



ASSET MANAGEMENT GROUP

Technical report

ISBN 1-877405-78-7

Biosecurity Section



SAFEGUARDING YOUR ENVIRONMENT + KAITIAKI TUKU IHO



Regional Pest Management Strategy 2013

December 2013

HBRC plan No. 4466

Asset Management Group Technical Report

ISBN 1-877405-78-7

Biosecurity Section

Regional Pest Management Strategy 2013

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March 1 2013

HBRC Plan Number 4466

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Foreword

The Regional Pest Management Strategy 2013 has been developed from a review of the Hawke's Bay Regional Plant Pest and Animal Pest Management Strategy 2006. Since the development of its first Pest Management Strategy in July 1996, significant benefits have accrued to the region's economy and biodiversity from plant and animal pest control.

The implementation of the Regional Pest Management Strategy 2013 will continue to build on the more than 400,000 hectares of land area within Hawke's Bay where possums are at extremely low densities due to the ongoing efforts of land occupiers. In 2001 HBRC established a goal of having all productive land within Hawke's Bay with low possum numbers by 2016. HBRC will achieve this target by 30 June 2013. Possums on the remainder of productive land are being controlled through the Animal Health Board (AHB) programme. Over the next 5 years HBRC expect AHB to withdraw from some of this area. Upon withdrawal by AHB, land occupiers will be required to maintain low possum numbers under the HBRC programme set out in this Strategy.

HBRC expects rook numbers within Hawke's Bay to continue to be reduced over the life of this Strategy. There have been significant reductions in rook numbers over the past 5 years. This control regime will continue under this Strategy.

HBRC is concerned however at the increasing immunity of rabbits to rabbit haemorrhagic disease, and is continuing to monitor rabbit numbers so that early action can be taken. HBRC has assisted land occupiers with high rabbit numbers over the past 5 years and will continue to do so.

Over the past five years there has been a significant reduction in the presence of Privet within urban areas. Under the Regional Pest Management Strategy 2013, Council will continue in its efforts to eradicate the seven plants under the total control (service delivery) category. In addition Council staff will work with land occupiers to contain total control (occupier responsibility) plants such that they do not become an increased threat to the region's economy or biodiversity.

I would like to take this opportunity to thank all the Biosecurity staff of Council for their efforts implementing the Regional Pest Management Strategy since the first one was developed in 1996. I would also like to acknowledge all of the hard work that you, the land occupiers of Hawke's Bay, have put in over the past fifteen years controlling pests on your land. I would also like to thank all of those people who have taken the time to provide Council with comments and feedback on Council's Strategies. It is that comment and feedback that enables Council to develop its policies, and to ensure that those policies result in effective management and reduction of the impact of pests in Hawke's Bay.

The continuing success of the Pest Management programmes requires your ongoing support and involvement. Achieving the long term goals set out in this Strategy will not necessarily be easy, and may take time, but by working together they can be achieved.

Kevin Rose
Chairman
Asset Management & Biosecurity Committee

Hawke's Bay Regional Council made this Strategy under Section 77(1) of the Biosecurity Act in 1993 by affixing its Seal to the Strategy on 1 March 2013.

**Signed under the Seal of the
Hawke's Bay Regional Council**
In the presence of:

.....
Chairman

.....
Chief Executive

Glossary

Various technical and planning terms used in the Strategy are defined in this Glossary. Terms followed by an asterisk (*) have the meaning provided in the interpretation section of the Biosecurity Act 1993. In the case of any inconsistency arising from amendments to the Act, the statutory definition prevails.

Authorised person* means a person for the time being appointed an authorised person under section 103 of the Act.

Beneficiary means the receiver of benefits accruing from the implementation of a pest management measure or the strategy.

Biological control means the introduction and establishment of living organisms, which will prey on or adversely affect a pest.

Boundary Control is the management of a pest to prevent it spreading across a property boundary into a neighbouring property where the pest is not present.

Chief Technical Officer* means a person appointed a chief technical officer under section 101 of the Biosecurity Act 1993. The Ministries of Health, Agriculture and Forestry, Fisheries, and the Department of Conservation all have appointed Chief Technical Officers.

Costs and benefits* includes costs and benefits of any kind, whether monetary or non-monetary.

Effect, unless the context otherwise requires, the term “effect” includes:

- (a) Any positive or adverse effect; and
- (b) Any temporary or permanent effect; and
- (c) Any past, present, or future effect; and
- (d) Any cumulative effect which arises over time or in combination with other effects;

Regardless of the scale, intensity, duration, or frequency of the effect, and also includes:

- (e) Any potential effect of high probability; and
- (f) Any potential effect of low probability which has a high potential impact.

Environment* includes—

- (a) Ecosystems and their constituent parts, including people and their communities; and
- (b) All natural and physical resources; and
- (c) Amenity values; and
- (d) The aesthetic, cultural, economic, and social conditions that affect or are affected by any manner referred to in paragraphs (a) to (c) of this definition.

Exacerbator means a person who, by their activities or inaction, contributes to the creation, continuance or makes worse a particular pest management problem.

Feral Cat means any cat living in a wild state and not being kept as a domestic pet.

Feral Deer means any deer that is living in a wild state and is not being herded or handled as a domestic animal or kept within an effective fence or enclosure for farming purposes.”

Feral Goat means any goat that is living in a wild state and is not being herded or handled as a domestic animal or kept within an effective fence or enclosure for farming purposes.”

Feral Pig means any pig that is living in a wild state and is not being herded or handled as a domestic animal or kept within an effective fence or enclosure for farming purposes.

HBRC means Hawke's Bay Regional Council which is the author of this Strategy and the management agency responsible for its implementation.

High ecological value means any existing legally protected natural areas, recommended areas for protection (RAP) identified under the Protected Natural Areas Programme or District Plans, and other areas containing nationally or regionally rare or threatened plants or species or communities.

Infestation means where one or more plant pests occur.

Kaitiaki means a person or agent who cares for taonga; may be spiritual or physical. Responsible for the exercise of kaitiakitanga

Kaitiakitanga means the exercise of guardianship under mana whenua, and, in relation to a resource, includes the ethic of guardianship and stewardship based on the nature of the resource itself.

Management agency* means the department, authority, or body corporate specified in a pest management strategy as the agency given the task of implementing the strategy. For the purposes of this strategy Hawke's Bay Regional Council is the management agency.

Mana whenua means customary authority exercised by an iwi or hapu over land and other taonga within the tribal rohe.

Nga Whenua Rahui covenant means a land covenant made pursuant to section 77A of the Reserves Act 1977.

Occupier*, means

- (a) In relation to any place physically occupied by any person, means that person; and
- (b) In relation to any other place, means the owner of the place; and
- (c) In relation to any place, includes any agent, employee, or other person, acting or apparently acting in the general management or control of the place.

Operational plan means a plan prepared by the Management Agency under section 85 of the Biosecurity Act 1993.

Organism*—

- (a) Does not include a human being or a genetic structure derived from a human being;
- (b) Includes a micro-organism;
- (c) Subject to paragraph (a) of this definition, includes a genetic structure that is capable of replicating itself (whether that structure comprises all or only part of an entity, and whether it comprises all or only part of the total genetic structure of an entity);
- (d) Includes an entity (other than a human being) declared by the Governor-General by Order in Council to be an organism for the purposes of the Act;
- (e) Includes a reproductive cell or developmental stage of an organism.

Pest means an organism specified as a pest in this Pest Management Strategy

Pest management strategy* and **strategy*** mean a strategy, made under Part V of the Biosecurity Act 1993, for the management or eradication of a particular pest or pests.

Principal officer* means the principal administrative officer of a regional council; and—

- (a) In relation to a regional council, means the principal officer of that council; and
- (b) In relation to a region, means the principal officer of the region's regional council; and includes an acting principal officer.

QEII covenant means a land covenant made pursuant to section 22 of the Queen Elizabeth the Second National Trust Act 1977.

Total Control (Service Delivery) is the management of a plant pest by Council to secure its eventual eradication.

Total Control (Occupier responsibility) is the management of a plant pest by the occupier of the land on which the plant is present to prevent the spread of that plant pest.

Trap Catch refers to an index of possum density as determined by trap-catch monitoring. For example, a 5% trap catch means that for every 100 traps set for one night, 5 possums are caught.

Unwanted organism* means any organism that a chief technical officer believes is capable or potentially capable of causing unwanted harm to any natural and physical resources or human health; and

- (a) Includes—
 - (i) Any new organism, if the Environmental Risk Management Authority has declined approval to import that organism; and
 - (ii) Any organism specified in the Second Schedule of the Hazardous Substances and New Organisms Act 1996; but
- (b) Does not include any organism approved for importation under the Hazardous Substances and New Organisms Act 1996, unless—
 - (i) The organism is an organism which has escaped from a containment facility; or
 - (ii) A chief technical officer, after consulting the Environmental Risk Management Authority and taking into account any comments made by the Authority concerning the organism, believes that the organism is capable or potentially capable of causing unwanted harm to any natural and physical resources or human health.

Waahi tapu means sacred site. These are defined locally by the hapu or iwi that are kaitiaki for the waahi tapu.

Zero density means when there are no known animals or plants left of the pest species of concern, in the area of concern, at the end of annual pest control operations. Zero density is a status slightly less than eradication because of the risk of re-infestation.

Part One

1 Introduction

“The fact is that all the King’s horses and all the King’s men cannot catch up with a weed that has obtained a start. No action is ever taken in time; to begin with, the new plant is not noticed in its unit stage; when it numbers hundreds a few of the more observant settlers become interested; when thousands appear it is talked of as a newcomer; only when the hundred thousand phase is past, when the plant has been carried or blown abroad to every corner of every province in New Zealand, is legislation attempted.”

- H. Guthrie-Smith, ‘Tutira’, 1921

In the last 10 year much has changed about pest management in Hawke’s Bay and New Zealand. Here in Hawke’s Bay with the assistance of willing landowners and the Animal Health Board, the control of possums is proving successful. We have also made progress on rook control.

Land use patterns in Hawke’s Bay continue to change. One aspect of this change is that organisms that may have been present and not causing significant harm may become serious pests quickly. Furthermore changing trade patterns have the potential to introduce pests to our shores and the need for monitoring and quick responses remain important.

Following reviews of the way in which pest management is carried out; the Government has introduced the Biosecurity Reform Bill. When passed this Bill will put a greater focus on a risk management approach to the control of unwanted organisms; it will improve the collaboration between government agencies, local authorities, and industry; and clarify roles and responsibilities for the control and management of unwanted organism.

1.1 Title and purpose of the strategy

This Strategy is to be known as the “*Regional Pest Management Strategy*” for Hawke’s Bay. It has been made following the review and amendment of the Regional Pest Management Strategy 2006 by Hawke’s Bay Regional Council in accordance with the Biosecurity Act 1993, and has effect over Hawke’s Bay (see Figure 1). The purpose of the Strategy is to provide for the effective management of pests in the region, in order to:

- Eradicate certain pests;
- Control the spread of some established pests;
- Minimise the adverse and unintended effects of the pests;
- Monitor the presence of pests in the region; and
- Facilitate efficient pest control through a regionally co-ordinated approach.

This Strategy will be effective for a period of five years from the date it is made by Council, unless a review establishes that it should be amended at an earlier date. While the term of this Strategy is only five years, many of the goals listed for each pest are for longer periods to indicate Council's long-term intentions for these pests.

Figure 1: Hawke's Bay region

Under section 88(6) the Regional Council must proceed to review the Pest Management Strategy where the strategy has been in force for more than five years and where it has been more than five years since the strategy was reviewed. Following the review Council may decide to amend, revoke or leave the strategy unchanged.

1.2 Strategy Goal

The Strategy contributes to both a clean and healthy environment and a prosperous region by reducing the threat from plant and animal pests on the region's biodiversity and economic prosperity.

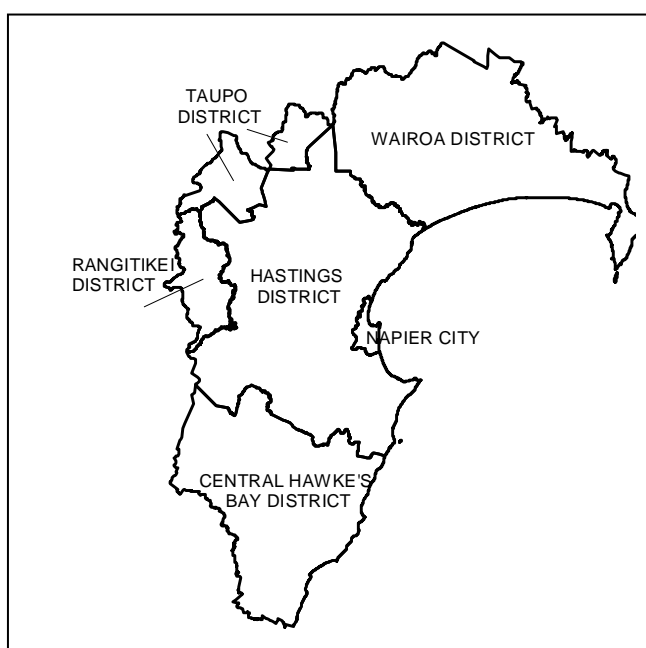
1.3 Objectives of the strategy

1. To reduce the density and extent of pests in Hawke's Bay;
2. To increase the awareness of the Hawke's Bay public of the need to recognise and control pests; and
3. To ensure pests listed in this Strategy are not imported to the region, sold or distributed.

1.4 Strategy structure

This Strategy is set out in three parts:

Part I: provides an introduction to the Strategy. It contains a summary of the legislative framework, and the roles and responsibilities of the various parties involved in pest management.



Part II: lists the pests managed under the Strategy. The management regime for managing these pests is set out. This includes a description of each pest; the Strategy Objective(s) to be achieved; and the tactics required to achieve the Strategy Objective(s), including any rules for controlling each pest.

Part III: sets out the procedures for enforcing, funding, and monitoring the Strategy.

1.5 Statutory framework

The Biosecurity Act 1993

The Biosecurity Act deals with the exclusion, eradication, and effective management of pests and unwanted organisms. The Biosecurity Act places no requirement on regional councils to conduct pest control. Rather it sets out the manner in which a Pest Management Strategy must be conducted, should a regional council choose to develop one. To develop a Pest Management Strategy the Council must consider that doing so is the most effective and efficient course of action.

2 Obligations and Responsibilities

This section outlines those parties, who have specific obligations and responsibilities under this Proposed Strategy. They are:

- **Hawke's Bay Regional Council** which, as proposer of the Strategy and the management agency for this Pest Management Strategy, is ultimately responsible for ensuring that the Strategy is implemented;
- **Occupier** as defined by the Biosecurity Act includes any person physically occupying land; any owner of unoccupied land; or any agent, employee or other person acting in the general management or control of the land.

2.1 Hawke's Bay Regional Council as Management Agency

Hawke's Bay Regional Council is the management agency responsible for implementing this Strategy. This involves developing and administering systems for implementing the methods, funding mechanisms, and monitoring of the Strategy.

2.2 Occupiers

For most pests that have an economic impact, occupiers of private land are generally the principal beneficiaries of pest management and/or the principal exacerbators of pest problems. Accordingly, this Strategy contains rules that place an onus upon occupiers to undertake the control of pests on their land. Pest control will be undertaken at the cost of the occupier, unless the Strategy indicates that a financial incentive is available where occupiers have entered into an approved management programme with Hawke's Bay Regional Council.

However, HBRC will undertake the control of a range of Total Control Plant Pests, and rooks in Hawke's Bay and arrange for the initial control of possums.

Maori

This strategy proposes equitable treatment of all land, and emphasises the responsibilities and obligations of all land occupiers, including Maori. Council acknowledge the complex and variable relationships of Maori land ownership and occupation, comprising multiple ownership; including lessees or a range of corporate management systems, under the Companies Act or Te Ture Whenua Act. Where owners or occupiers are not identifiable recourse may be made to the Maori Land Court; or the Registrar of Companies to assist effective communication. Within Hawke's Bay approximately 87,000 hectares of land is under multiple ownership; but the majority of this has identifiable occupiers. This is a significant area for benefit to the regional interest if the strategy is implemented; or, conversely, presents a risk if barriers to communication arise with respect to the occupiers obligations and responsibilities in the strategy.

