objectives (excluding those that are not applicable):

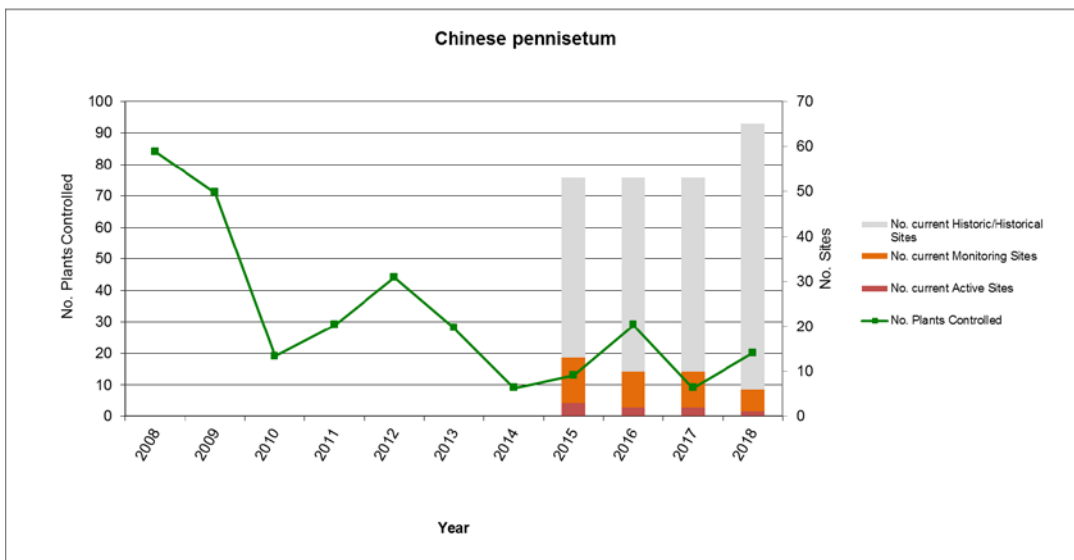
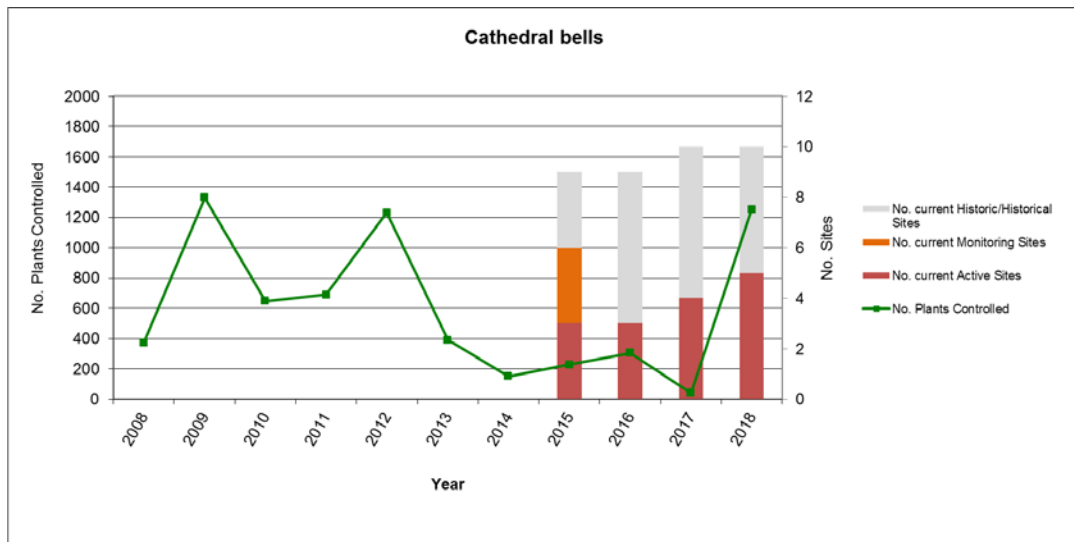
