

## 14.1 Introduction

Pests are causing significant adverse impacts on many aspects of our regional environment, in particular our natural heritage resources, agricultural resources and human health and enjoyment.

The Auckland Region has a diversity of plant and animal life including birds. However, not all wildlife is beneficial. Trees and forests that were once home to indigenous birds and invertebrates, including insects, have been cleared. Where remnants remain, introduced animals such as mustelids, ship rats and feral cats prey on birds or their eggs, and compete for food. Other introduced animals such as goats and possums graze or browse on indigenous plants which cannot sustain such activity. Some of these 'pests', such as possums, can also spread disease to domestic animals. In New Zealand, with over 600 rare animals and plants including 11% of the world's rare birds on 0.2% of the world's land area, the impact of pests is a significant issue.

A number of plants, mainly but not exclusively introduced species, have also proven to be pests. These plants successfully compete with more desirable species, endangering their survival and reducing the diversity that ensures successful adaptation to change. They also degrade pasture and crops. Colonisation by weed species can also have an adverse visual impact. Some plant species are the subject of public complaints on health grounds.

*Over 600 exotic plant species have naturalised in the Auckland Region over the last 150 years.*

The ARC is currently responsible for the control of noxious plants and agricultural pests under the transitional provisions of the Noxious Plants Act 1978, and the Agricultural Pest Destruction Act 1967. The Biosecurity Act 1993 modifies these responsibilities. The Biosecurity Act promotes a different approach to pest management and requires that individual pest management strategies be prepared for each pest. The pest is to be defined by the individual pest management strategies and can include any organism excluding humans. In line with the biosecurity legislation, the collective term "pest" will be used to describe both animal and plant pests in this document. A pest can generally be described as an organism that is capable of causing at

some time a serious adverse and unintended effect on people and/or the natural environment.

The approach in this chapter is to highlight pest management as a significant resource management issue. The Biosecurity Act will be the primary delivery mechanism for achieving the stated objective, policies and methods of this chapter. Regional pest management strategies will be prepared that identify plant and animal pests and propose control programmes. Other mechanisms may also be used to achieve the stated objective. Whilst it is accepted that the outcomes from this work are necessary to help achieve the objectives of other chapters, in particular the heritage chapter, it is considered appropriate to have such a significant issue separately identified and the policy direction outlined.

## 14.2 Issues

### 14.2.1 Pests cause damage in areas of high conservation value

Damage to areas of high conservation value is caused by a range of pests, including possums which selectively browse and ultimately kill vulnerable species. The damage caused by possums on indigenous forests and coastal pohutukawa is particularly noticeable along parts of the east coast of Rodney district and in the southern part of the Region from Clevedon to Orere Point. In the Hauraki Gulf Islands where there are no (e.g. no possums on Great Barrier) or few pests, it is important that the pest free status is retained. Other pests (both plant and animal) can have an impact on natural values. For example, climbing asparagus (*Asparagus scandens*) and wild ginger (*Hedychium spp*) can adversely affect indigenous forest by smothering plants, inhibiting growth and modifying habitat permanently. The adverse effects of animal pests has already been noted in the introduction. It is because of this damage that the concept of pest free areas and maintenance of this status becomes so important.

In addition to terrestrial pests, exotic marine organisms are potential pests which could harm natural ecosystems and also cause damage to the seafood industry.

### 14.2.2 Pests adversely affect agricultural resources

Pests have the potential to cause significant damage to agricultural resources such as forestry, horticulture, soil conservation plantings and pasture. In particular, possums, rabbits and hares can damage these resources whilst some species of plant, e.g., nodding thistle (*Carduus nutans*), nassella tussock (*Nassella trichotoma*) and Australian sedge (*Carex longibrachiata*) displace grass and reduce the amount of available pasture. Other plants such as water hyacinth (*Eichhornia crassipes*) and Senegal tea (*Gymnocoronis spilanthoides*) can restrict water flows and cause flooding problems.

Animal pests (primarily possums) but potentially cats, mustelids and pigs, can also be vectors for bovine tuberculosis (TB). The presence of TB in New Zealand could threaten the nation's access to export markets for dairy and meat products. It should be noted that there is a national pest management strategy for the management of bovine TB.

### 14.2.3 Pests have the potential to affect human health and wellbeing

Plants such as green cestrum (*Cestrum parqui*) and woolly nightshade (*Solanum mauritianum*) are toxic to humans and animals. There is also significant public concern over the possible relationship between privet (*Ligustrum spp*) and asthma. Animal pests such as possums may spread giardia and leptospirosis.

Wasps, while not a pest under current legislation, can affect natural values and human activities.