2.3 Crown land occupiers

Hawke's Bay Regional Council is unable to levy rates on most Crown land occupiers under the Local Government (Rating) Act 2002. A different funding mechanism is therefore required for non-rateable Crown land occupiers. This can only be developed by negotiation with these occupiers.

There are three principal occupiers of non-rateable Crown land in Hawke's Bay. These are: NZ Transport Agency, KiwiRail, and Department of Conservation.

Other Crown land occupiers who may have responsibilities for Crown lands within Hawke's Bay are Land Information New Zealand and Office of Treaty Settlements.

NZ Transport Agency

NZ Transport Agency is responsible for land associated with the National State Highway network. In light of the Environment Court decision in Mehrtens v Transit NZ, (EnvC C165/2000) Hawke's Bay Regional Council is taking the position that NZ Transport Agency is not part of the Crown for the purpose of the Biosecurity Act, and therefore has the same obligations as any other land occupier.

Transit New Zealand is both a beneficiary and an exacerbator under this Strategy. Transit New Zealand benefits from this Strategy requiring adjoining land occupiers to control plant pests on land they have responsibility for. It is also an exacerbator to adjacent land where plant pests are present on State Highway land.

KiwiRail

"KiwiRail is the occupier of land which forms the railway corridor in Hawke's Bay. The Crown and KiwiRail are exempt from liability under the Biosecurity Act.

Council will negotiate an annual programme of work with KiwiRail to control pests on the rail corridors.

Department of Conservation

Department of Conservation is responsible for 237,120 hectares of land within Hawke's Bay. Department of Conservation acknowledges that parts of this land harbour pests which can cause infestations on adjacent productive land. A programme of work covering the period of the Pest Management Strategy 2006 was developed in negotiation with Department of Conservation, which had the intention of reducing the potential exacerbation effect from its land.

The Council will negotiate a new programme of work with the Department of Conservation to ensure that the control of pests on its land is continued.

Land Information New Zealand

Land Information New Zealand at present is responsible for 24,000 hectares of land in Hawke's Bay. Land Information New Zealand agreed in 2001 that where this land is harbouring plant pests they will undertake the necessary work in accordance with the Pest Management Strategy to control them.

Council will seek agreement from Land Information New Zealand to their continued work in controlling pests on land it is responsible for in accordance with this Pest Management Strategy.

Office of Treaty Settlements

Office of Treaty Settlements at present may be responsible for some land in the Hawke's Bay region. Office of Treaty Settlements agreed in 2001 that where land they are responsible for is harbouring plant pests they will undertake the necessary work in accordance with this Strategy to control them.

Council will seek agreement from Office of Treaty Settlements to their continued work in controlling pests on land it is responsible for in accordance with this Pest Management Strategy.

2.4 Control of Road-side Plant Pests

Prior to the 1997 amendment of the Biosecurity Act, section 6 of the Act provided that "land" included adjoining roads. However, the default under the amended Act is that adjoining roads are not included unless the pest management strategy states that is the case.

This Strategy treats roads as separate from adjoining land and requires all land occupiers to control pests on the land they are responsible for. This means that the responsibility for the control of plant pests on the roadside rests with NZ Transport Agency for State Highways, and with local authorities for all the other roads in the region.

The Strategy allows for agreed management programmes for the control of all plant pests. It is envisaged that a management plan for up to the duration of this Strategy will be agreed between all road controlling authorities and Hawke's Bay Regional Council for the management of all roadside plant pests. This will provide the road controlling authorities certainty for planning and operational purposes. Matters that will be included in the management programmes include how to manage roadsides with indigenous vegetation and for roadside stability.

Roading authorities are subject to the boundary control and must comply with the rules for boundary control plant pests.

2.5 Territorial authorities

Six territorial authorities are wholly or partly contained within the Hawke's Bay region. They are: Wairoa, Hastings, Taupo, Rangitikei and Central Hawke's Bay District Councils, and Napier City Council.

Each territorial authority will be bound by the rules in this Strategy unless they have a programme for the control of pests on their land (that is approved by Hawke's Bay Regional Council). Each territorial authority will be responsible for meeting the costs of complying with this Strategy.

Hawke's Bay Regional Council is not seeking any contributions towards the administration of this Strategy from the territorial authorities.

The territorial authorities as well as being required to control plant pests on roads they own are also responsible for other areas of land that they own or manage, including reserves and land associated with river control or drainage schemes. Each territorial authority and Hawke's Bay Regional Council, is required to control pests on the land it owns or manages pursuant to the rules set out in Part II of this Strategy.

Part Two

3 Pests to be managed

3.1 Introduction

This section lists the pests and sets out the management regime for managing them. For all pests the following is provided:

- A description of the pest;
- The Strategy Objective to be achieved;
- The management regime to be used to achieve the Strategy Objective, including any occupier rules.

3.2 Plant pest designations

Hawke's Bay Regional Council has determined that different plant pests warrant different levels of control. For the purposes of this Strategy, the Regional Council has adopted the following categories of plant pests:

3.2.1 Total Control (Service Delivery)

Total Control (Service Delivery) plant pests occur in a few sites, with small areas of infestation. The long-term goal is their eventual eradication.

A total Control (Service Delivery) plant pest must be destroyed or prevented from seeding wherever it appears. Further to the obligations for control, Total Control (Service Delivery) plant pests are banned from sale, propagation and distribution pursuant to section 52 and 53 of the Biosecurity Act.

The responsibility for control usually rests with the land occupier, as they are considered to be the "owner" of the problem. However, for these plant pests Hawke's Bay Regional Council will undertake control measures of the plant pest, as it is considered cost effective for the Council to control these plant pests and in the regional interest to ensure control is carried out when required and to a high standard.

3.2.2 Total Control (Occupier Responsibility)

Total Control (Occupier Responsibility) plant pests are widespread and/or difficult to control. The long-term goal is to stop the spread of these plants.

A Total Control (Occupier Responsibility) plant pest must be destroyed or prevented from spreading wherever it appears. Further to the obligations for control, Total Control (Occupier Responsibility) plant pests are banned from sale, propagation and distribution pursuant to sections 52 and 53 of the Biosecurity Act.

The responsibility for control rests with the land occupier, as they are considered to be the "owner" of the problem. However, Council may assist land occupiers, for example, where specialist knowledge is required for plant pest control, or through financial provisions.

3.2.2 Boundary Control plant pest

This means a plant pest that is abundant on some properties in the region where the long-term goal is to prevent the pest spreading to neighbouring properties. As these plant pests are widespread throughout the region, the cost of eradication is considered too great to justify any

more rigorous methods of control. To stop the plant pests spreading, the Strategy requires land occupiers to keep their property boundary free of the plant pest, if it is not present within a defined distance on their neighbour's property. Boundary Control plant pests are banned from sale, propagation and distribution under sections 52 and 53 of the Biosecurity Act.

3.2.4 List of plant pests

The plant pests controlled by this Strategy are shown in Table 1 below.

Table 1: Plant Pests included in this Strategy.

PLANT PESTS		Section of the strategy
Common name	Species name	
TOTAL CONTROL (SERVICE DELIVERY)		
African feather grass	<i>Pennisetum macrourum</i>	4.1
Goats rue	<i>Galega officinalis</i>	4.2
Nassella tussock	<i>Nassella trichotoma</i>	4.3
Phragmites	<i>Phragmites australis</i>	4.4
Spiny emex	<i>Emex australis</i>	4.5
White edged nightshade	<i>Solanum marginatum</i>	4.6
Yellow water lily	<i>Nuphar lutea</i>	4.7
Privet	<i>Ligustrum sinense</i> & <i>L. lucidum</i>	4.8
TOTAL CONTROL (OCCUPIER RESPONSIBILITY)		
Apple of Sodom	<i>Solanum linnaeanum</i>	5.1
Australian sedge	<i>Carex longibrachiata</i>	5.2
Chilean needle grass	<i>Nassella neesiana</i>	5.3
Cotton thistle	<i>Onopordum acanthium</i>	5.4
Japanese honeysuckle	<i>Lonicera japonica</i>	5.5
Pinus contorta	<i>Pinus contorta</i>	5.6
Old man's beard	<i>Clematis vitalba</i>	5.8
Saffron thistle	<i>Carthamus lanatus</i>	5.9
Woolly nightshade	<i>Solanum mauritianum</i>	5.10
BOUNDARY CONTROL PLANT PESTS		
Bathurst bur	<i>Xanthium spinosum</i>	6.1
Blackberry	<i>Rubus fruticosus</i> agg.	6.2
Gorse	<i>Ulex europaeus</i>	6.3
Nodding thistle	<i>Carduus nutans</i>	6.4
Ragwort	<i>Senecio jacobaea</i>	6.5
Variegated thistle	<i>Silybum marianum</i>	6.6

3.3 Animal pest designations

There are two categories of animal pests in the Strategy:

3.3.1 Region wide control

These animal pests are widespread throughout the region and can cause significant economic and environmental problems in all locations. The intent is to control these animals throughout the region, with the long-term goal being to reduce their numbers so that they no longer have any significant impact on the region.

3.3.2 Site-specific control

This category of animal pests is also widespread throughout the region. However, the adverse effects they cause are generally related to the biological diversity of the region. The Council has therefore chosen to provide a level of assistance to those land occupiers that wish to control these animals at sites, which are regionally significant.

3.3.4 List of animal pests

The animal pests controlled by the Strategy are shown in Table 2 below.

Table 2 : Animal pests included in Strategy

ANIMAL PEST		Section of the strategy
Common name	Species name	
REGION WIDE CONTROL		
Possum	<i>Trichosurus vulpecula</i>	8.1
Rabbit	<i>Oryctolagus cuniculus</i>	8.2
Rook	<i>Corvus frugilegus</i>	8.3
SITE SPECIFIC CONTROL		
Feral goat	<i>Capra hercus</i>	8
Feral deer (red, Sika, and fallow and any hybrids)	<i>Cervus elaphus</i> , <i>C. nippon</i> , <i>C. dama</i>	
Feral pigs	<i>Sus scrofa</i>	
Mustelids (ferret, stoat, weasel)	<i>Mustela furo</i> , <i>M. erminea</i> , <i>M. nivalis</i>	
Feral cats	<i>Felis catus</i>	
Rats (Norway & ship)	<i>Rattus norvegicus</i> , <i>R. rattus</i>	

3.4 Unwanted organisms

An unwanted organism is any organism that a Chief Technical Officer believes is capable of causing unwanted harm to any natural or physical resources or human health. While the Chief Technical Officers of the Ministries of Health, Fisheries, and Agriculture and Forestry, and Department of Conservation all have the power to declare an organism unwanted, the Ministry of Agriculture and Forestry has agreed to take a coordinating role in maintaining the national list of unwanted organisms. The list of unwanted organisms is available on the Ministry web site at <http://www.biosecurity.govt.nz/pests/registers/uor>. Unwanted organisms are banned from sale,

propagation and distribution under sections 52 and 53 of the Biosecurity Act. Any other control measures are the responsibility of the respective government departments unless a regional council has been specifically asked and agreed to undertake any such work.

3.5 Offences and rules

Sections 52 and 53 of the Biosecurity Act impose restrictions on the sale, breeding, propagation, distribution or release of all pests specified in this Strategy. A breach of any of the provisions of these sections in respect of any of the pests specified in this Strategy is an offence under the Biosecurity Act. The penalties for a breach of section 52 & 53, for an individual person is a fine of up to \$100,000 or up to five years in jail or both, or for a corporation a fine of up to \$200,000. Hawke's Bay Regional Council will enforce these restrictions.

Section 122 of the Biosecurity Act provides the power to Hawke's Bay Regional Council to direct an occupier to destroy any pest or to take steps to prevent the spread of any pest, or to comply with a rule in this Strategy. Anyone who fails to comply with these directions, without a reasonable excuse, is liable for a fine of up to \$50,000 or up to three months in jail or both. For a corporation the fine is up to \$100,000.

Rules

The Biosecurity Act allows Hawke's Bay Regional Council to specify rules in its pest management strategies. These rules generally cover actions that people need to take to implement the Strategy.

Rules can also specify that a breach of the rule creates an offence under section 154 of the Biosecurity Act. Where a rule specifies this, a breach can result in a fine of up to \$5,000 for individuals and up to \$15,000 for corporations.

Hawke's Bay Regional Council has developed rules for the control and management of all the pests included in this Strategy.

Details of how enforcement procedures will be conducted by the Council, as Management Agency are detailed in section 9.2

3.6 General Powers of Council

The Biosecurity Act provides wide-ranging powers to the Council for the control of pests. As noted above it is an offence to distribute or release the pests specified in this Strategy. The Biosecurity Act also provides powers to the Council to direct an occupier to take steps to prevent the spread of any pest. To assist land owners prevent the spread of pests or pest material (such as seeds) the Council will continue to educate the Hawke's Bay public on plant and animal pests and their effect or potential effect on the region's economy, public health, or biodiversity.

Council will also continue to educate occupiers and potential occupiers of land within the region of their obligations under this Strategy. Education will be achieved through a variety of means including:

- The provision of information on its website and at field days and other venues; and
- By providing an advisory service.

The Council may also provide information on the location of areas of pest infestation to the relevant City or District Council so that the information can be listed on relevant Land Information Memorandum (LIMS). Along with other information services the Council provides

to land occupiers, it believes that this will assist future land occupiers identify sites of pest infestation.

Where earth moving is occurring at sites where Total Control plant pests are known to be present, the Council may erect signs warning of the presence of pest material and requiring the “users” of all machinery on the site to ensure that they are properly cleaned before they leave the affected site.

Council may also require at its discretion that:

- a) No person shall remove any soil or plant material from any place where a total control pest plant is present, unless the removal is first approved in writing by an authorised person.
- b) Any person in charge of any vehicle, machinery, plant or equipment used in the place where a total control pest plant is present must remove all soil and plant matter from that vehicle, machinery, plant or equipment before taking that vehicle, machinery, plant or equipment from that place.

Total control plant pest means both total control (service delivery) plant pests, and total control (occupier responsibility) plant pests.

3.7 Compensation

No compensation will be paid to any land occupier who suffers any loss as a result of the implementation of this Pest Management Strategy.

4 Total Control (Service Delivery) plant pests

For each of the eight Total Control (Service Delivery) plant pests, a brief description is provided, and the management regime for how these plants will be controlled is outlined.

4.1 African feather grass – *Pennisetum macrourum*

Description

African feather grass was first recorded in New Zealand in 1940, and was introduced as an ornamental grass for gardens. It is a robust, rhizomatous, perennial grass that forms dense tussocks up to 2 metres high. It resembles a small pampas grass when not flowering. African feather grass flowers from November to April. The yellow/ purple flowers are distinctive, forming a narrow cylindrical stem up to 30cm long with barbed bristles sticking out from the spike.

It spreads either by seeds or by advancing its stout rhizomes. It is spread by gravel distribution, wind, water, clothing, the hair or wool of animals, cultivation and machinery. It tolerates a wide range of conditions, but prefers damp situations in swamps and along the berms of rivers.

The known distribution of African feather grass in Hawke's Bay is presently limited to the Ngaruroro River berm areas, farmland at Bridge Pa, Raukawa, and Maraekakaho, and one site in the urban area of Havelock North.

Long-term goal

To prevent significant adverse effects of African feather grass on the economic wellbeing and biological diversity of the region, through eventual eradication.

Strategy Objective

To reduce the total known population of African feather grass to a point where it no longer poses a risk, and prevent new infestations from occurring.

Management regime

As the area occupied by the known population of African feather grass is now very small, HBRC will, at its discretion, carry out surveillance at least twice a year and control every known infestation of this plant before seeds reach maturity.

4.2 Goats rue – *Galega officinalis*

Description

Goats rue is a perennial, colony-forming, woody herb, which grows up to 1 m tall. It has lilac or pink flowers that grow in bunches on spikes of 30 cm or longer. The plant is spindly when young but usually grows into dense clumps with tall stems which die back during autumn. Goats rue is a very robust plant, and can tolerate severe frosts. It is spread mainly by gravel distribution and by water, and can establish in many habitats, especially along roadsides and watercourses.