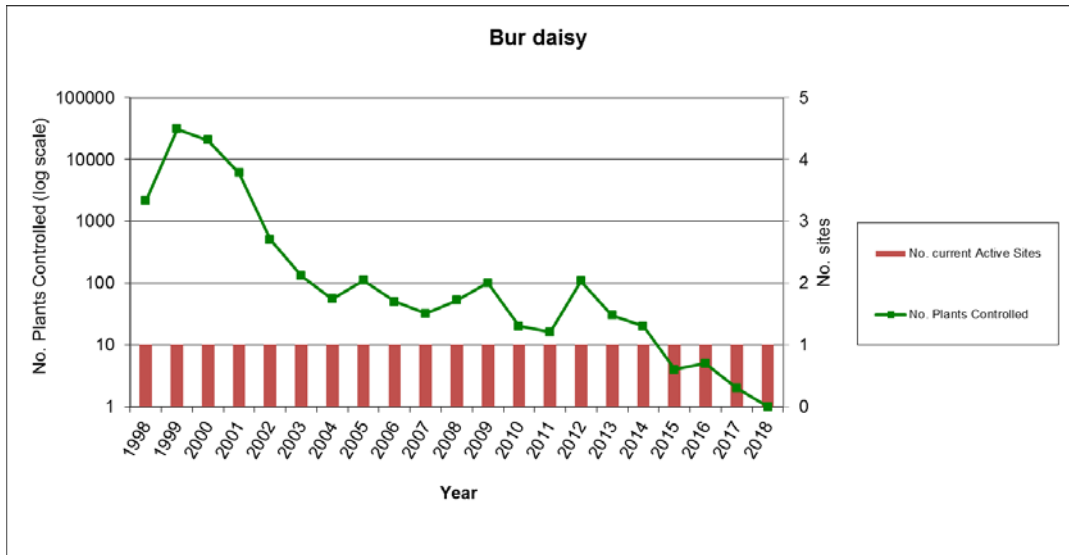
Measure	2017/2018 Score
 Achieved	35 (90%)
 Almost Achieved	4 (10%)