## 14.3 Objective

*To minimise the adverse effects of pests on the environment.*

## 14.4 Policies, Methods and Reasons

*The following policies and methods give effect to Objective 14.3.*

### 14.4.1 Policies

1. *Pests will be managed to achieve the following:*
  - (i) *minimise the impact of pests on areas of high Regional or local, natural, recreational, scenic, social or historic value;*  
*See Chapter 6 – Heritage, and Appendix B.*
  - (ii) *minimise the impact of pests on agricultural resources;*

- (iii) *minimise the impact of pests on the health and safety of people and communities;*
- (iv) *achieve and maintain the pest free status of discrete geographical areas, in particular island habitats.*

2. *Potential pests shall be identified and managed to avoid damage to the environment.*
3. *Multi-species pest management strategies shall be prepared where an integrated approach would be most efficient and cost effective.*
4. *In carrying out its functions with respect to pest management, the ARC shall have particular regard to kaitiakitanga and shall recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.*  
*(Refer also to Chapter 3 – Matters of Significance to Iwi)*
5. *The introduction of undesirable marine organisms should be avoided.*

### 14.4.2 Methods

1. *The ARC will prepare and implement pest management strategies using techniques such as pest destruction programmes, regulation and education.*
2. *The ARC will determine the priority of pest management strategies according to the criteria set down in the Biosecurity Act and their degree of feasibility, effectiveness, and affordability.*
3. *The ARC will consult with the Regional community, including constituent TAs, on priorities for the preparation of pest management strategies.*
4. *The ARC will place priority on strategies aimed at maintaining pest free status or eradicating pests of low incidence subject to the criteria stated in Method 14.4.2 -2 above.*
5. *Pest Management Officers will be required to carry out surveillance and reporting on potential pests establishing in the Region. Where a potential pest is identified, appropriate action will be taken under the Biosecurity Act. This may include preparation of a pest management strategy.*
6. *The ARC will complete a regional database identifying areas of significant conservation value*

*and their vulnerability to adverse impacts from pests, acknowledging the wide range of pests that are causing damage.*

7. *The ARC will continue with an education programme to increase public awareness of the problems caused by pests and encourage self-help in relation to pest management.*
8. *The ARC will lobby central government to undertake the imposition of effective controls to prevent the introduction of undesirable marine organisms via ballast water discharge within New Zealand waters.*
9. *The ARC will advocate to central government that appropriate funding should be allocated to research into the most effective and efficient methods of managing pests.*
10. *The ARC will lobby central government for better controls on imported plants with potential to cause impacts on natural values.*

#### 14.4.3 Reasons

The RM Act requires that regional councils address significant resource management issues affecting the natural and physical resources of the region in the RPS, as stated in section 62(a) of the RM Act.

The purpose of the RPS is stated as:

*“... providing an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the region.” [RM Act, section 59]*

The ARC has the function of:

*“the preparation of objectives and policies in relation to any actual or potential effects of the use, development, or protection of land which are of regional significance.” [RM Act, section 30 (1)(b)]*

The RM Act also requires the RPS to have regard to management plans and strategies prepared under other acts where they have a bearing on resource management issues, as stated in the RM Act section 61 (2)(a)(i).

This RPS has identified significant resources which can be adversely affected by pests including the remaining natural heritage resources identified in Chapter 6 –

Heritage. In carrying out its responsibilities to manage these resources, pest management is recognised as a significant issue and the above objective, policies and methods have been developed to set out the policy direction which the ARC intends to follow. The Biosecurity Act will be the primary mechanism for achieving the stated objectives.

The Biosecurity Act requires that pest management strategies be prepared for each pest. The strategies can be either national or regional. It is the strategy that identifies the pest and the proposed control programme along with the agency which will be responsible for the strategy and how it will be funded.

The ARC will take a proactive role in developing strategies and will consult with the Regional community, including constituent TAs, on priorities.

Work has already been started in terms of the possum control programme with the preparation of a Regional database to identify the areas of high conservation value which are at the greatest risk from possum attack. In order to be cost-effective, pest control must be targeted at those areas where there is an unacceptable risk from the impact of pests on the conservation values identified. Priorities for control can, therefore, be set, justified and sustained using the ranking system set out in the database. The methodology for this ranking system has already been established. DoC also uses a similar methodology to prioritise possum control work on the conservation estate at a national level. The ARC will work closely with the Auckland conservancy to ensure a co-ordinated and efficient Regional strategy.

Whilst the database at present only considers the impacts of possums, it can be expanded to consider the impacts of a range of pests to achieve integrated management of pests.

It has been recognised that some pests already established in the Region will never be eradicated and that potential new pests are arriving all the time. It is therefore considered important to protect areas which may be free of a particular pest, e.g., Great Barrier Island and Waiheke Island have no possum populations. It is also considered important to focus on pests which can realistically be eradicated, i.e., low incidence pests and also on proactive surveillance to prevent new pests establishing.

### 14.5 Environmental Results Anticipated

- (a) Reduction in the damage from possums in areas of high conservation value.
- (b) Control of the spread of plants that are identified as pests, and the eradication of those pests where it is considered:
  - desirable
  - feasible
  - affordable.
- (c) Achieve and maintain pest free status of discrete geographical areas, in particular island habitats.
- (d) Avoid the introduction of undesirable marine organisms via ballast water discharge.

### 14.6 Monitoring

- (i) The work in conservation areas will be monitored by using pre- and post-evaluation as a measure of the control efficiency, and long-term monitoring of indicator species to monitor overall effectiveness.
- (ii) A register of complaints/enquires will be kept as an indicator of the public concern relating to pests.
- (iii) Plant pest infestation levels will be recorded. Trends in infestation levels and the number of properties complying with control requirements will highlight the effectiveness of the control strategies.
- (iv) Pest free status of areas will be monitored.