The distribution of Goats rue is limited to the southern North Island, and in Hawke's Bay it is found at Eskdale, Omakere, Ongaonga, Tikokino and Porangahau. It is present along the roadsides and railway lines in these areas.

Long-term goal

To prevent significant adverse effects of Goats rue on the economic wellbeing of the region through eventual eradication.

Strategy Objective

To reduce the known population of Goats Rue to the point where it no longer poses a risk, and prevent new infestations from occurring.

Management regime

As the area occupied by the known population of Goats rue is now very small and limited to five infestations, HBRC will, at its discretion, carry out surveillance at least twice a year, and control every known infestation of this plant before seeds reach maturity.

4.3 Nassella tussock – *Nassella trichotoma***Description**

Nassella tussock is a perennial tussock-like grass with dense, fibrous, tough roots. The leaves on young plants are erect, but older plants have a drooping habit. It is very similar in appearance to native tussocks, which makes identification difficult. Mature plants are up to 0.5m high and 1 m across. Purple flowers occur from October to December. The numerous flower heads are in the form of open-branched panicles that are erect when young but weep over the tussock when mature. Each mature plant produces up to 100,000 seeds per year.

Nassella tussock will grow almost anywhere, but is most commonly found on dry, low fertility land, sunny slopes, dry spurs and knobs, and stony riverbeds. The seed straw is readily carried by strong wind and can travel many kilometres. It is also distributed by water, stock and machinery, or on the bark of milled trees. Seed may be viable in the soil for more than 25 years. Regular inspection of areas cleared of Nassella tussock is therefore necessary to prevent re-establishment.

Intensive control measures over 25 years have reduced the incidence of Nassella tussock to three sites in the region, two in the Tangoio area and the other in the lower Tukituki area. Plant numbers in these two infestations are now low. Any failure to remove all Nassella tussock plants before seeding perpetuates the problem as the amount of seed produced by a mature plant, and the mechanism of wind dispersal of the seed contribute to a high potential for spreading. By stopping seeding, and given the present limited distribution of Nassella tussock in the Hawke's Bay region, an opportunity exists to eradicate this plant pest.

Long-term goal

To prevent significant adverse effects of Nassella tussock on the economic wellbeing of the region, through its eventual eradication.

Strategy Objective

To reduce the total known population of Nassella tussock to a point where it no longer poses a risk and prevent new infestations occurring.

Management regime

As the area occupied by the known population of *Nassella tussock* is now very small, HBRC will, at its discretion, carry out surveillance at least twice a year and control every known occurrence of this plant before seeds reach maturity.

4.4 Phragmites – *Phragmites australis*

Description

Phragmites australis, or common reed, is a wetland plant. It is widely distributed, ranging all over Europe, Asia, Africa, America and Australia, however, the origin of the species is unclear. It was harvested for use in thatching in Britain. The species is invasive.

It can grow up to 6 metres high in dense stands and is long-lived. *Phragmites* is capable of reproduction by seeds, but primarily does so by means of spreading rhizomes.

Phragmites grows in marshes and swamps, along streams, lakes, ponds, ditches and wet wastelands. It is often weedy and very difficult to eradicate as the rhizomes may reach 10 metres or more in length. It grows best in firm mineral clays and tolerates moderate salinity where water level fluctuates from 15cm below soil surface to 15cm above.

Phragmites is found at a few sites in some of the streams and drains in and around the Napier City urban area.

Long-term goal

To prevent significant adverse effects of *Phragmites australis* on the economic wellbeing and recreational values of the region through eventual eradication.

Strategy Objective

To reduce the total known population of *Phragmites* to the point where it no longer poses a risk and prevent new infestations from occurring.

Management regime

As the area occupied by the known population of *Phragmites australis* is now very small, Hawke's Bay Regional Council will, at its discretion, carry out surveillance at least twice a year and control every infestation occurrence of this plant. This control is currently being funded by MAF as part of its National Interests Pest Response programme.

4.5 Privet – *Ligustrum sinense* and *Ligustrum lucidum*

Description

There are two common types of Privet. Tree privet and Chinese privet. Tree privet (*Ligustrum lucidum*) is a broad leaved, large, hairless shrub growing up to ten metres in height. The leaves are egg-shaped and are up to 12 cm long. Chinese privet (*Ligustrum sinense*) is a more densely branched shrub growing up to five metres in height with smaller lightly hairy leaves up to seven centimetres long. Both species produce terminal clusters of white flowers and black or blue-black berries.

This Strategy has rules for the control of both Tree privet and Chinese privet and refers to both simply as Privet. Privet is mainly found in home gardens in the urban areas where it has been planted as a specimen shrub or as a hedge.

Long-term goal

To prevent significant adverse effects of Privet on human health, through eventual eradication in the control areas identified in this strategy.

Strategy Objective

To systematically remove privet from within urban areas.

Management regime

HBRC will, at its discretion, carry out surveillance at least twice a year and control every known infestation of this plant before seeds reach maturity.

4.6 Spiny emex – *Emex australis***Description**

Spiny emex is an annual weed that mainly occurs in sandy soils. It has dull green leaves similar to dock, rounded at the tip and square at the base. Seeds have three sharp spines, are hard and are enclosed in a triangular 5mm long nut. The seed is spread by machinery and animals.

Spiny emex is known to occur in only two areas in Hawke's Bay - at Whakaki and between Napier and Bayview. Both of these areas are low fertility, sand or gravel, coastal sites.

Long-term goal

To prevent significant adverse effects of Spiny emex on the economic wellbeing and recreational values of the region, through eventual eradication.

Strategy Objective

To reduce the total population of Spiny emex to the point where it no longer poses a risk and prevent new infestations from occurring.

Management regime

As the area occupied by the known population of Spiny emex is now very small, HBRC will, at its discretion, carry out surveillance at least twice a year and control every known infestation of this plant before seeds reach maturity.

4.7 White edged nightshade – *Solanum marginatum***Description**

White edged nightshade is a spiny shrub, which can form dense thickets. It can grow up to 2.5m high, and has woody stems, white to light blue flowers, and yellow-green berries about 4 cm in diameter. The berries are poisonous. Leaf margins are pale but its most distinguishing features are spines on both sides of the leaves and thorns on the stems. Its seed is spread by attaching to sheep fleeces, through birds eating its berries, and by machinery.

White edged nightshade was first discovered in the region in 1984, on one property at Eskdale. It remains restricted to that area. White edged nightshade was close to being eradicated in 1989, until a pine plantation was harvested and a new population germinated from bird dispersed seed.

Long-term goal

To prevent significant adverse effects of White edged nightshade on human health and economic wellbeing, through eventual eradication.

Strategy Objective

To reduce the total known population of white edged nightshade to a point where it no longer poses a risk and prevent new infestations from occurring.

Management regime

As there is only one known infestation of White edged nightshade in Hawke's Bay, HBRC will, at its discretion, carry out surveillance at least twice a year and control every known infestation of this plant before seeds reach maturity.

4.8 Yellow water lily – *Nuphar lutea*

Description

Yellow water lily is a perennial aquatic plant, with floating leaves up to 40 cm long and 30 cm wide, and bright yellow buttercup-like flowers up to 6 cm across which rise well clear of the water. The flowers produce viable seeds. The plant grows from the water's edge into water up to 2 metres deep, and can be found in permanent water of lakes and slow-flowing streams over mud and silt.

Yellow water lily is found in only two sites in New Zealand – Horseshoe Lake at Patangata, and a nearby farm dam. Since 1986 this plant has been controlled and its area has been reduced from covering most of the two water bodies, to a few isolated spots. It can be spread via the transport of rhizomes and seeds on boats and machinery.

Long-term goal

To prevent significant adverse effects of Yellow water lily on aquatic life, water quality, recreational values and economic wellbeing of the region through eventual eradication.

Strategy Objective

To reduce the total known population of Yellow water lily to the point where it no longer poses a risk and prevent new infestations from occurring.

Management regime

As the area occupied by the known population of Yellow water lily is now very small, HBRC will, at its discretion, carry out surveillance at least twice a year and control every known infestation of this plant before seeds reach maturity.

5 Total Control (Occupier Responsibility) plant pests

For each of the ten Total Control (Occupier Responsibility) plant pests, a brief description is provided and the management regime for how these plants will be controlled is outlined.

5.1 Apple of Sodom – *Solanum linnaeanum*

Description

Apple of Sodom is a strong, spiny, woody, perennial shrub growing up to 1.5 meters or more tall. It is a native of North Africa. Leaves and branches have stout prickles. Flowers are mauve or violet followed by green and white mottled globular berries (25 mm in diameter), which ripen to yellow. Leaves are egg shaped to oblong (up to 9 cm long by 7 cm wide), deeply and irregularly divided into lobes with shallowly waved margins.

The known distribution of Apple of Sodom is centred on Bay View, stretching from Napier to Tangoio. It is bounded inland by a line from Waipunga Road across to Seafield Road.

Apple of Sodom has been confined to the Bay View area for many years. It has recently started to spread and is now causing concern to land occupiers. Large numbers of seeds are produced from the berries, and are being spread by birds and animals. The seeds germinate and sprout mid spring till the end of summer. Apple of Sodom occurs in the North Island only; it is common on coastal and inland areas around Auckland.

Long-term goal

To prevent significant adverse effects of Apple of Sodom on the human health and economic wellbeing of the region by containing infestations to their present sites.

Strategy Objective

To contain the population of Apple of Sodom within the known infested properties.

Management regime

Apple of Sodom is designated as a Total Control (Occupier Responsibility) plant pest throughout the Hawke's Bay region.

Occupiers are responsible for the control of Apple of Sodom on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of Apple of Sodom under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Apple of Sodom in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control Apple of Sodom on rateable land.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion, and as set out in an approved control programme, meet up to 50% of the cost of Apple of Sodom control on rateable land, with a maximum contribution being \$3,000.

Rule: Apple of Sodom (*Solanum linnaeanum*)

Unless the occupier of land has entered into a control programme approved by Hawke's Bay Regional Council for the control of Apple of Sodom on that land the occupier shall:

1. Before the production of hard seed, destroy all plants of Apple of Sodom on his or her land.
2. Prevent the movement of plant pests of Apple of Sodom, including seed and soil likely to contain seed, from the infested site.

A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

5.2 Australian sedge – *Carex longibrachiata*

Description

Australian sedge is a perennial, tussock forming sedge. The flowering stems are triangular in cross-section and sharply angled. Flowers are grouped in catkin-like spikes that hang at the end of long, thin nodding stalks. The seed is a small, smooth triangular nut. The plant normally flowers and seeds from October to February. Australian sedge is distinguishable from other species of *Carex* in New Zealand by the way it shoots from the bottom of the original stalk with its distinctive flowers/seed head.

This plant prefers land which is seasonally dry and is well suited to the climate and soils of Hawke's Bay, but does not compete successfully with vigorous, well managed pastures. Australian sedge is a prolific seeder, but the seeds are relatively heavy and most fall close to the parent plant. Animals may spread seeds. The leaves are generally not palatable to stock. Once established it can be difficult to control.

Australian sedge is confined to the North Island. Infestations in Hawke's Bay occur throughout the Wairoa District.

Long-term goal

To prevent significant adverse effects of Australian sedge on the economic wellbeing and biological diversity of the region by containing infestations to their present sites.

Strategy Objective

To contain the population of Australian sedge within the known infested properties.

Management regime

Australian sedge is designated as a Total Control (Occupier Responsibility) plant pest throughout Hawke's Bay.

Occupiers are responsible for the control of Australian sedge on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of Australian sedge under section 122 of the

Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Australian sedge in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control Australian sedge on rateable land.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control Australian sedge on rateable land and as set out in an approved management programme meet up to 50% of the cost of the Australian sedge control on rateable land, with a maximum contribution being \$3,000.

Rule: Australian sedge (*Carex longibrachiata*)

Unless the occupier of land has entered into a control programme approved by Hawke's Bay Regional Council for the control of Australian sedge on that land the occupier shall:

1. Before the production of hard seed, destroy all plants of Australian sedge on his or her land.
2. Prevent the movement of plant parts of Australian sedge, including seed and soil likely to contain seed, from the infested site.

A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

5.3 Chilean needle grass – *Nassella neesiana*

Description

Chilean needle grass is a perennial grass that can grow to more than 1 m in height. It is a native of South America. The plant grows best in dry open habitats in low fertility areas, making many areas in Hawke's Bay prone to invasion. The plant is capable of seeding by 3 methods:

- a) aerial seeding;
- b) basal seeding (cleistogenes);
- c) stem seeding.

Aerial seeding is recognised by its panicle form (similar in appearance to Oats). The flowering seed head grows from 20 cm to over a metre in height. Each seed is encased by two distinctly purple coloured glumes. The seed of the panicle has a long (7-10cms) green awn attached to it that darkens in colour when the seed is mature. On close inspection between the glumes the seed will be found. The seed is some 10-12mm long, dart shaped with a very sharp needle like point. The seeds of the panicle are mainly spread by attaching to the wool or hair of stock, machinery, water, hay or clothing.

Cleistogene seed is around 1mm in diameter and 2mm long with no awn. These seeds are initiated in autumn and are mature by the time the aerial seed head emerges.

Stem seeds are found at the nodes between the leaf sheath and the stem and may or may not be awned. Stem seeds are between 0.5-1.0mm in diameter and 2-3mm long.

The plant is generally palatable to stock in early spring but becomes less palatable to stock as it matures. Eradication of Chilean needle grass is difficult once the grass is established, as seeds remain viable for at least 25 years.

Chilean needle grass has been identified in summer dry areas in the Hawke's Bay region - west of Napier, and on land at Maraekakaho, Poukawa, Waipawa, Wakarara, Omakere and Porangahau.

Long-term goal

To prevent significant adverse effects of Chilean needle grass on the economic wellbeing of the region, by containing infestations to their present sites.

Strategy Objective

To contain the population of Chilean needle grass within the known infested properties.

Management regime

Chilean needle grass is designated as a Total Control (Occupier Responsibility) plant pest throughout Hawke's Bay.

Occupiers are responsible for the control of Chilean needle grass on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. An approved programme will qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

The development of a control plan will enable an occupier to set out how it is intended to meet the objectives of the Strategy over which the infestation lies. Council will approve plans where they believe that the land occupier has adequately provided for the containment of the infestation in accordance with the Strategy.

Where an occupier does not adhere to the approved programme, an authorised person may issue directions for the control or eradication of Chilean needle grass under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Chilean needle grass in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion assist land occupiers to control Chilean needle grass on rateable land.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion and as set out in an approved control programme meet up to 50% of the cost of Chilean needle grass control on rateable land, with a maximum contribution being \$3,000.

Research:

Hawke's Bay Regional Council will continue to investigate appropriate land management systems and biological agents for control of Chilean needle grass.

Rule: Chilean needle grass (*Stipa neesiana*)

Unless the occupier of land has entered into a control programme approved by Hawke's Bay Regional Council for the control of Chilean needle grass on that land the occupier shall:

1. Destroy all plants of Chilean needle grass on his or her land at or before the early flowering stage before kernel (seed) development has occurred.

2. Prevent the movement of plant parts of Chilean needle grass, including seed and soil likely to contain seed, from the infested site.
A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

5.4 Cotton thistle – *Onopordum acanthium*

Description

Cotton thistle is a prickly biennial thistle, which forms large rosettes. It has spiny blue grey leaves and stems covered with white cottony hairs. The flowers are purple. The plant invades light broken ground in low rainfall areas and on lightly grazed, low fertility pastoral land. Because of its extremely hairy leaf it is very difficult to control using chemical methods and can tolerate commonly used hormone sprays. It can also tolerate droughts. It is spread mainly by animals and machinery.

The distribution of Cotton thistle in the Hawke's Bay region is presently limited to the Maraekakaho area, and between Napier and Bayview.

Long-term goal

To prevent significant adverse effects of Cotton thistle on economic wellbeing and recreation values of the region by containing infestations to their present sites.