 Not Achieved	0 (0%)
	39 (100%)

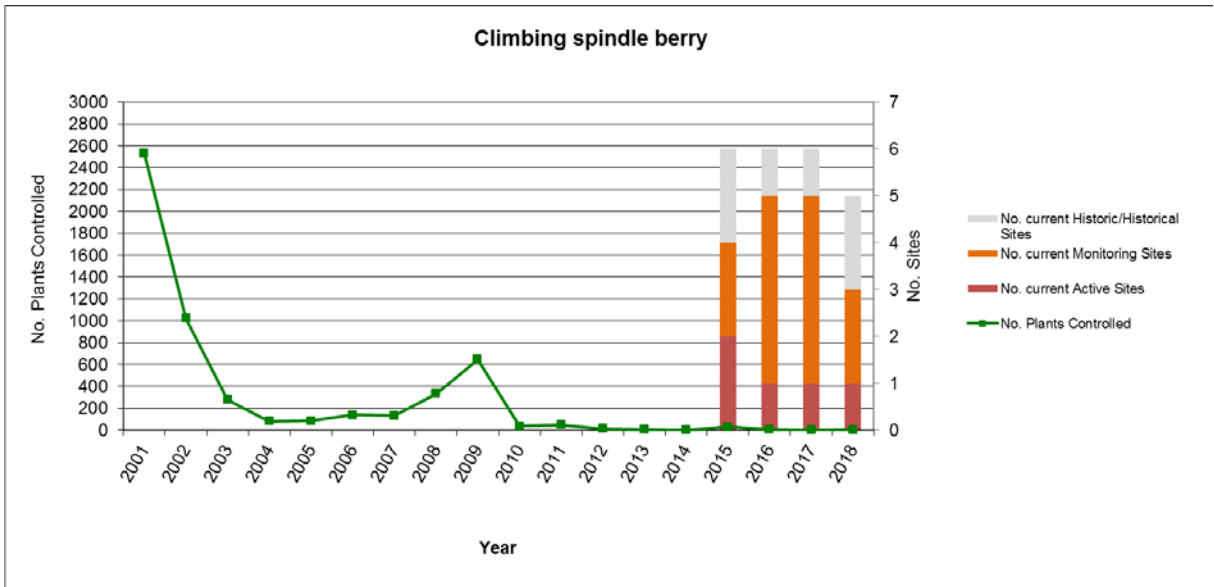
14.1 Performance Trend



