

4.2. PEST MANAGEMENT STRATEGY FOR FERAL DEER



Description of the Pest

Four species of feral deer are found in Northland, Red deer (*Cervus elaphus*), Fallow deer (*Cervus dama*), Sika deer (*Cervus nippon*) and Wapiti (*Cervus canadensis*).

The adult male Red deer (stag) stands about 116cm at the shoulder, the female is smaller at about 100cm and is of lighter build. A mature stag weighs about 130kg. Colour changes from a glossy reddish brown in summer to a drab grey-brown in winter. Both male and female have a straw-coloured rump patch and the underside of the belly is creamy. Only the stag has antlers which are replaced each year.

The Fallow deer is much smaller than the Red deer, and seldom gets bigger than 90cm at the shoulder. Colour variation in animals of both sexes is wide, between white and almost black. Summer skins are light-brown or fawn with large white spots over the back and upper sides and haunches. Most underparts are white or cream. The antlers of the stags are palmated or flattened towards the ends. Females do not have antlers.

The Sika deer is smaller and lighter in build than Red deer, although it is difficult to distinguish between the two species. The summer coat of the Sika is a deep rich red brown covered with white spots. This goes brown-grey and the spots almost disappear over winter. The head of the Sika is shorter than the Red deer and has neater features. The ears are shorter and bat-like. Only the stags have antlers, mostly with four points on each side.

The Wapiti is much larger than the Red deer and can weigh about 400kg. In summer the head and neck of the male Wapiti is a dark chocolate colour, the back and sides are lighter brownish-grey except for a creamy patch between the hind legs. The overall colour changes to a lighter bleached colour over winter. The females are less strikingly coloured and are a more uniform fawny-grey. The calves are spotted at birth. The male Wapiti has antlers noted for their size (up to 1.5 metres in length). The female has no antlers.

Distribution of the Pest

Feral deer are not widespread in Northland. The areas where deer have been found are where they have been released or have escaped from adjacent farms. The remaining sika deer population is in the Russell Forest and surrounding private bush.

Deer, including those that are farmed, are deemed to be wild animals under the Wild Animal Control Act 1977. The Minister (Department) of Conservation administers the Act. The Act prohibits deer farming in specified areas of the Region which are adjacent to significant native forests. It also requires that consent be obtained for deer farming in other parts of the Region and specifies requirements for fencing and other matters.

Problems Caused

Feral deer, like goats, adversely affect indigenous ecosystems through grazing and can reduce production by damaging crops and exotic forests. They have also been implicated in the transmission of bovine Tb. To date there has been no positive identification of Tb in feral deer within the Northland Region.

Parties Affected

All landowners are affected, particularly those with land adjoining indigenous or exotic forests, are affected as populations of feral deer are a potential vector in the spread of Tb, particularly if deer are imported into Northland and illegally released. People who use and enjoy forest areas are also affected as are those who live on or use the floodplains. All residents and visitors to the Region, as users of the transport and communication infrastructure are affected when protection forest is damaged, flooding and siltation increases and communications are damaged.

Impact Evaluation

<u>Impact</u>	<u>Current</u>	<u>Potential</u>
Cultural	Low	High
Ecological	Low	High
Human Health	Low	Low
Soil & Water	Low	Medium
Production	-	High
Public Infrastructure	-	Medium
Public Safety	-	-
Recreation	Low	Low
Trade (International)	-	Medium
Overall Regional	Low	High

Regional Effects

Feral deer populations in the Region are small, therefore recorded environmental damage is low. The health problems associated with feral deer in Northland are unknown at present due to the fact that the Region does not have any recorded Tb affected animals. There is however potential for Tb to spread in feral populations from animals illegally transported into the Region. No figures exist for loss of production due to feral deer in Northland, however production loss due to Tb would be significant. Increased feral deer browsing will place endangered plant species, and the bush in total, under serious threat, particularly when in combination with high possum populations.

Need to Intervene

The effects of the pest are not such as to require major Regional intervention. However, due to low numbers and the potential risks involved, it is seen as cost effective to intervene as soon as possible.

Goal (Long Term)

- To eradicate feral deer from Northland.

Objectives (Five Year)

- To maintain and where necessary increase, public awareness of the problems caused by the pest and associated control techniques.
- To destroy all feral deer when located in Northland.