Strategy Objective

To contain the population of cotton thistle within the known infested properties and reduce its population within these.

Management regime

Cotton thistle is designated as a Total Control (Occupier Responsibility) plant pest throughout the Hawke's Bay region.

Occupiers are responsible for the control of Cotton thistle on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of Cotton thistle under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Cotton thistle in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control Cotton thistle on rateable land.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion, and as set out in an approved control programme meet up to 50% of the cost of Cotton thistle control on rateable land, with a maximum contribution being \$3,000.

Rule: Cotton thistle (*Onopordum acanthium*)

Unless the occupier of land has entered into a control programme approved by Hawke's Bay Regional Council for the control of Cotton thistle on that land the occupier shall:

1. Before the production of hard seed, destroy all plants of Cotton thistle on his or her land.
2. Prevent the movement of plant pests of Cotton thistle, including seed and soil likely to contain seed, from the infested site.

A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

5.5 Japanese honeysuckle – *Lonicera japonica*

Description

Japanese honeysuckle is a vigorous, perennial, climbing vine with oval leaves in opposite pairs and sweetly scented tubular white flowers. It flowers from September to May. Fruit are small black berries. Its habitats are fences, hedges, trees, banks, forest margins and clearings.

The major infestations of Japanese honeysuckle in the Hawke's Bay region occur from the Esk valley to northern Wairoa.

Long-term goal

To prevent significant adverse effects of Japanese honeysuckle on indigenous species, ecosystems, and biological diversity in the vicinity of Lake Tutira.

Strategy Objective

To reduce the population of Japanese honeysuckle within one kilometre of the shores of Lake Tutira.

Management regime

Japanese honeysuckle is designated as a Total Control (Occupier Responsibility) plant pest within the area shown in Figure 4. This area makes up the Japanese honeysuckle Control Areas for the purposes of this Strategy.

Occupiers are responsible for the control of Japanese honeysuckle on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of Japanese honeysuckle under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Japanese honeysuckle in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control Japanese honeysuckle on rateable land, within the Japanese honeysuckle Control Area.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion, and as set out in an approved control programme meet up to 50% of the cost of Japanese honeysuckle control on rateable land, with a maximum contribution being \$3,000.

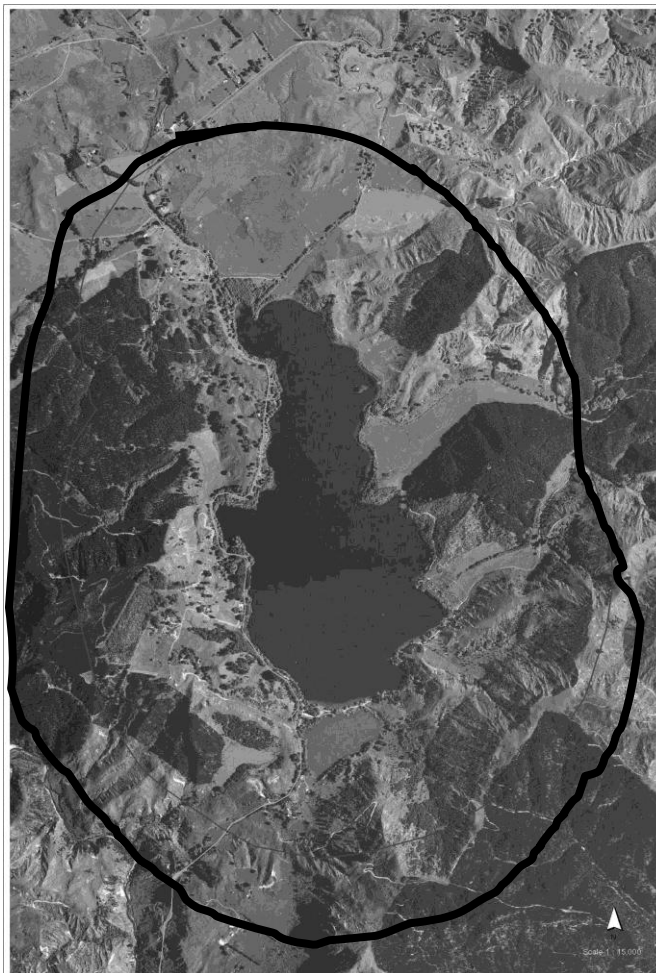


Figure 2: Japanese honeysuckle control area around Lake Tutira

Rule: Japanese honeysuckle (*Lonicera japonica*)

Unless the occupier of land within the Japanese honeysuckle Control Area (as shown in Figure 2) has entered into a control programme approved by Hawke's Bay Regional Council for the control of Japanese honeysuckle on that land the occupier shall, before the production of hard seed, destroy all plants of Japanese honeysuckle on his or her land. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

5.6 *Pinus contorta* – *Pinus contorta*

Description

Pinus contorta is a two-needled pine of varied form. It can be a stunted bush with twisted branches or a medium sized tree up to 25m. Mature trees are normally darker green than *Pinus radiata*. The cones are small (less than 6 cm long) and green with a rough exterior and remain closed for long periods before bursting with fertile seeds. The seeds are very small and light and are capable of spreading long distances with the wind.

Trees typically produce seed after four or five years. It is usually found in alpine and sub-alpine areas and can grow in dense groups over a wide range of habitat. *Pinus contorta* is an

aggressive coloniser, particular at higher altitudes and is usually more competitive than native tussock.

Pinus contorta mainly occurs in the Kaweka Ranges and upland Rangitaiki areas and along the western margins of the region. Owing to its hardiness, it is used as a shelter belt species in the southern Rangitaiki area.

Long-term goal

To prevent significant adverse effects of *Pinus contorta* on biological diversity and recreational values of the region by containing the infestation to its present sites.

Strategy Objective

To contain the population of *Pinus contorta* within the known infested properties and to reduce its population within these.

Management regime

Pinus contorta is designated as a Total Control (Occupier Responsibility) plant pest throughout Hawke's Bay.

Occupiers are responsible for the control of *Pinus contorta* on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of *Pinus contorta* under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage *Pinus contorta* in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control *Pinus contorta*.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion and as set out in an approved control programme meet up to 50% of the cost of *Pinus contorta* control on rateable land, with a maximum contribution being \$3,000. The incentive scheme is provided to generally target areas of infestation that serve as significant seed sources.

Rule: *Pinus contorta*

Unless the occupier of land has entered into a control programme approved by Hawke's Bay Regional Council for the control of *Pinus contorta* on that land the occupier shall:

1. Before the production of hard seed, destroy all plants of *Pinus contorta* on his or her land.
2. Prevent the movement of plant pests of *Pinus contorta*, including seed and soil likely to contain seed, from the infested site.

A breach of this rule is an offence under section 154 of the Biosecurity Act 1993

Explanation

The long-term goal is to stop the spread of *Pinus contorta* within Hawke's Bay. While acknowledging the environmental threats posed by this plant, Hawke's Bay Regional Council recognises the need to be sensitive to the present use of *Pinus contorta* in shelterbelts and other plantations. It is unreasonable to require land occupiers to immediately remove all plants of *Pinus contorta* where they have been planted for shelter. The management regime therefore provides for a progressive control over time.

The Department of Conservation control *Pinus contorta* pursuant to the "East Coast Hawke's Bay Conservancy Wilding Pine Strategy" (Department of Conservation, 1999). This is recognised as an approved control programme under this Strategy.

5.7 Old man's beard – *Clematis vitalba*

Description

Old man's beard was introduced to New Zealand early last century as a garden plant. It is a deciduous, perennial vine that grows up to 5m per year. Older vines are woody, often brown or grey, although young vines are ribbed and often purple in colour. The leaf is composed of five leaflets. Loosely branched inflorescences of creamy-white flowers (2-3 cm across) are produced from December to May, which then produce conspicuous fluffy greyish white seed heads in autumn, winter and early spring. The seeds are dispersed by birds, wind, water or gravel distribution. It can also grow from stem fragments. Old man's beard uses other plants for support and forms a dense canopy that deprives the support plants of sunlight and eventually kills them. Its habitat is typically scrubland, wasteland, riverbanks, hedgerows and native bush margins.

Old man's beard is widespread south of State Highway 5 in Hawke's Bay. The Council do not believe that the benefits of control in this area would outweigh the costs imposed on land occupiers in continuing to require them to control Old man's beard. Council will continue to provide financial support for any land occupier who chooses to carry out control measures.

North of State Highway 5 in Hawke's Bay, Old man's beard is not so widespread and Council believe that this is still worthwhile to require land occupiers to continue to control it.

The Old man's beard control line is defined for this Strategy as being the line defined by State Highway 5 from the region's western boundary to its junction with State Highway 2, then along State Highway 2 from its junction with State Highway 5 to the Esk River, then down the Esk River from the State Highway 2 bridge to the sea as shown in Figure 3.

Long-term goal

To prevent significant adverse effects of Old man's beard on indigenous species, ecosystems and biological diversity by containing infestations North of the Old man's beard control line to their present sites.

Strategy Objective

To contain the population of Old man's beard within the known infested properties and to reduce its population within these.



Figure 3: Old man's beard control area

Management regime

Old man's beard is designated as a Total Control (Occupier Responsibility) plant pest in Hawke's Bay.

Occupiers are responsible for the control of Old man's beard on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of Old man's beard under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Old man's beard in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control Old man's beard on rateable land.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion, and as set out in an approved control programme meet up to 50% of the cost of Old man's beard control on rateable land, with a maximum contribution being \$3,000.

Rules: Old man's beard (*Clematis vitalba*)

Unless the occupier of land north of the Old man's beard control line, as defined above, has entered into a control programme approved by Hawke's Bay Regional Council for the control of Old man's beard on that land the occupier shall:

1. Before the production of hard seed, destroy all plants of Old Man's beard on his or her land.
2. Prevent the movement of plant parts of Old man's beard, including seed and soil likely to contain seed, from the infested site

A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

Note: Old man's beard is listed in the Pest Management Strategy as a pest in Hawke's Bay. Therefore, as outlined in the management regime above, the Council has power under the Biosecurity Act to require land occupiers throughout Hawke's Bay to control Old man's beard. In the southern half of Hawke's Bay the Council may, at its discretion, use its power to require control of Old man's beard in situations where it is threatening specific ecological values or causing nuisance on properties in its vicinity.

5.8 Saffron thistle – *Carthamus lanatus*

Description

Saffron thistle is a prickly, bushy annual or biennial thistle with woody stems. It grows to about 1 m high, and has yellow flowers. It occurs predominantly in summer dry pastureland and can form impenetrable stands. Seed dispersal is mainly by stock wool or hair, machinery, and water. The seeds are not dispersed by wind, as they are too heavy.

Saffron thistle occurs as small infestations scattered throughout the region.

Long-term goal

To prevent significant adverse effects of Saffron thistle on the economic wellbeing and recreational values of the region, by containing infestations to their present sites.

Strategy Objective

To contain the population of Saffron thistle within known infested properties and to reduce its population within these.

Management regime

Saffron thistle is designated as a Total Control (Occupier Responsibility) plant pest throughout Hawke's Bay.

Occupiers are responsible for the control of Saffron thistle on their land. Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the incentive scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of Saffron thistle under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Saffron thistle in accordance with the Strategy Rule.

Service delivery

Owing to the long-term viability of seeds, Hawke's Bay Regional Council will continue to monitor all sites from which Saffron thistle has been eradicated as part of its surveillance programme.

Hawke's Bay Regional Council will, at its discretion, assist land occupiers to control Saffron thistle on rateable land where the area of infestation is small.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion, and as set out in an approved control programme meet up to 50% of the cost of Saffron thistle control on rateable land, with a maximum contribution being \$3,000.

Rule: Saffron thistle (*Carthamus lanatus*)

Unless the occupier of land has entered into a control programme approved by Hawke's Bay Regional Council for the control of Saffron thistle on that land the occupier shall:

1. Before the production of hard seed, destroy all plants of Saffron thistle on his or her land.
2. Prevent the movement of plant parts of Saffron thistle, including seed and soil likely to contain seed, from the infested site.

A breach of this rule is an offence under section 154 of the Biosecurity Act 1993

5.9 Woolly nightshade – *Solanum mauritianum*

Description

Woolly nightshade is a spreading shrub or small tree growing up to 5m tall. Its leaves are large (up to 25 cm long by 10 cm wide), pointed at both ends and covered in thick hairs, especially on the lower surface, and produce an unpleasant smell when crushed. It has small lilac flowers in clusters and produces green berries that are yellow when ripe. Flowering continues for most of the year. It grows in open locations, forest and plantation margins, scrub and waste land.

During the last 6 years, Hawke's Bay Regional Council has undertaken a programme to raise public awareness about this plant and the need to eradicate it. Consequently, there has been a major reduction in the number of plants occurring in both urban and rural areas.

In Hawke's Bay, Woolly nightshade can grow anywhere but is mainly found in the more temperate urban areas.

Long-term goal

To prevent significant adverse effects of Woolly nightshade on human health and economic well being of the region, by containing infestations to their present sites.

Strategy Objective

To contain the population of Woolly nightshade within known infested properties and to reduce its population within those.

Management regime

Woolly nightshade is designated as a Total Control (Occupier Responsibility) plant pest throughout Hawke's Bay.

Occupiers are responsible for the control of Woolly nightshade on their land. They are also responsible for the costs of control. Control may be carried out under a programme approved by Hawke's Bay Regional Council.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control or eradication of Woolly nightshade under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage Woolly nightshade in accordance with the Strategy Rule.

Service Delivery

Hawke's Bay Regional Council will, at its discretion, carry out surveillance for Woolly nightshade, and assist land occupiers to control every known occurrence of this plant before seeds reach maturity.

Incentive Scheme

Hawke's Bay Regional Council will, at its discretion, and as set out in an approved control programme, meet up to 50% of the cost of Woolly nightshade control on rateable land with a maximum contribution being \$3,000.

Rule: Woolly nightshade (*Solanum mauritianum*)

Unless the occupier of land has entered into a control programme approved by Hawke's Bay Regional Council for the control of Woolly nightshade on that land the occupier shall:

1. Before the production of hard seed, destroy all plants of Woolly nightshade on his or her land.
2. Prevent the movement of plant parts of Woolly nightshade, including seed and soil likely to contain seed, from the infested site.

A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

6 Boundary Control plant pests

For each of the six Boundary Control Plant Pests, a brief description is provided. The management regime and rules of how these plants are to be controlled is then provided.

6.1 Bathurst bur – *Xanthium spinosum*

Description

Bathurst bur is a spiny woody annual growing up to 1m tall. It is a native of South America. Flowers are inconspicuous and its fruit develops into small oval burs that are covered with slender hooks. The hooks aid dispersal by animal wool or hair, and clothing.

Bathurst bur grows in a range of habitats and is particularly invasive in wasteland and other open, unshaded areas. It is widespread throughout the Hawke's Bay region in both pastoral and cropping areas.

Long-term goal

To prevent any significant increase in the adverse effects of Bathurst bur on the economic wellbeing of the region.

Strategy Objective

To prevent the spread of Bathurst bur on to adjacent, uninfested properties.

6.2 Blackberry – *Rubus fruticosus agg.*

Description

Blackberry is a prickly, scrambling perennial shrub with stems up to 8m long that was introduced for its edible berries. It inhabits roadsides, hedges, pasture, wasteland, forest and plantation margins, scrub, and the berms of waterways. It is spread mainly by birds, although stems will root where they touch the ground.

Lightly grazed areas and wasteland in areas with moderate rainfall are particularly susceptible. In 1925 Blackberry was claimed to be New Zealand's worst weed, but is now considered to be not such a problem owing to advances in mechanical and chemical control methods. Blackberry is widespread throughout the Hawke's Bay region, especially north of Napier.

Long-term goal

To prevent any significant increase in the adverse effects of Blackberry on economic wellbeing and recreation.

Strategy Objective

To prevent the spread of Blackberry on to adjacent, uninfested properties.