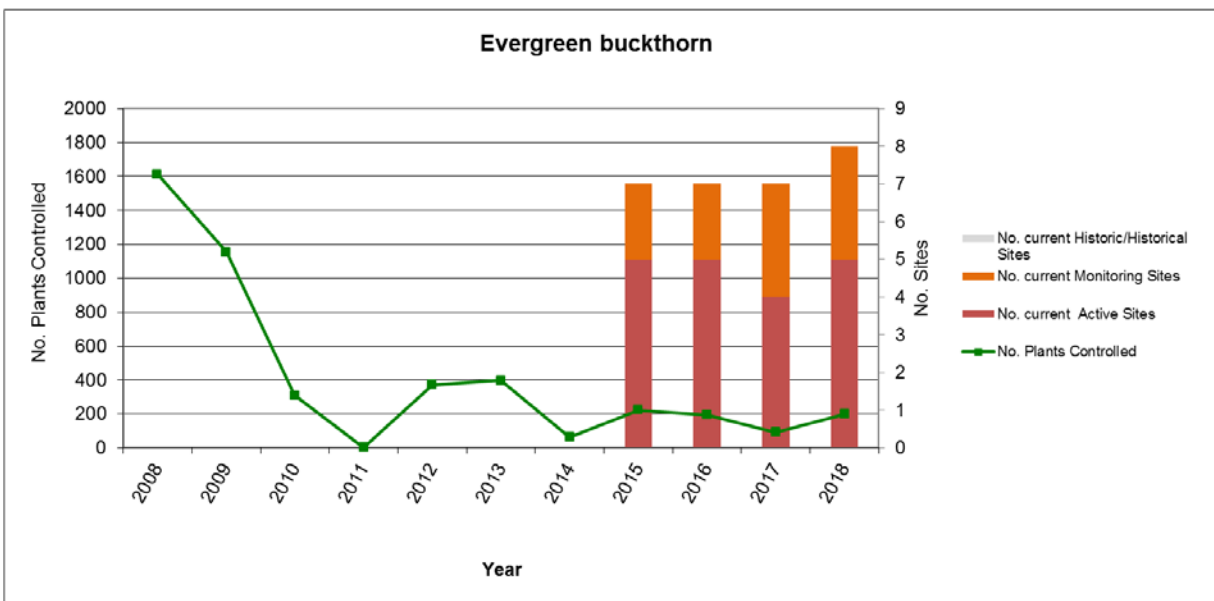
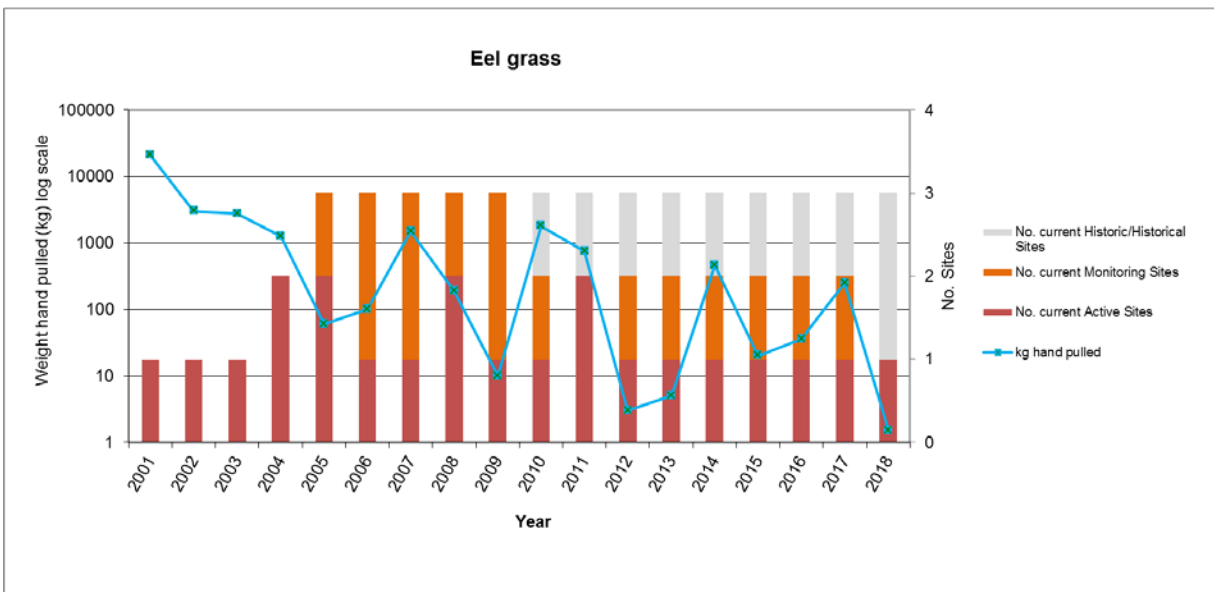
Appendix 1 - Total Control Pest Plant Data Trends