6.3 Gorse – *Ulex europaeus*.

Description

Gorse is a spiny, perennial shrub up to 4m tall. It is a native of Western Europe, and is now widely spread throughout the world. It was introduced as a hedging plant, and is now the most widespread exotic scrub species in New Zealand. Gorse has a very deep taproot and extensive lateral roots just below the soil surface, and can form dense stands that exclude all

other plants. It is able to grow almost anywhere, and is particularly abundant in poorly grazed areas, low fertility pasture land, river areas and wasteland. Its seeds can remain viable for up to 80 years in the soil. Seedpod explosion, water and machinery are its main methods of spreading.

Gorse is very quick to establish in poorly managed and drought prone areas, therefore its use as a nurse-crop for native species and stabilising hillsides is a risky management option that is not promoted. Gorse is widespread throughout the Hawke's Bay region.

Long-term goal

To prevent any significant increase in the adverse effects of Gorse on economic wellbeing, human health and recreational values.

Strategy Objective

To prevent the spread of Gorse on to adjacent, uninfested properties.

6.4 Nodding thistle – *Carduus nutans*

Description

Nodding thistle is a spiny leafed annual or biennial that can grow up to 1.5 m in height. It has dark green upper surface leaves with irregular toothed lobes. Flowers are purplish-mauve and droop or "nod" at right angles to the stem when mature. It grows in pasture, on roadsides, on wasteland, and among crops. It thrives in all areas with light, free draining soil and low to medium rainfall. Drought prone areas in the Hawke's Bay region are particularly susceptible. It is spread by stock, hay, machinery, water and wind.

Nodding thistle is widespread throughout the Hawke's Bay region. However, biological control measures mean that in most seasons it is reasonably controlled.

Long-term goal

To prevent any significant increase in the adverse effects of Nodding thistle on economic wellbeing.

Strategy Objective

To prevent the spread of Nodding thistle on to adjacent, uninfested properties.

6.5 Ragwort – *Senecio jacobaea*

Description

Ragwort is a branched, biennial or perennial plant, which grows to 0.5 to 1.5m. It has numerous bright yellow flowers; slightly furry leaves and purplish coloured stems, which have an unpleasant smell when crushed.

Long-term goal

To prevent any significant increase in the adverse effects of Ragwort on the economic wellbeing of the region.

Strategy Objective

To prevent the spread of Ragwort on to adjacent, un-infested properties.

6.6 Variegated thistle – *Silybum marianum*

Description

Variegated thistle is a conspicuous, spiny, annual/biennial thistle. It forms a thick rosette of glossy dark green leaves with broad white patches around the veins on the upper surface. Flower heads are purplish-mauve. Drought conditions, such as those experienced in Hawke's Bay, are ideal for the establishment of this plant. It is spread mainly by stock, birds, water and machinery.

Variegated thistle is widespread throughout the Hawke's Bay region, especially in coastal areas.

Long-term goal

To prevent any significant increase in the adverse effects of Variegated thistle on the economic wellbeing of the region.

Strategy Objective

To prevent the spread of Variegated thistle on to adjacent uninfested properties.

Management regime for Boundary Control plant pests

Bathurst bur, Blackberry, Gorse, Nodding thistle, Ragwort and Variegated thistle are designated as Boundary Containment Control plant pests throughout the Hawke's Bay region.

Occupiers are responsible for the control of all Boundary Control plant pests on their land. They are also responsible for the costs of control. Control may be carried out under a programme approved by Hawke's Bay Regional Council.

Where an occupier does not adhere to the approved control programme, an authorised person may issue directions for the control of these plant pests under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved control programme, the occupier must manage these plant pests in accordance with the Strategy Rules.

Rules for Boundary Control plant pests

Rule: Bathurst bur (*Xanthium spinosum*)

Every occupier shall before the production of hard seed destroy all plants of Bathurst bur on his or her land within 5m of the property boundary if there is no Bathurst bur within 5m of the boundary on adjoining land, or, if the adjoining land is being cleared of Bathurst bur within 5m of the boundary. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

Rule: Blackberry (*Rubus fruticosus* agg.)

Every occupier shall before the production of hard seed destroy all plants of Blackberry on his or her land within 10m of the property boundary if there is no Blackberry within 10m of the boundary on adjoining land, or, if the adjoining land is being cleared of Blackberry within 10m of the boundary. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

Rule: Gorse (*Ulex europaeus*)

Every occupier shall before the production of hard seed destroy all plants of Gorse on his or her land within 10m of the property boundary if there is no Gorse within 10m of the boundary on adjoining land, or, if the adjoining land is being cleared of Gorse within 10m of the boundary. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

Rule: Nodding thistle (*Carduus nutans*)

Every occupier shall before the production of hard seed destroy all plants of Nodding thistle on his or her land within 20m of the property boundary if there is no Nodding thistle within 20m of the boundary on adjoining land, or, if the adjoining land is being cleared of Nodding thistle within 20m of the boundary. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

Rule: Ragwort (*Senecio jacobaea*)

Every occupier shall before the production of hard seed destroy all plants of Ragwort on his or her land within 20m of the property boundary if there is no Ragwort within 20m of the boundary on adjoining land, or, if the adjoining land is being cleared of Ragwort within 20m of the boundary. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

Rule: Variegated thistle (*Silybum marianum*)

Every occupier shall before the production of hard seed destroy all plants of Variegated thistle on his or her land within 5m of the property boundary if there is no Variegated thistle within 5m of the boundary on adjoining land, or, if the adjoining land is being cleared of Variegated thistle within 5m of the boundary. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

The required clearance distances required for the control of all Boundary Control plant pests are summarised in the Table 3 below.

Table 3 : Clearance distances for Boundary Control plant pests

Boundary control plant pests	Clearance distance required
Bathurst bur	5 m
Blackberry	10 m
Gorse	10 m
Nodding thistle	20 m
Ragwort	20 m
Variegated thistle	5 m

7 Unwanted Organisms

7.1 National Pest Plant Accord

Ministry of Agriculture and Forestry are responsible for coordinating the developing and managing the National Pest Plant Accord. The Accord is a list of plants that have been declared unwanted organisms, which regional councils have agreed to monitor for the purposes of breaches of section 52 and 53 of the Biosecurity Act.

HBRC undertakes regular surveillance for the unwanted organisms listed on the National Pest Plan Accord.

8 Regional Control Animals

Three animals are listed as regional control animal pests. They are:

- Possums;
- Feral Rabbits; and
- Rooks.

All of these animal pests have a significant adverse effect on the economic and environmental well being of the region. As well, possums pose a significant adverse effect on native biological diversity, human health, and affect the relationship Maori have with their traditions and lands.

For each animal pest, a brief description is provided, and the management regime for how these animal pests will be controlled is outlined.

8.1 Possum (*Trichosurus vulpecula*)

Description

The Australian Brushtail Possum is a nocturnal marsupial introduced and liberated in New Zealand by private individuals and acclimatisation societies between 1837 and 1898 to establish a fur trade. Possums were accorded various levels of protection until 1947. When it became clear that the environmental damage inflicted by them far outweighed any profit made from their skins, this protection was lifted.

Possums in New Zealand occur as two colour types, “blacks” and “greys”. Adult male blacks vary from rich red-brown to brown, the females have a darker or black-brown fur. Adult male greys are often strongly rufous in the neck and shoulders. The greys often have a distinct silver tinge in the fur.

Size and weight are dependent on habitat. In good conditions adult possums can weigh between 3 to 5 kilograms. Their life span is about nine years. Possums reach reproductive maturity at approximately two years of age. Usually females rear three young every two years.

Today possums are considered the major animal pest in New Zealand. In farming areas, they spread bovine tuberculosis to beef and dairy cattle, and to farmed deer, damage crops and orchards, kill poplars and willows planted to control hill-country erosion and stabilise riverbanks, and eat pasture. In exotic forest plantations they kill young trees and stunt the growth of older trees by ring-barking them or breaking the uppermost branches. In conservation areas, possums cause severe damage by altering habitats important to native animals. Tree species that are palatable to both possums and native birds (e.g.: rata, kamahi, and pohutukawa) become much reduced or locally extinct, and are replaced by plants that are less palatable such as tree ferns and pepperwood. As well as altering the composition of native forests and competing with native fauna, possums also prey directly on native insects and birds.¹

Possums can be found throughout Hawke's Bay. Possums are generally found in bush/pasture margins as these provide possums with a plentiful supply of food and suitable habitat.

There are two possum control programmes operating in Hawke's Bay at present. These are:

- (1) **Possum Control Areas**, where the Regional Council undertakes initial possum control and the landowners are then responsible for the maintenance of low possum numbers on their land. There are now approximately 440,000 hectares of land within Possum Control Areas.
- (2) **Animal Health Board bovine Tb vector control operations** as part of the National Pest Management Strategy for Bovine Tb undertaken by contractors with the aim of

¹ Landcare Research's information paper “Possums – their introduction & spread (14 July 1997)

eradicating Bovine tuberculosis (Tb). Council currently manages the programme in Hawke's Bay with the areas to be treated determined by AHB on the basis of risk of bovine Tb in domestic herds.

Long-term Goal

To minimise the adverse effects of possums on the region's biodiversity and economic prosperity.

Long-Term Objective

That possum numbers be reduced throughout the region by 2016 such that the average trap catch over any parcel of 500 hectares of land rated for animal pest control does not exceed 5%, with the maximum trap catch on any one line not to exceed 7%.

Strategy Objective

That by 30 June 2016 possum control measures will be operating over 900,000 hectares of productive land, ensuring that possum density on that land is below 5% trap catch.

Management regime

To achieve the Strategy objective of reducing possum densities across the region, Hawke's Bay Regional Council is seeking the continued support and assistance of land occupiers. The Council has identified a range of management methods that it will implement to achieve both the long-term goal and the strategy objective. The principal method is the establishment of "Possum Control Areas" where the Council arranges for initial possum control to low densities to be carried out and then requires land occupiers to maintain possum numbers at those low densities. Council will continue to assist in possum control on covenanted areas, subsidising possum bait, and providing advice and information to land occupiers.

1.0 Possum Control Areas

Three topics are covered in this section:

- a) **The creation of Possum Control Areas.**
These will be areas of land where a majority of land occupiers (75% based on area) have agreed to maintain low possum densities over their land.
- b) **Initial possum control.**
The Council will arrange for the initial possum control over all properties in a possum control area, to bring possum densities below 5% trap catch.
- c) **Maintenance**
Following initial possum control all land occupiers within a possum control area will be responsible for the ongoing maintenance of possum densities at or below 5% trap catch.

(a) The creation of Possum Control areas

The Council will assist land occupiers interested in controlling possums to establish Possum Control Areas. Information about the need to control possums, appropriate methods of possum control, and the responsibilities of Council and land occupiers, as set out in this Strategy, will be provided to all land occupiers within each proposed Possum Control Area.

The criteria below are used to establish a Possum Control Area:

- 1 The land occupiers of 75% of the area within the proposed Possum Control Area have agreed to maintain possum densities at or below 5% trap catch, following any necessary initial control work conducted over all of the Possum Control Area.
- 2 The Possum Control Area shall be bound by clearly defined boundaries such as rivers, streams, roads, ridgelines or legal boundaries, to help reduce the level of possum reinvasion; and
- 3 It should have a minimum size of 500 hectares.

Note: Hawke's Bay Regional Council will establish the boundaries for each Possum Control Area. Land occupiers within the Possum Control Area shall be required to allow access for initial control work to be undertaken over their land. They will then be bound to continue to maintain low possum numbers on their land in accordance with this Strategy.

(b) Initial Possum Control

Apart from production forestry land, HBRC will arrange and pay for the initial control work to reduce possum levels to no more than 5% trap catch over a Possum Control Area. HBRC will require access to properties and may use a variety of control techniques and pesticides. All control options will be discussed with land occupiers prior to any control work proceeding. The initial control will reduce possum densities to levels that private land occupiers can then maintain through their own actions.

How initial possum control will be conducted over different land categories within a Possum Control Area is set out below:

Private land:	HBRC will arrange and pay for the initial control to reduce possum densities to no more than 5% trap catch within the Possum Control Area.
Council land:	HBRC will arrange and pay for the initial control to reduce possum densities to no more than 5% trap catch over land that it occupies or manages.
Department of Conservation Land:	Where DoC land borders private land that is being included into a Possum Control Area, then a marginal strip no less than 300 metres into the DoC land will be included into the Possum Control Area. HBRC will arrange for the initial control work over that strip to reduce possum densities to no more than 5% trap catch. HBRC will seek to recover the costs associated with the initial possum control work from DoC.
Unproductive multi-ownership land:	Where unproductive multi-ownership land borders other private land that is being included into a Possum Control Area, then a marginal strip no less than 300 metres into the unproductive multi-ownership land will be included into the Possum Control Area. HBRC will arrange and pay for the initial control work over that strip to reduce possum densities to no more than 5% trap catch.
River margins:	Where a river falls into a Possum Control Area or forms a boundary to a Possum Control Area HBRC will arrange and pay for the initial possum control along the river margin to reduce possum densities to no more than 5% trap catch.
Production Forestry:	Where production forestry land borders other private land that is being included into a Possum Control Area, then a marginal strip no less than 300 metres into the production forestry land will be included into the Possum Control Area. HBRC will then direct the forest company to conduct initial possum control over that land to a level of no more than 5% trap catch. The forest company will meet the cost

of this work. Maintaining a marginal strip of 300m at a 5% RTC or less is likely to require control over an area of forest greater than 300m.

Regional boundaries: Where a Possum Control Area has a boundary with a regional authority, HBRC will negotiate with that authority to ensure protection of the boundary where possible. Adjoining regional authorities are: Manawatu-Wanganui Regional Council (Horizons), Waikato Regional Council, Bay of Plenty Regional Council and Gisborne District Council.

(c) Maintenance

The ongoing maintenance of possum densities within a Possum Control Area at or below 5% trap catch is the responsibility of the land occupier. Details of the requirements on land occupiers are set out as follows:

Private land occupiers: Occupiers of land in a Possum Control Area will at their own cost be responsible for maintaining possum densities at or below 5% trap catch. They may elect to carry out their own control or engage a contractor to carry out control.

Council: HBRC will maintain possum numbers at or below 5% trap catch on land that it occupies or manages within a Possum Control Area. (See River margins below).

Department of Conservation: HBRC will arrange maintenance control work over DoC land in a Possum Control Area. HBRC will seek to recover the costs associated with the maintenance control work from DoC.

River margins: The occupiers of land adjoining a river and in a Possum Control Area will at their own cost be responsible for the ongoing maintenance of the river margin. Where HBRC occupies or manages the land for river protection, it is deemed to be the occupier. The areas of responsibility will be clearly defined prior to initial control work proceeding.

Multi-ownership land: Occupiers of multi-ownership land in a Possum Control Area will at their own cost be responsible for maintaining possum densities at or below 5% trap catch. They may elect to carry out their own control or engage a contractor to carry out control.

Production forestry: Where production forestry land borders other private land that is being included into a Possum Control Area, then a marginal strip no less than 300 metres into the production forestry land will be included into the Possum Control Area. The Occupier is required to maintain this marginal strip below a 5% trap catch and will meet the cost of this work. Maintaining a marginal strip of 300m at a 5% trap catch or less is likely to require control over an area of forest greater than 300m.

Regional boundaries: Where a Possum Control Area borders a regional boundary, the occupier of the land in the Possum Control Area is responsible for maintaining possums at or below 5% trap catch at their cost.

2.0 Covenanted Areas

HBRC supports land occupiers covenanting areas of ecologically significant land in Hawke's Bay and has in the past carried out possum control over QEII covenanted areas. The regime outlined below continues the support for covenanted areas with Possum Control Areas.

For the purposes of this Pest Management Strategy, and possum control in particular, covenanted areas mean those lands which have a QEII Trust covenant. HBRC may at its discretion provide possum control assistance over the covenanted land, including Nga whenua rahui.

Covenanted areas within a Possum Control Area

Covenanted Area

Less than 20 hectares	HBRC will make available free possum bait to enable land occupiers to maintain possum densities below 5% trap catch over the covenanted land.
Greater than 20 hectares	HBRC will limit its assistance to the cost of the most cost effective maintenance technique necessary to allow a landowner to meet their Pest Management obligations.