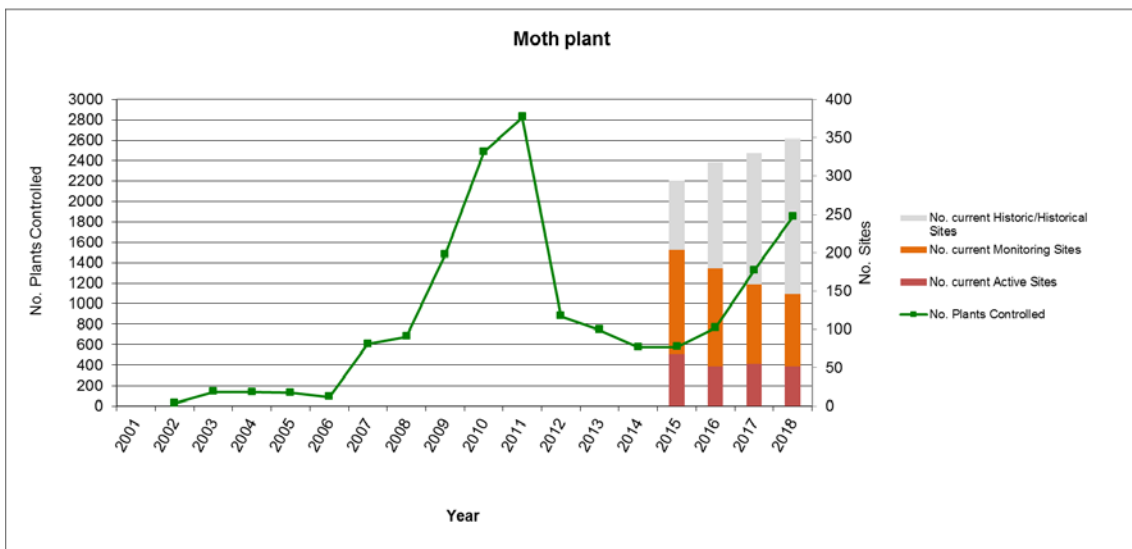
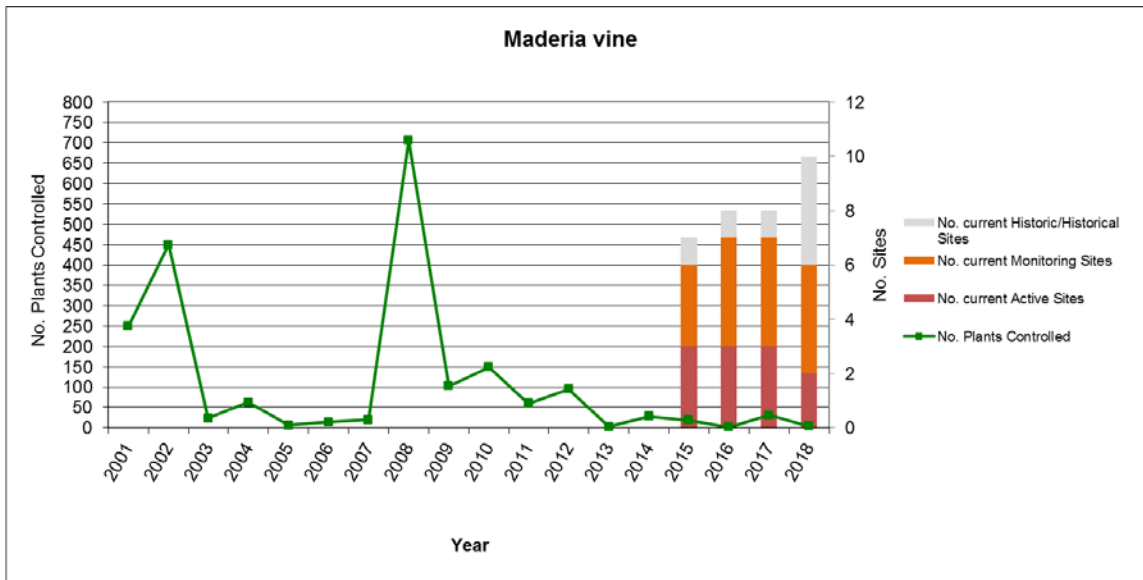
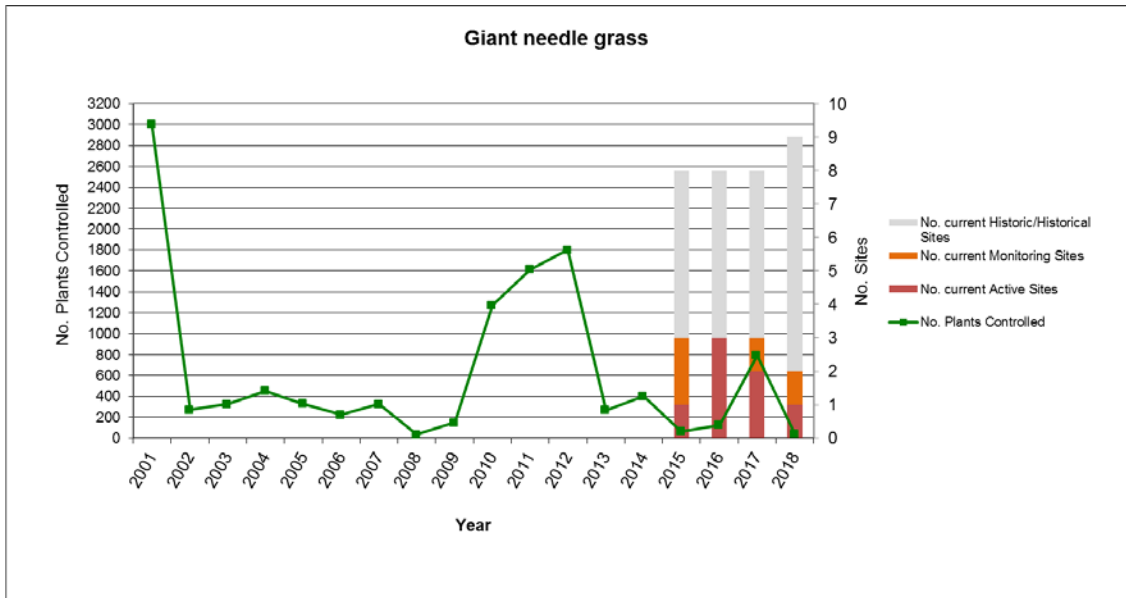