Where a covenantor:

- Wishes to receive a greater level of pest control than that provided by this policy, they will be free to apply for assistance under the site-specific policy; or
- Disagrees with HBRC's opinion of what is the most cost effective maintenance technique, they will be required to meet the additional costs of maintenance.

3.0 Other Council Activities

a) Subsidy on possum control products

Hawke's Bay Regional Council will, within an annual budget and at its discretion, subsidise a range of possum baits and materials to land occupiers for the purpose of controlling possums.

b) Education

Hawke's Bay Regional Council will carry out community education programmes. These will aim to raise awareness of possum impacts, economic benefits of control, control methods, and the HBRC's self-help programme.

All land occupiers who are part of a Possum Control Area will be given training in the best methods of possum control and areas to target as part of the ongoing maintenance programme.

c) Monitoring

Possum density monitoring will be undertaken once the initial control work has been conducted to ensure that possum densities are below the 5% trap catch level.

Hawke's Bay Regional Council will monitor for compliance with this Strategy and any directions issued under section 122 of the Biosecurity Act. This will involve monitoring possum densities.

d) Enforcement

Where a land occupier does not adhere to the requirements of this Strategy, an authorised person may issue directions for the control or eradication of possums under section 122 of the Biosecurity Act.

On default, Hawke's Bay Regional Council may carry out work and recover the costs from the land occupier under sections 128 and 129 of the Biosecurity Act.

4.0 Previously controlled areas

When an Animal Health Board (AHB) possum control programme is withdrawn from an area, HBRC require the land occupiers within that area to form a Possum Control Area. Where a Possum Control Area is formed HBRC will either use relevant recent monitoring data or where that is not available, monitor the area to determine the possum densities. If required, HBRC will undertake any initial possum control work necessary to achieve possum densities at or below 5% trap catch and the land occupiers within the Possum Control Area will then be bound by the possum control rule in the Strategy. Where land occupiers do not wish to establish a Possum Control Area, HBRC will use its powers under Section 122 of the Biosecurity Act to direct the land occupiers to maintain possum densities at or below 5% trap catch.

Rule: Possum (*Trichosurus vulpecula*)

Every land occupier whose property has had initial possum control work carried out as part of either a Hawke's Bay Regional Council or Animal Health Board programme since 1 July 1999, such that possum densities over his or her land are below 5% trap catch, at the completion of that initial control or at the time of withdrawal of AHB, shall maintain possum densities on that land at or below 5% trap catch in accordance with Possum Control Areas – section (c) Maintenance. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

8.2 Rabbit (*Oryctolagus cuniculus*)

Description

The European Rabbit is mainly buff coloured with short ears, a small white tail, and white underparts. Rabbits were first released in New Zealand from Australia in the 1850's for sport, food and fur. By the 1890's numbers peaked causing significant soil erosion and reductions in stock carry capacity, which led to disaster in many sheep farming areas.

Rabbits breed throughout the year, with adult females producing about 50 young each year. However survival rates are very low. Rabbits are particularly susceptible to coccidiosis disease, prolonged wet conditions and predation by ferrets and cats. Rabbits thrive in low rainfall areas, with light sandy soils, in short closely cropped pastures, and in scrub cover.

Parts of the Hawke's Bay region have had major rabbit problems in the past. Most of these problems can be attributed to droughts, soil type, land development, pasture fertility, habitat, and farming practices. The severity of rabbit levels varies from location to location, but the rabbit population can explode in parts of the region when optimum conditions prevail.

With the spread of Rabbit Haemorrhagic Disease (RHD) throughout the region since 1998, a significant drop in rabbit numbers occurred. Rabbit numbers in excess of 4 on the McLean Scale were not encountered anywhere in the region during 1999. Rabbit numbers remain lower than historic pre RHD levels. However the level of immunity to RHD in rabbits is increasing as are rabbit numbers. HBRC has worked with two land occupiers over the past two years to reduce rabbit numbers on their properties. These operations have been successful.

Long Term Goal

To minimise the adverse effects of rabbits on the region's biodiversity and economic prosperity.

Strategy Objective

To ensure that rabbits are maintained below level 4. on the McLean Scale.

Table 4: The McLean Scale of rabbit infestations.

Infestation level	Scale
No rabbits or sign seen	1
No rabbits seen, some sign noticeable	2
Odd rabbit seen, sign and some buck heaps showing up	3
Pockets of rabbits, sign and fresh burrows very noticeable	4
Infestation spreading out from heavy pockets	5
Infestation over whole area and increasing	6
Infestation heavy, rabbits moving in droves, pasture damage, warrens	7
Infestation at high level throughout, severe pasture and vegetation damage	8
Infestation almost at peak	9
Maximum level, rabbits must spread out over wide area or starve	10

Management Regime

Service delivery

Hawke's Bay Regional Council will conduct targeted surveillance of the rabbit prone areas.

Subsidy Scheme

Hawke's Bay Regional Council will, at its discretion and as set out in an approved management programme, meet up to 50% of the cost of rabbit control on rateable land.

Monitoring

Hawke's Bay Regional Council will monitor for compliance with the rabbit control rule.

Periodic monitoring of rabbits will also be conducted at known or suspected RHD areas. This monitoring will be used to confirm the presence or absence of RHD, or any levels of immunity that may be building in the rabbit population.

Education

Hawke's Bay Regional Council will provide advice and education to land occupiers, including occupiers of small blocks, to encourage them to control rabbits by the most efficient and effective means. This work will comprise advising and educating individual land occupiers on ways of minimising the risk of rabbits impacting on their properties, participating in discussion groups, field days, preparing pamphlets and using media opportunities to convey relevant information.

Occupier responsibilities

Occupiers are responsible for the control of rabbits on their land.

Control may be carried out under a programme approved by Hawke's Bay Regional Council. The programme may qualify for a subsidy under the subsidy scheme. Otherwise control is totally at the occupier's own expense.

Where an occupier does not adhere to the approved management programme, an authorised person may issue directions for the control or eradication of rabbits under section 122 of the Biosecurity Act. On default, Hawke's Bay Regional Council may carry out work and recover the costs from the occupier under sections 128 and 129 of the Biosecurity Act.

In the absence of an approved management programme, the occupier must manage rabbits in accordance with the Strategy Rule.

Rule: Rabbit (*Oryctolagus cuniculus*)

Every land occupier shall from mid-January to mid-August maintain rabbit populations at or below level 4 of the McLean Scale over any part of their land. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

Release of Rabbit Haemorrhagic Disease (RHD)

Council will only release (or make available for release) RHD into the environment in Hawke's Bay where scientific advice on a specific area of infestation indicates that this approach would provide benefit to the region as a whole.

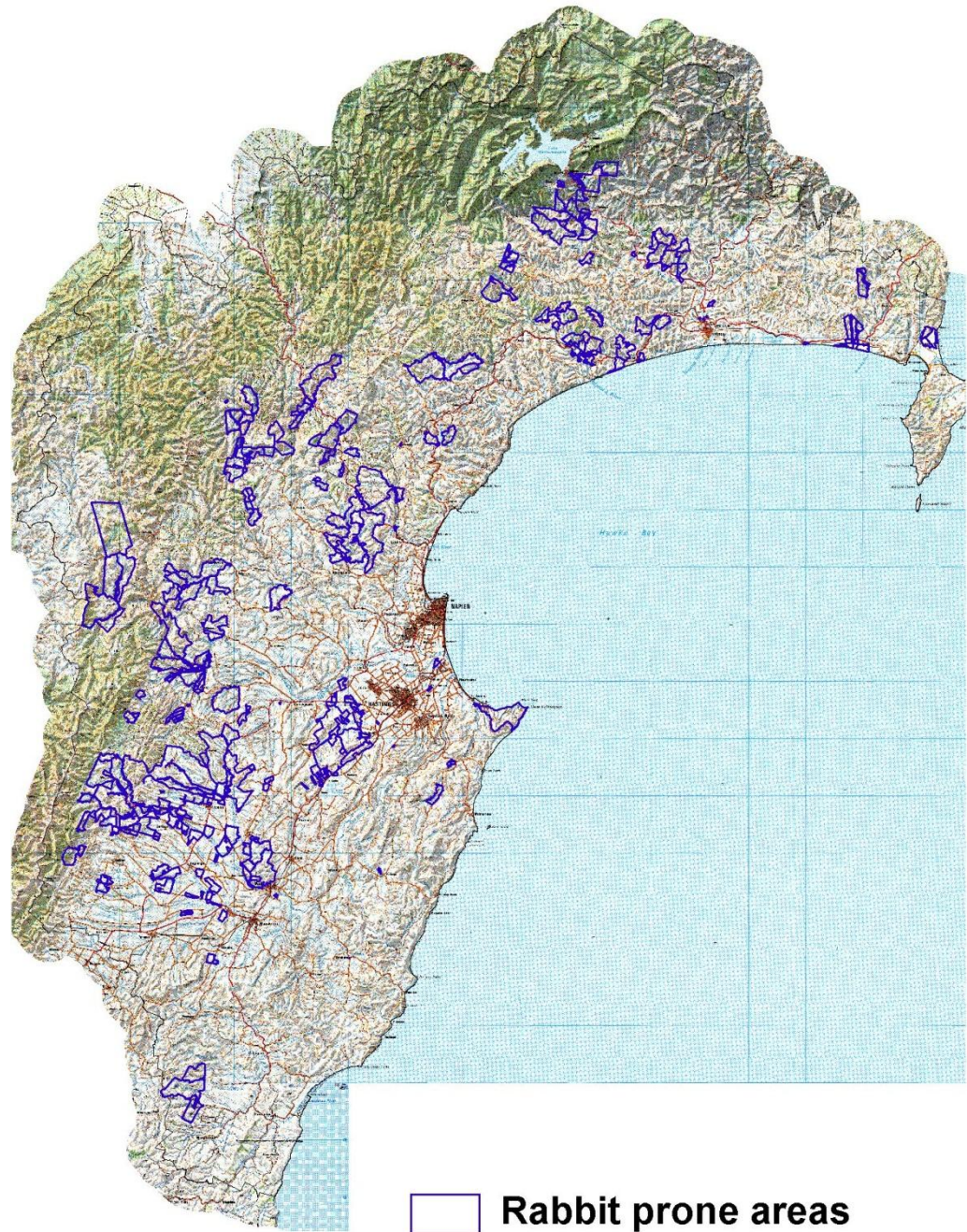


Figure 3: Rabbit prone areas in Hawke's Bay

8.3 Rook (*Corvus frugilegus*)

Description

Rooks are large, black birds with a violet-blue sheen. They are 30-50 cm long and fly with slow wing-beats displaying ragged wing-tips. Rooks nest in rookeries, comprising up to 150 nests and several hundred birds. The birds are native to Britain and Europe and were introduced by early settlers and liberated by acclimatisation societies throughout New Zealand between 1862 and 1873. They were introduced to control pasture pests, but their usefulness for this purpose is now considerably outweighed by the damage caused to agricultural crops and soils. For the majority of the year, rooks feed in small groups on soil invertebrates.

Rooks are easily disturbed and can become very wary and bait shy. This makes control difficult and can lead to rookeries fragmenting with birds colonising new areas.

Rooks are found throughout the Hawke's Bay region. During the 1980's and 1990's, the total population was reduced significantly as a result of poisoning operations. A survey during 1998 showed that there were approximately 109 occupied rookeries, with a total of 2,754 nests and 9,600 rooks. If left uncontrolled, it is estimated that the rook population would increase by 75% each year.

Over the last five years, HBRC has undertaken a combined ground and aerial rook control programme designed to achieve the objective of eradicating rooks north of SH5 and reducing and maintaining numbers below 7,000 birds south of SH5.

As well as controlling known rookeries HBRC continues to monitor for new rookeries. The ongoing control programme has meant that 20 of the 54 known rookeries within the eradication zone are no longer active and bird numbers are substantially lower across those rookeries that remain.

The greatest numbers of rooks occur in the Southern half of the region. To provide an effective control of rooks, an area clear of rooks in the Northern half of the region will be established, while maintaining rook numbers in the Southern half. Once the clear zone has been established the 'rook clear line' could then be progressively moved south. This is shown in Figure 5.

The 'rook clear line' is defined for this Strategy as being the line defined by State Highway 5 from the region's western boundary to its junction with State Highway 2, then along State Highway 2 from its junction with State Highway 5 to the Esk River, then down the Esk River from the State Highway 2 bridge to the sea.

Long Term Goal

To eradicate rooks from Hawke's Bay.

Strategy Objective

From North of the 'rook clear line' destroy all known rookeries by 30 June 2016.

From South of the 'rook clear line' reduce rook numbers to 4,000 birds by 31 December 2016 and maintain rooks, such that numbers do not exceed that amount in the future.

Management Regime

Service delivery

North of the 'rook clear line', all known rookeries will be destroyed by Hawke's Bay Regional Council by 30 June 2016, subject to climatic conditions being suitable.

South of the 'rook clear line', as described in Figure 5, Hawke's Bay Regional Council will provide an annual rook control service, when climatic conditions are suitable, to reduce the

population to a maximum of 4,000 birds by 31 December 2016. Rook numbers will then be kept at or below this level.

Education

Hawke's Bay Regional Council will provide information to land occupiers on rook identification, the potential adverse effects that they cause, who to contact for rook control, and the risks of inappropriate control.

Research

Hawke's Bay Regional Council will support research into alternative bait and toxin formulas for rook control, and alternative methods of rook control.

Monitoring

Hawke's Bay Regional Council will monitor rookeries in the region to determine bird numbers and their distribution at least once every three years.

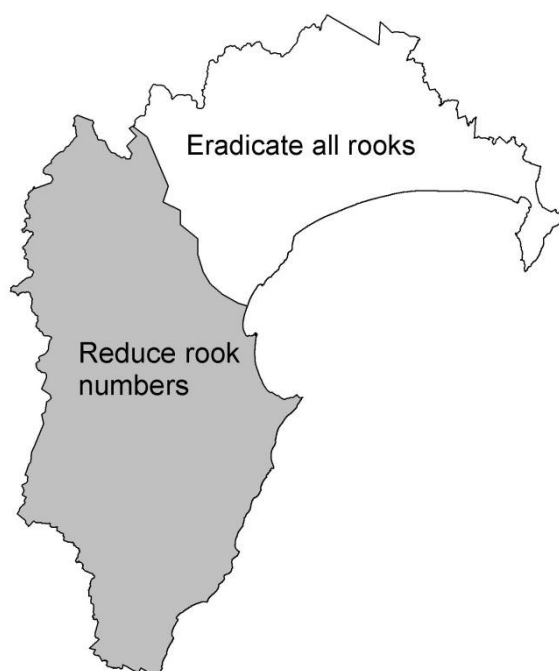


Figure 5: The two management areas for rook control

Rules: Rooks (*Corvus frugilegus*)

1. All land occupiers that have rooks nesting on their land shall take reasonable steps to ensure that no action is taken, other than by an authorised person pursuant to this Strategy, to disturb the birds in the rookeries. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.
2. No person may move or interfere with any article or substance left at a place by an authorised person pursuant to this Strategy for the purpose of:
 - i Confirming the presence, former presence, or absence of rooks; or
 - ii Managing or eradicating any rooks;other than in accordance with the direction or under the supervision of an authorised person. A breach of this rule is an offence under section 154 of the Biosecurity Act 1993.

9 Site Specific Control Animals

Although habitat loss and modification remains a threat to native biodiversity, a more an equally serious threat is from invasive introduced species. Plant pests and animal pests pose the greatest single greatest threat to our remaining natural ecosystems and habitats and threatened native species. They damage habitats and important ecosystem processes, and compete with indigenous species for food, and prey directly on them.

HBRC therefore wishes to assist land occupiers who want to protect and enhance native biodiversity at specific sites by providing financial and practical assistance to control a wide range of both plant pests and animal pests.

Before HBRC can assist a landowner to protect and improve the native biodiversity at any specific site the ecological and biodiversity values that need protecting need to be determined. Then the threats to those values need to be assessed. From this information an appropriate control programme can be developed and implemented.

What is a site led programme?

A site-led programme is the co-ordinated and integrated control of pests, unwanted organisms, and/or other harmful organisms in a defined area, that aims to protect specific ecological or biodiversity values, which are threatened by pests, unwanted organisms, and/or other harmful organisms. Site led programme focuses on the ecological or biodiversity values of the site rather than simply the control of pests. Values of sites can be put at risk by factors other than the presence of pests, unwanted organisms, and or other harmful organisms and these need to be taken into consideration before embarking on a site-led pest programme (e.g. fencing out stock).

What outcomes do we want to achieve?

A range of outcomes can be achieved through site led management. For example:

- Integrity of ecosystems are protected and enhanced
- Optimise ecological health where the benefits outweigh the costs
- Respond/support community concerns
- Improvement in breeding success and densities of native fauna
- Improvement in water quality

HBRC will monitor for the achievement of the outcomes being sought, rather than focusing on the output associated with traditional pest management.

Site-Specific Control Species

All plant and animal pests in the Regional Pest Management Strategy are candidates for site-specific pest control as are all unwanted organisms. Other species will be considered on a case-by-case basis (e.g., wilding pines) where the support of the land occupier is required.

In addition to the plant and animal pests already listed in the Regional Pest Management Strategy six groups of animals are included in this Strategy as Site-specific control animal pests. They are feral goats; feral deer; (feral pigs; Mustelids (weasels, ferrets, and stoats); feral cats; and rats (Norway and ship rats).

All of these animal pests have the potential to have a significant effect on the native biological diversity of the region.

The management regime for how these animal pests will be controlled is outlined below.

Management Regime

Subsidy scheme

Hawke's Bay Regional Council will, at its discretion and as set out in an approved management programme, meet up to 50% of the cost of control met by the land occupier (including a zero density target) for the Site specific control pests. Any such work shall be on land which it deems to have high ecological value, or such land that surrounds an area of conservation value to provide a sufficient buffer for protection.

Education

Hawke's Bay Regional Council may provide information and advice on the control of feral goats, feral pigs, feral deer, ferrets, stoats, rats and feral cats to affected occupiers and other interested parties.

Hawke's Bay Regional Council may educate and provide information to pet stores, veterinary clinics and animal shelters of the threat from weasels, ferrets, stoats, and feral cats and will provide advice on effective methods of animal control.

Research

Hawke's Bay Regional Council may contribute to national research programmes for site-specific control pests.

Control

Site-specific control animal pests are banned from sale, or release under sections 52 and 53 of the Biosecurity Act. Furthermore, no person shall breed, multiply or otherwise spread these animal pests. The penalties for a breach of section 52 & 53 are: for an individual person a fine of up to \$100,000 or up to five years in jail or both; for a corporation a fine of up to \$200,000.

Part Three

10 Regulatory Management

10.1 Powers for strategy implementation

To achieve the objectives of this Strategy, and give effect to its management, Hawke's Bay Regional Council will use the statutory powers listed in Table 5.

Pursuant to section 103 of the Biosecurity Act, the General Manager (as the Principal Officer) of Hawke's Bay Regional Council has appointed authorised persons and may delegate powers to any authorised person subject to section 105 of the Biosecurity Act. An authorised person may exercise the powers on behalf of Hawke's Bay Regional Council.

Table 5: Powers to be conferred for implementation of this Strategy.

Administrative power	Reference in the Biosecurity Act	Level of delegation
Power to act on default Liens Declaration of controlled area Duration of place and area declarations Options for cost recovery Failure to pay	section 128 section 129 section 131 section 133 section 135 section 136	Hawke's Bay Regional Council (as Management Agency)
The appointment of authorised and accredited persons Authorised persons to comply with instructions. Delegation to authorised persons Application of articles or substances from aircraft Power to act on default Liens	section 103 section 104 section 105 section 114a section 128 section 129	Principal officer of Hawke's Bay Regional Council
Power to require assistance Power of inspection Entry in respect of offences Duties on exercising power of entry Power to record information General powers Use of dogs and devices Power to seize evidence Power to seize abandoned goods Power to intercept baggage, etc. Power to examine organisms Power to apply article of substance to place Power to give directions Power to vaccinate, etc. Declaration of restricted place Enforcement of control areas	section 106 section 109 section 111 section 112 section 113 section 114 section 115 section 118 section 119 section 120 section 121 section 121a section 122 section 123 section 130 section 134	Authorised person

10.2 Enforcement procedures

The means by which the Hawke's Bay Regional Council may directly enforce this strategy, where necessary, is indicated below.

Issue of direction

A person authorised by Hawke's Bay Regional Council may issue a direction to the occupier under section 122 of the Biosecurity Act. The direction will specify the following matters:

1. A legal description of the land on which works or measures are to be undertaken;
2. The pest for which the works or measures are required;
3. The works or measures to be undertaken to meet the occupier's obligations;
4. The time within which the works or measures are to be undertaken;
5. Action that may be undertaken by Hawke's Bay Regional Council if the occupier fails to comply with any part of the direction;
6. The name of the authorised person issuing the direction; and
7. The contact address, telephone and facsimile numbers of the issuer.

Extension or variation of direction

Where, upon the written request of an occupier issued with a direction, an authorised person is satisfied that:

1. Reasonable steps have been taken to comply with the direction; or
2. The occupier has been prevented by reasonable cause from completing the required works or measures within the specified time;

Then the authorised person may extend the time specified for a further period or vary the requirements of the direction, as he or she considers appropriate.

Cancellation of direction

Where an authorised person is satisfied that:

1. Measures have been undertaken to adequately meet the occupier's obligations under a direction; or
2. For some other reason it is no longer appropriate to enforce the direction;

Then the authorised person will cancel the direction.

Failure to comply

HBRC does works

Where a direction has been given to an occupier requiring that occupier to carry out specific works or measures and the occupier has not complied with the requirements of the direction within the specified time, Hawke's Bay Regional Council may cause such works or measures to be carried out or action to be taken as is reasonably necessary and appropriate for achieving the purpose of the direction.

Recovery of costs incurred

On the default of an occupier to comply with a direction, Hawke's Bay Regional Council may recover the costs and expenses reasonably incurred by it in carrying out works or measures or other action as is reasonably necessary and appropriate for achieving the purpose of the direction, as a debt due from the occupier to whom the direction was given.

Offences

In the event of continued non-compliance, Hawke's Bay Regional Council may bring prosecutions against persons who do not act on directions issued by authorised persons to give effect to the Strategy. Anyone who fails to comply with these directions, without a reasonable excuse, is liable for a fine of up to \$50,000 or up to three months in jail or both. For a corporation the fine is \$100,000.

10.3 Exemption provisions

Hawke's Bay Regional Council may, under section 80D of the Biosecurity Act, exempt the requirements of any rules set under this Strategy prescribed in Part II where, upon written request from a land occupier, the Council's Principal Officer, on the advice of an authorised person, is satisfied that:

- (a) The requirement has been substantially complied with and that further compliance is unnecessary; or
- (b) The action taken or provision made in respect of the matter to which the requirement relates is as effective or more effective than actual compliance with the requirement; or
- (c) The prescribed requirements are clearly unreasonable or inappropriate in the particular case; or
- (d) Events have occurred that makes the prescribed requirements unnecessary or inappropriate in the particular case;

and that the granting of the exemption will not significantly prejudice the attainment of the objectives of this Strategy.

On receipt of any written request, Hawke's Bay Regional Council will advise the land occupier within 10 working days of its decision of whether or not to waive the occupier's obligations. Any waiver may be subject to conditions set for the purpose of ensuring that:

1. Measures are taken to minimise any adverse effects of the pest; or
2. Any beneficial effects of the pest are safeguarded.

A written request for a waiver serves as a stay on the occupier's obligations, until the occupier is notified of Hawke's Bay Regional Council's decision.

The number and nature of exemptions granted will be recorded by Hawke's Bay Regional Council in a register, and the register will be available for public inspection during the normal office hours.

11 Funding of the Pest Management Strategy

11.1 Cost benefit analysis of Proposed Pest Management Strategy

A Regional Council may notify, a proposal for a pest management strategy only if it is of the opinion that:

1. The benefits of having a pest management strategy in relation to each pest outweigh the costs; and
2. The net benefits of regional intervention exceed the net benefits of individual intervention.

Each pest must also be capable of causing at some time a serious adverse and unintended effect on:

- (a) The economic wellbeing of the region; or
- (b) The ecological values or biological diversity; or
- (c) Soil resources or water quality; or
- (d) Human health or the enjoyment of recreational values; or
- (e) The relationship of Maori with their ancestral lands, water, sites, waahi tapu, and taonga.

At a regional level the direct benefits of increased pastoral production accrue directly to the farming community, but the downstream benefits associated with increased activity in other industries and increased regional income accrue to the wider community. It is estimated that the total regional increase in output associated with the PCA programme is of the order of \$2M per annum at 2005 prices, approximately 40% of that or almost \$800,00, and a similar percentage of the total value added as a result of the programme accrues beyond the farm gate. The farming community also receives a direct economic benefit from the reduced risk of bovine Tuberculosis that sustained low possum numbers brings. As similar proportion of any reduction in output as a result of an outbreak of Bovine tuberculosis would also be incurred by other industries and consumers, and the biodiversity benefits of the scheme are shared by all of the Hawke's Bay (*reference: Lincoln Agribusiness and Research Unit 2005*).

11.2 Pest Management Strategy costs

There are two types of cost associated with the pest management strategy. They are:

1. **Direct costs of pest control** - As set out in Part II of this Strategy, occupiers will generally be required to control pests on their land, and will bear some or all of the costs of this control.

For all the Total Control (Occupier responsibility) plant pests, an incentive scheme is available. This provides a land occupier with up to 50% of the cost of control, up to a maximum \$3,000.

A subsidy scheme is also available for the control of rabbits and the site-specific control pests. Subsidised bait is also available for the control of possums.

2. **Pest Management Strategy costs** - Costs incurred by Hawke's Bay Regional Council to implement this Strategy include administration, monitoring, inspections, financial incentives, cost recovery and service delivery.

The total estimated costs of implementing this Strategy are set out in Table 6. Estimates of the funding for plant pest and animal pest control are then provided separately below.

Table 6: Summary of estimated total pest costs.

Activity	Annual cost*
Animal pest programme	\$1743570
Plant pest programme	\$732,645
Total	\$2,476,215

* *Note: The summary of Regional Pest Management Strategy costs is indicative only. It may be changed through Council's Annual Planning or LTP processes. The costs set out are estimated costs of the programme that to be included into HBRC LTP 2012-22 for the 2012/13 financial year..*

* *Note: All costs and rates set out in this section do not include GST (Goods and Services Tax)*

In addition to the activities set out in Table 6, Hawke's Bay Regional Council may arrange other pest control services on a user-pays basis in response to requests. However, any such services fall outside the scope of this Strategy.

11.3 Funding rationale

The Biosecurity Act states that regional pest management strategies can be funded by a variety of means, including rates, direct charges and contributions. In determining how the costs of this Strategy are to be funded, section 77 of the Biosecurity Act requires a strategy to specify:

- 1. Beneficiaries** -The extent to which the beneficiaries of a strategy are identifiable.
- 2. Exacerbators** -The extent (if any) to which any persons by their activities or inaction contribute to the creation, continuance, or exacerbation of the problems proposed to be resolved by a strategy.

In practice most potential funders are both beneficiaries and exacerbators, making the distinction between the two rather arbitrary. Furthermore, it is considered appropriate to place more emphasis on who benefits from pest control, as present exacerbators could argue that they did not cause the original problem - the pest was already established.

11.4 Plant pest costs

Table 7 provides an estimate of the cost of conducting plant pest control under this Strategy

Table 7: Summary of plant pest costs per year over the life of this strategy.

Activity	Annual cost*
Inspections and service delivery	\$649,845
Incentive scheme	\$50,000
Biological control research	\$25,000
Rates collection	\$7,800
Total	\$732,645

* *Note: Provision is made each year for an increase in cost of 3.5% to provide for increased costs in providing this service . The actual budget in any one year may be changed through Council's Annual Planning or LTP processes.*

Table 8 categorises the plant pests into three groups for the purposes of identifying beneficiaries and exacerbators for the plant pest programme.

The three groups are:

- Rural plant pest. This group of plants is predominantly a problem in rural areas. They are all capable of causing a significant economic impact on the region.
- Plant pest of small holdings (<4.0479ha.). These plants are mainly found in urban and low density urban fringe areas and may have effects on human health.
- Plant pests that affect biological diversity. These plants are predominantly a problem on land high in ecological values. They are all capable of causing significant adverse effects on the region's biological diversity.

The grouping of plant pests is as follows:

Rural plant pests

African Feather Grass, Apple of Sodom, Australian sedge, Chilean needle grass, Cotton thistle, Nassella tussock, Saffron thistle, Spiny emex, White edged nightshade, Yellow water lily, Bathurst bur, Blackberry, Goats rue, Gorse, Nodding thistle, Ragwort, and Variegated thistle.

<4 ha plant pests

Privet and Woolly nightshade.

Biodiversity plant pests

Japanese honeysuckle, Old man's beard, and Pinus contorta.

Table 8: Funding rationale - identification of beneficiaries and exacerbators.

		Service Delivery	Monitoring & surveillance	Incentive	Biological control
Rural	Beneficiaries	Pastoral farmers and horticulturalists.	Conservation land occupiers, and rural occupiers	Conservation land occupiers, and rural occupiers	Pastoral farmers and horticulturalists.
	Exacerbators	Crown land occupiers, rural occupiers	Crown land occupiers		Pesticide users
< 4 hectares	Beneficiaries	Urban occupiers	Urban occupiers	Regional community	Urban occupiers
	Exacerbators	Urban occupiers			Pesticide users
Biodiversity	Beneficiaries	Regional community	Regional community	Regional community	Regional community
	Exacerbators	Crown land occupiers, land occupiers with indigenous vegetation.	Crown land occupiers		Pesticide users

As noted in Table 8, the overall budget required for plant pest management under this Strategy is budgeted at \$707,870 for the 2011/12 financial year. In deciding on the funding sources and mechanisms, it is important for Hawke's Bay Regional Council to consider not only the fairness of the system, but also its efficiency. This is to ensure that the costs of collecting the funds do not amount to a significant portion of this overall budget.

Rateable land occupiers

In terms of rateable land, three main categories of beneficiaries and exacerbators can be identified from Table 8:

Rural land occupiers - comprising productive rural properties, excluding:

- Properties that have a land area of no more than 4 hectares; and
- Properties that have a land area of more than 200 ha, of which more than 90% is covered in ungrazed indigenous vegetation.

This category covers a total area of 1,001,400 hectares in the region. This category is considered to adequately distinguish between who is a rural occupier and who is not, while excluding very small properties for which the costs of levying rates outweigh the benefits obtained from the extra revenue, and very large properties of unproductive land. Large properties of unproductive land are excluded because plant pest management on these properties principally benefits the environment (and therefore everyone in the region), as opposed to directly benefiting the property owners.

Small block land occupiers – Comprising all the properties less than 4.0479 hectares, including the approximately 45,000 urban properties in the region.

Regional community - covering every rateable property in the region.

The estimated relative benefit accruing from implementation of this Strategy to these three categories is shown below in Table 9.

Table 9: Relative benefit accruing to rateable land occupiers from the strategy

Activity	Annual cost	Rural land occupiers	<4 ha occupiers	Regional community
Inspections, service delivery	\$649,845	54%	27%	19%
Incentive scheme	\$50,000	80%	20%	
Biological control	\$25,000	90%	10%	
Rate collection	\$7,800	100%		
Total relative benefit	\$732,645	59%	25%	16%

Cost allocation & rating provisions

Having determined the relative benefit that accrues to each of the occupier classes for this Strategy, the cost allocations can be derived, as shown in Table 10.