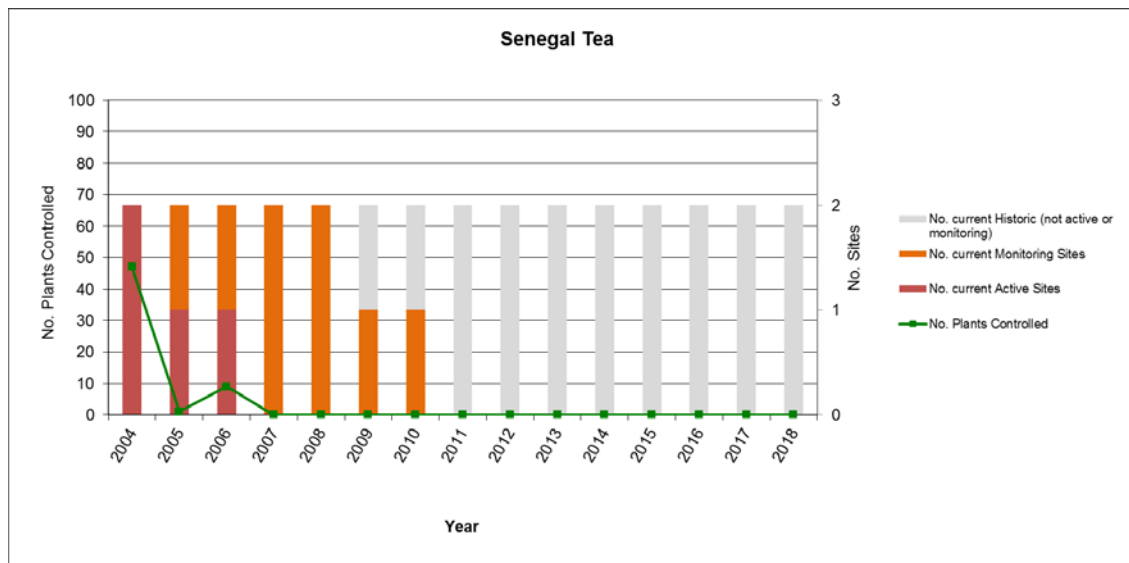
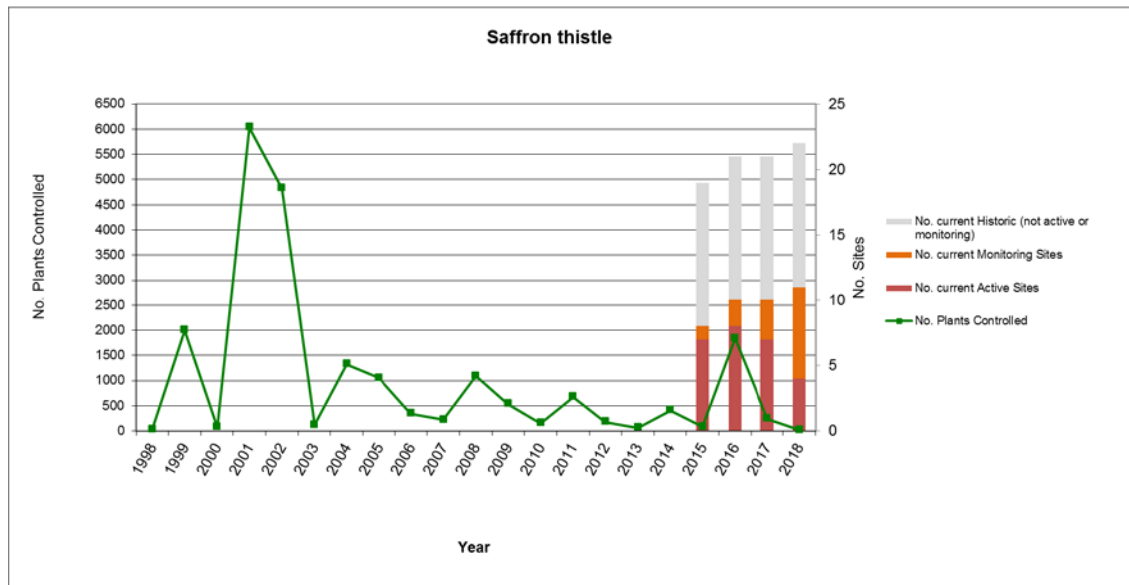
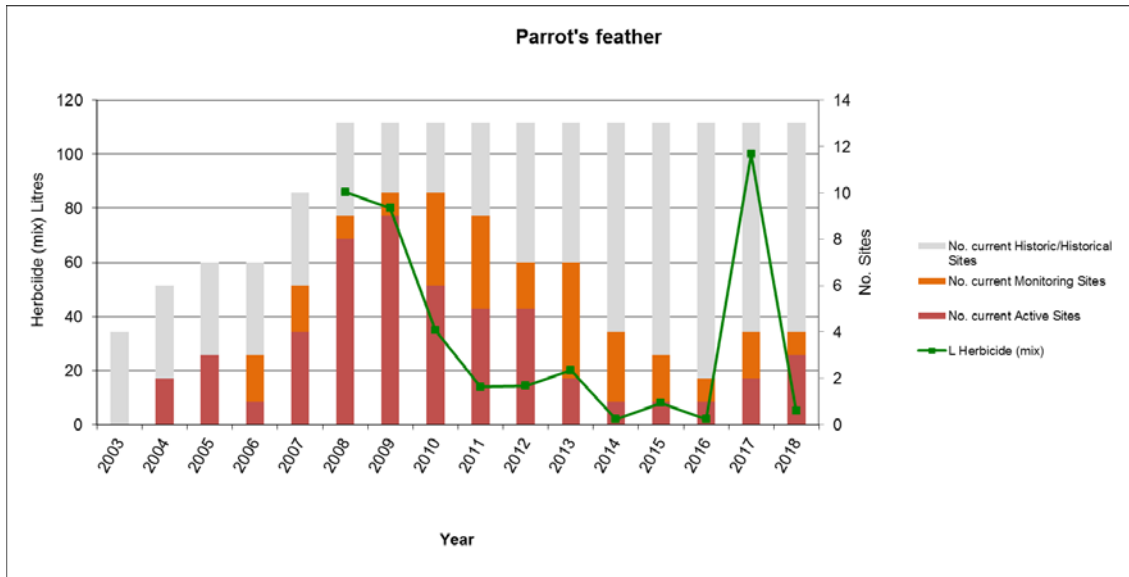