Table 10: Funding splits of strategy

Activity	Annual cost	Rural land occupiers	<4 ha occupiers	Regional community
Inspections, service delivery	649,845	350,915	175,458	123,472
Incentive scheme	\$50,000	40,000	10,000	
Biological control	\$25,000	22,500	2,500	
Rate collection	\$7,800	7800		
Total	\$732,645	421,215	187,958	123,472

The funding mechanisms will be as follows:

1. **TARGETED RATE**

The funding from rural land occupiers will be by a targeted rate made and levied on the basis of land area, under section 16 of the Local Government (Rating) Act 2002. The rate will be made on a uniform basis, as set out below.

CATEGORY A - RURAL LAND OCCUPIERS

Property definition:

The parts of the region comprising properties that:

- Have a land area of 4.0479 hectares or more; and
- Where the land area is more than 200 hectares, and less than 10% of the area is covered in ungrazed indigenous vegetation.

Rate:

\$0.365/hectare plus GST, or as adjusted through the LTP or Annual Plan process.

CATEGORY B - EXEMPTIONS

Property definition:

The parts of the region comprising properties that:

- Have a land area of more than 200 hectares, of which more than 90% is covered in ungrazed indigenous vegetation.

Rate:

\$0.000 /hectare, or as adjusted through the LTP or Annual Plan process.

CATEGORY C-< 4 HA OCCUPIERS

Property definition:

The parts of the region comprising properties that:

- Have a land area of less than 4 hectares.

Rate:

\$0.000 per property or as adjusted through the LTP or Annual Plan process.

2. GENERAL FUNDING

The funding from the regional community will be from Council's general funds, which are made up from Uniform Annual General Charge, a General Rate, and income from HBRC's investments.

The Uniform Annual General Charge is made and levied as a fixed amount on each separately used or inhabited part of a rating unit in the region under Section 15 of the Local Government (Rating) Act 2002. Furthermore, under Section 20 of that Act, where two or more separately rateable properties are continuously occupied by the same ratepayer and used jointly as a single property, then only one UAGC will be levied, however where there are more than one dwelling on these properties, a UAGC will be levied on each dwelling.

The general rate is made and levied as a uniform rate in the dollar on the basis of equalised land value on all rateable land in the region under Section 13 of the Local Government (Rating) Act 2002.

3. CROWN LAND OCCUPIERS

The level of contribution for plant pest control from Crown land occupiers is set out in section 2.3.

11.5 Animal pest costs

The proposed costs of implementing animal pest control under this Strategy are set out in Table 11. These costs relate to implementing the suggested control methods for managing effectively all the animals considered.

Table 11: Summary of Strategy costs

	2012/13	2013/14	2014/15	2015/16	2016/17
Rabbits					
Programme delivery	60,000	62,000	63,000	65,000	66,000
Possum control areas					
Initial possum control	100,000				
Programme implementation	598,000	612,950	628,274	643,981	660,080
Compliance and incentives	608,570	726,284	744,441	763,052	782,129
Site specific pests and environmental areas					
Biodiversity and site specific pests	127,000	128,000	131,000	135,000	138,000
rook control					
programme service delivery	127,000	128,000	131,000	90,000	92,000
general advice	43,000	44,000	45,000	46,000	47,000
Research	55,000	56,000	57,000	58,000	59,000
Rate collection	25,000	25,000	25,000	25,000	25,000
TOTAL	1,743,570	1,782,234	1,824,715	1,826,033	1,869,209

* Note: Costs include an allowance for inflation of approx 2.5% /annum. Annual budgets shall be established each year, with these budgets subjected to the public consultation process through Council's Annual Plan or LTP process.

The costs set out in Table 11 do **not** include costs incurred by the region for its obligations under the Animal Health Board's National Pest Management Strategy for Bovine Tb.

In deciding on the funding sources and mechanisms for the costs of providing animal pest control, it is important for Hawke's Bay Regional Council to consider not only the fairness of the system, but also its efficiency. This is to ensure that the costs of collecting funds do not amount to a significant portion of the overall budget. Table 12 below sets out the funding rationale.

Table 12: Funding rationale - identification of beneficiaries and exacerbators.

Activity	Beneficiaries	Exacerbators
Possum Control Areas	Major beneficiaries: <ul style="list-style-type: none"> • Rural land occupiers • Crown land occupiers • Regional community, 	Major exacerbators: Land occupiers not controlling possums. Pastoral farmers and Forestry owners, and Crown land occupiers
Rabbit monitoring	Major beneficiaries: <ul style="list-style-type: none"> • Occupiers of rabbit prone areas • Adjacent land occupiers • Regional community 	Major exacerbators: Occupiers of rabbit prone areas who do not control rabbits or who provide rabbit habitat.
Rook control	Major beneficiaries: <ul style="list-style-type: none"> • Horticulturalists • Pastoral farmers • Regional community 	Major exacerbators: People who disturb rookeries, leading to new rookeries becoming established. People who have rookeries on their property.
Site-specific pests and covenanted areas	Major beneficiaries: <ul style="list-style-type: none"> • Regional community 	Major exacerbators: People who release feral goats, deer, pigs, cats, rats, ferrets or stoats.
General Advice	Major beneficiaries: <ul style="list-style-type: none"> • Individuals seeking advice • Regional community 	
Research	Major beneficiaries: <ul style="list-style-type: none"> • Occupiers of production land or land in indigenous forest. • Regional community 	

Rateable land occupiers

In terms of rateable land, the main categories of beneficiaries and exacerbators are as follows:

Production forestry - comprising properties of production forestry that either:

- Have a land area of more than 40 hectares, of which more than 75% is covered in production forestry; or
- Have more than 400 hectares of planted production forest.

At the time of writing and reviewing this Strategy, this category covered a total area of approximately 151,115 hectares in the region (or 14.2% of the land rateable under this Strategy). Production forestry is differentiated from other rural land occupiers (below), as any pest control in production forestry blocks is on a user-pays basis rather than funded by rates.

Other rural occupiers - comprising other rateable rural properties, excluding:

- Properties that have a land area of no more than 4 hectares; and
- Properties that have a land area of more than 200 hectares, of which more than 90% is covered in ungrazed indigenous vegetation.

At the time of writing and reviewing this Pest Management Strategy, this category covered a total area of 852,600 hectares in the region. This category is considered to adequately distinguish between who is a rural land occupier and who is not, while excluding very small properties for which the costs of levying rates outweigh the benefits obtained from the extra revenue, and very large properties of unproductive land.

Regional community - covering every rateable property in the region, including the specific beneficiaries and exacerbators identified in Table 12.

Large properties of unproductive land are excluded because animal pest management on these properties principally benefits the environment (and therefore everyone in the region), as opposed to directly benefiting the property owners.

The estimated costs and relative benefit from implementation of the Strategy accruing to each of these categories is shown in Table 13.

Table 13: Relative benefit accruing to rateable land occupiers from the Strategy.

	2012/13	2013/14	2014/15	2015/16	2016/17	Forestry	Targeted	General
Rabbits								
Programme delivery	60,000	62,000	63,000	65,000	66,000	10%	60%	30%
Possum control areas								
Initial possum control	100,000						70%	30%
Programme implementation	598,000	612,950	628,274	643,981	660,080	10%	60%	30%
Compliance and incentives	608,570	726,284	744,441	763,052	782,129		70%	30%
Site specific pests and environmental areas								
Biodiversity and site specific pests	127,000	128,000	131,000	135,000	138,000			100%
rook control								
programme service delivery	127,000	128,000	131,000	90,000	92,000		70%	30%
general advice	43,000	44,000	45,000	46,000	47,000			100%
Research	55,000	56,000	57,000	58,000	59,000			100%
Rate collection	25,000	25,000	25,000	25,000	25,000	15%	85%	
TOTAL	1,743,570	1,782,234	1,824,715	1,826,033	1,869,209			

* Note: The contribution from production forestry and other rural land occupiers has been split to reflect the respective land areas of each of these categories, and the level of service each category will receive from the strategy.

Cost allocation & rating provisions

The overall sources of Strategy funding are set out in Table 14.

Table 14: Overall sources of Pest Management Strategy funding.

Source	2012/13	2013/14	2014/15	2015/16	2016/17
Production forestry	69,550	71,245	72,877	74,648	76,358
Other rural property owners	1,000,949	1,024,219	1,048,823	1,043,775	1,068,788
Regional community	673,071	686,770	703,015	707,610	724,063
Total	1,743,570	1,782,234	1,824,715	1,826,033	1,869,209

The funding mechanisms will be as follows:

1. **TARGETED RATE**

The funding from production forestry and other rural occupiers will be by a targeted rate made and levied on the basis of land area, under section 16 of the Local Government (Rating) Act 2002. The expected rate will be made on a differential basis, as set out in Table 15.

Table 15: Targeted rate cents/ hectare excluding GST

	2012/13	2013/14	2014/15	2015/16	2016/17
A - Production forestry	\$0.46	0.47	0.48	0.49	0.50
B - Other rural land occupiers	\$1.19	1.22	1.25	1.24	1.27
C - Exemptions	0.00	0.00	0.00	0.00	0.00

Definitions:

Category A - Forestry

The parts of the region comprising properties of production forestry that either:

- Have a land area of more than 40 hectares, of which more than 75% is covered in production forestry; or
- Have more than 400 hectares of planted production forest.

Category B - Other rural

The parts of the region comprising properties that:

- Do not fall into Category A; and
- Have a land area of more than 4 hectares; and
- Where the land area is more than 200 hectares and less than 10% of the area is covered in ungrazed indigenous vegetation.

Category C - Exemptions

The parts of the region comprising properties that either:

- Have a land area of no more than 4 hectares; or
- Have a land area of more than 200 hectares, of which more than 90% is covered in ungrazed indigenous vegetation.

2. **GENERAL FUNDING RATES**

The funding from the regional community will be from Council's general funds, which are made up from general rates, uniform annual general charges, and income from Council's investments. The general rate is made and levied as a uniform rate in the dollar on the basis of equalised land value, on every separate rateable property in the region under section 13 of the Local Government (Rating) Act 2002. The expected general rate for animal pest control is provided in Table 16. The actual level of the general rate will be confirmed through the Annual Plan process.

Table 16: Total General Rate excluding GST

Rate category	2012/13	2013/14	2014/15	2015/16	2016/17
General rate *(\$ /\$100,000	\$33,605	\$34,408	\$35,251	\$35,146	\$36,005
Uniform annual general charge**	\$34,425	\$34,884	\$35,649	\$36,567	\$37,332

* General rate denotes a rate which will meet the public good funding needed in the proportions stated after deducting contributions from regional income and any use of accumulated operating reserves.

** The UAGC denotes uniform annual general charges which will meet the public good funding needed in the proportions stated after deducting contributions from regional income and any use of accumulated operating reserves.

There is no provision within the strategy for funding contributions from Crown Land Occupiers. Council will however, continue to work with Crown Land Occupiers to seek that they manage pests on their land, such that they do not impact on neighbouring land where pests are controlled, or they contribute to the cost of the work necessary to achieve that outcome.

11.6 General rating provisions

Any person upon inquiry, either in person at the public office of Hawke's Bay Regional Council or in writing addressed to the principal administrative officer, is entitled to be advised of the type or group of property to which a particular property is allocated.

Any ratepayer may, at any time, object to Hawke's Bay Regional Council in accordance with section 39 of the Local Government (Rating) Act 2002 against the allocation of a property to a particular type or group of property.

1. **REMISSION AND POSTPONEMENT**

Applications for remissions and postponements under d section 85 and 87 of the Local Government (Rating) Act 2002 will be considered in accordance with the normal policies of the Council.

2. **ADDITIONAL CHARGES**

Additional charges will be imposed on rates remaining unpaid as provided for under section 57 of the Local Government (Rating) Act 2002, in accordance with resolutions made from time to time by Hawke's Bay Regional Council.

3. **ADMINISTRATIVE PROBLEMS OR COSTS**

No unusual administrative problems or costs are expected in recovering the costs to any of the persons who are required to pay.

12 Coordination issues

Cross-boundary issues may occur whereby the environmental effects of one resource use are felt in another part of the environment (for example, water quality may be affected by the discharge of herbicides). Cross-boundary issues may also exist in relation to animal pests moving from one region to another, or the movement of plant pest seeds from one region to another.

Integrated management aims to minimise the effects of cross-boundary issues and give effect to the objectives of this Strategy. Hawke's Bay Regional Council will use the following procedures in relation to integrated management and cross-boundary issues:

1. Having regard to any national or regional pest management strategy, any regulation, or any regional policy statement or regional plan prepared under the Resource Management Act 1991;
2. Liaising with the Ministry of Agriculture and Forestry over pest management issues which are best dealt with or coordinated at a national level;
3. Liaising with Crown land occupiers, in particular the Department of Conservation, with respect to coordination of pest management programmes;
4. Liaising with other regional councils on cross-boundary issues pertaining to pest management, and on matters, which are relevant to more than one region;
5. Encouraging other authorities to adopt policies and practices, which will avoid, remedy or mitigate adverse effects associated with pests, and coordinating education initiatives with other agencies;
6. Making submissions on documents prepared by other authorities; and
7. Ensuring that any other regional pest management strategies proposed by Hawke's Bay Regional Council is not inconsistent with this Strategy.

Coordination with other pest management strategies will be achieved through a process based on discussion between Hawke's Bay Regional Council and other persons or organisations proposing strategies, and the preparation of submissions as appropriate.

13 Monitoring and Review of the Strategy

13.1 Monitoring progress

Hawke's Bay Regional Council will monitor progress on implementing this Strategy to ensure that the objectives can be achieved. This will be done by:

1. Producing maps of properties showing plant pest infestation levels and the extent of the infestation;
2. Establishing and maintaining a complaints and enquiries register;
3. Monitoring the extent and effect of pest infestations; and
4. Undertaking inspections to determine whether occupiers are meeting their obligations under this Strategy, and recording the overall level of compliance.

13.2 Performance of the Management Agency

Under section 85 of the Biosecurity Act, Hawke's Bay Regional Council, as the management agency, must prepare an annual operational plan and an annual report on the operational plan and its implementation. These requirements will be incorporated in Hawke's Bay Regional Council's Annual Plans and Reports prepared under sections 95 and 98 of the Local Government Act 2002.

Assessment of Hawke's Bay Regional Council's performance, as the management agency, will therefore be reported in the Council's Annual Reports. These reports will document the performance of Hawke's Bay Regional Council in achieving the objectives of this Strategy, including whether:

- The required pest management programmes, region-wide surveillance and control have been undertaken;
- All nurseries and retail outlets have been inspected;
- A complaints, enquiries and plant pest reporting register has been maintained, and follow up action has been taken as appropriate;
- Education initiatives and the biological control research programme have been undertaken as set out in the operational plan;
- Hawke's Bay Regional Council's commitments in terms of service delivery, as set out in the operational plan, have been undertaken; and
- The Strategy was implemented within budget.

13.3 Review of the Strategy

The Biosecurity Act requires that this Strategy be reviewed no later than five years from the date upon which it is approved by Hawke's Bay Regional Council, if the Council wishes to continue to manage the pests that are the subject of this Strategy beyond five years. This Strategy will be reviewed in the following circumstances:

1. A review will be started before 30 June 2016 if Hawke's Bay Regional Council has grounds to believe that this Strategy is failing to achieve its purpose or relevant circumstances have changed to a significant extent since this Strategy commenced.
2. As required by the Biosecurity Act, a full review (within the meaning of section 88 of the Biosecurity Act) will be commenced before 30 June 2016. This will comprise a review of the entire Strategy.

The procedures to be used to review this Strategy will be determined when the review is instigated, but will include:

1. An assessment of the efficiency and effectiveness of the tactics and methods, and performance of Hawke's Bay Regional Council as the management agency, for achieving the objectives of this Strategy;
2. An assessment of the impact of the designated plant pests on the region and any other harmful plant that should be considered for inclusion in a strategy;
3. Formal and informal liaison with public authorities and key interest groups regarding the effectiveness of this Strategy; and
4. Analysis and incorporation, as appropriate, of public submissions regarding proposed changes to this Strategy, or re-notification of this Strategy, as required by section 78 of the Biosecurity Act.

It should be noted that, in addition to a Council-initiated review, any person may, by written notice to Hawke's Bay Regional Council, ask the Council to notify a proposal for a regional pest management strategy pursuant to section 74 of the Biosecurity Act.

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