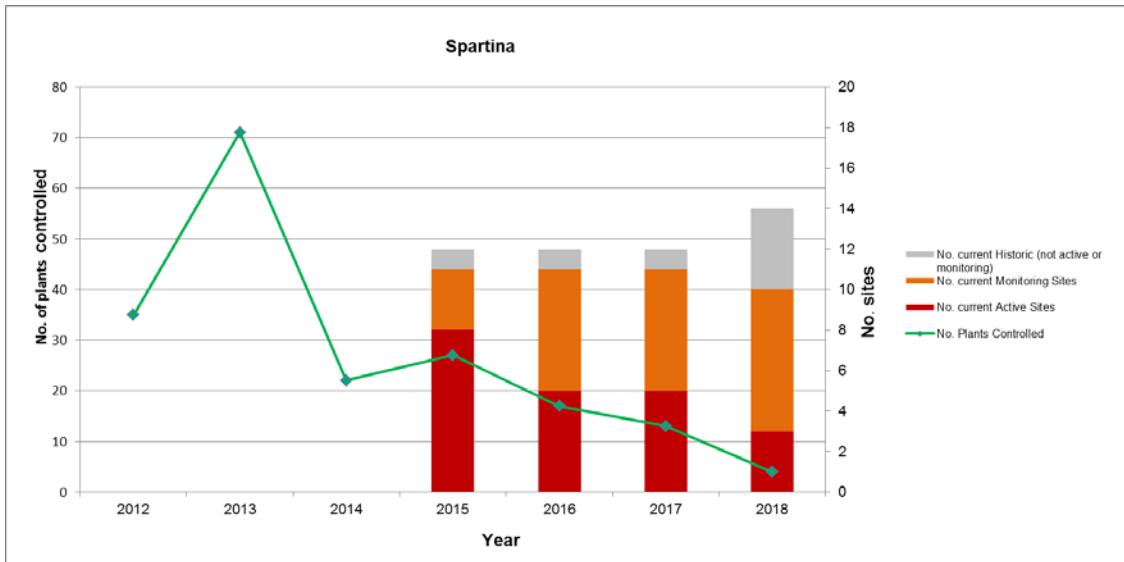


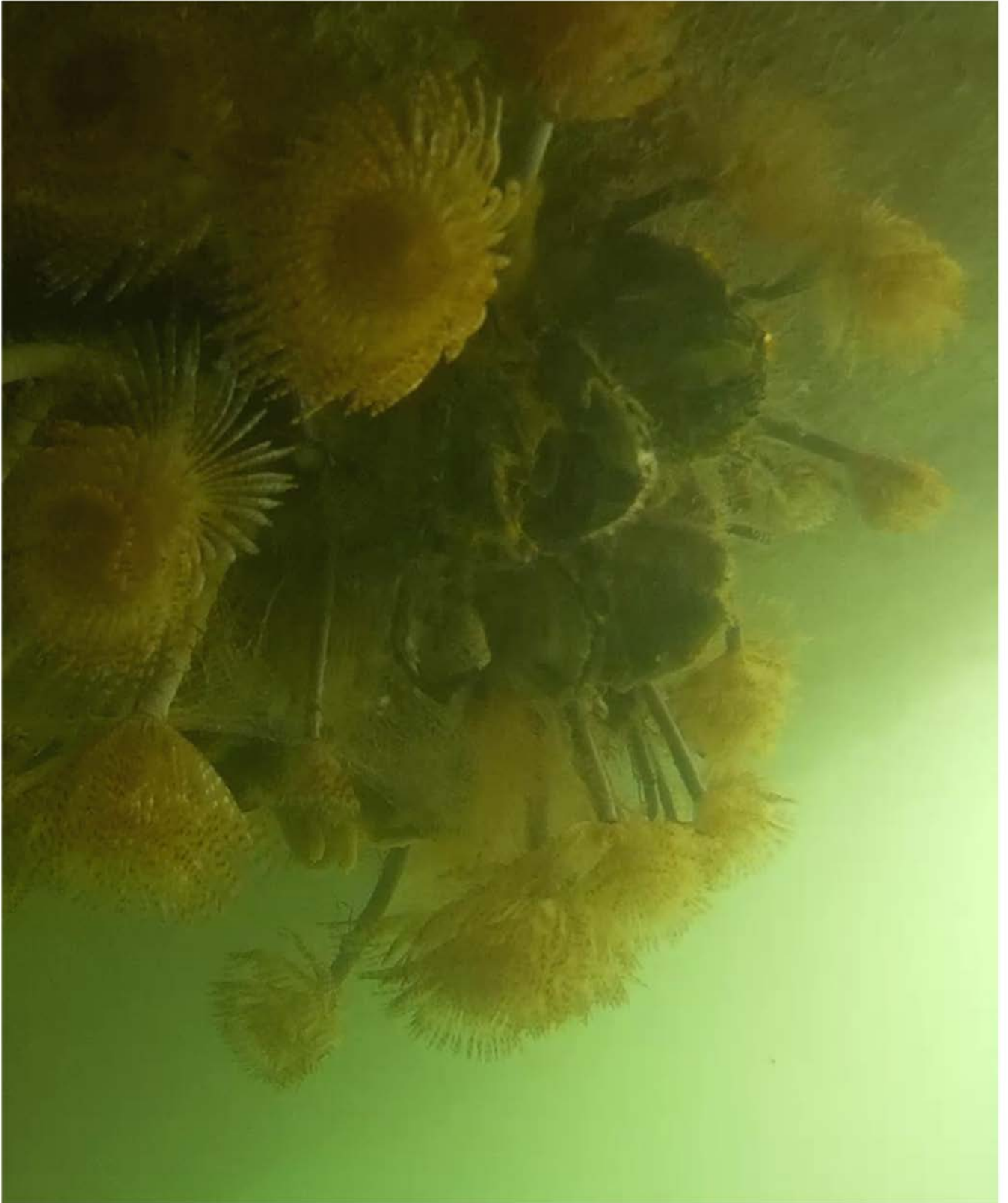
* Note the reduction in total site number is a result of a site amalgamation.











**MARLBOROUGH
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