Tactics and Technical Methods to be Used

Education	Advice to landowners and other interested parties, brochures and publicity campaigns
Regulation	Rules on branding and liberation and capture/destruction of deer. Support enforcement of controls in Wild Animal Control Act. Rule 6.4.1.1 Requirement to Identify Farmed Deer. Rule 6.4.1.2 Prohibition on Transport of Unmarked Deer. Rule 6.4.1.3 Prohibition on Liberation of Deer and Goats. Rule 6.4.1.5 Farming of Deer Not to Cause Erosion. Rule 6.4.1.11 Control of Pest Animal Populations by Land Occupiers in Community Pest Control Areas Failure to comply with these rules creates an offence under section 154 (r) of the Biosecurity Act.
Services	Wild deer are eradicated under the Northland Wild Deer Eradication programme. When reported, sightings will be investigated and control implemented by a contract deer control team managed by the Department of Conservation. At least annual inspection of deer fences by Department of Conservation contractors.

Tactics and Technical Methods Rejected

Economic	Bounties (not effective). Free or subsidised ammunition and poison (not effective).
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Effects of the Strategy

Beneficial	Protection of indigenous fauna. Enhanced returns from primary industries and reduced risk of Tb being introduced.
Detrimental	Loss of recreational opportunities.

Cost of Strategy

The annual cost to the Regional Council is estimated at \$25,000. The Department of Conservation, which in addition to managing the deer eradication programme, also faces costs in licensing and monitoring deer farms and enforcing the provisions of the Wild Animal Control Act 1977, spends in the order of \$75,000 each year. The Animal Health Board, in recognition of the Tb threat posed by a feral population, contributes \$80,000 per annum towards the joint Regional Council – Department of Conservation – Animal Health Board wild deer eradication programme.

Funding

The Regional Council's share of the Strategy is funded from a Land Management Rate as a feral deer population can affect all landowners as well as people with an interest in indigenous forests. The Department of Conservation work will continue to be funded by central government and the Animal Health Board by way of a levy on stock slaughtered.

Management Agency

The Department of Conservation is responsible for the management of the Strategy under the Wild Animal Control Act. In-house expertise and the resources of the Regional Council, the AHB and Department are seen as necessary components of a successful Strategy.

Relationship of Strategy to Other Pest Management Strategies

The Auckland Regional Council does have a feral deer Strategy but discussions are being held with the view of introducing a similar deer eradication programme to that in Northland. The ARC will carry out control in areas of high conservation value and in a 1km buffer zone around these areas

Monitoring and Reporting

The Department of Conservation will report on activities carried out in its Annual Deer Report. Reports of deer sighted, captured and or destroyed will be recorded and monitored. Should there be a significant increase in feral deer numbers or damage to indigenous forests, then the Strategy will be reviewed.

Term of Strategy **5 years**

Rules

6.4.1.1 Requirement to Brand Mark or Similarly Identify All Farmed Deer and Goats

No person shall keep deer or goats on a property unless they are branded or marked with some clearly visible identification.

6.4.1.2 Prohibition on Transport of Unbranded Deer into Northland

No person shall transport any unbranded or unmarked deer into Northland from any other part of New Zealand.

6.4.1.3 Prohibition on Liberation of Deer and Goats from Properties

No person shall liberate release or allow to escape from captivity any deer or goats held on any property and shall report any escapes to the Regional Council within 24 hours. (Reiterates in part, section II Wild Animal Control Act 1977).

6.4.1.5 Keeping of Deer and Goats Must Not Cause Accelerated Soil Erosion

No person shall keep deer or goats in a manner which is likely to cause injury or damage to any Regionally significant indigenous flora or fauna or is likely to lead to soil erosion, contamination of any water body by sediment or result in flooding.

6.4.1.7 Capture and Destruction of Deer and Goats and Recovery of Costs Incurred By Management Agency

When the owner of escaped deer or goats advises the Council of their escape a management agency, authorised person or accredited person may, having given the owner 7 days to recover the animals, capture and/or destroy any deer or goats found not contained by fencing and may

recover the cost of such work from the owners of the animals, or the person(s) responsible for their release. (Parallels powers of Director-General of Conservation pursuant to section 12c Wild Animal Control Act 1977).

6.4.1.11 Control of Pest Animal Populations by Land Occupiers in Community Pest Control Areas

Where a management agency has undertaken initial control work on a property and/or supplied resources to reduce pest animal population densities to a level agreed to in a management plan for the area, the occupier of the property shall maintain the pest animals population densities to those agreed to in the management plan.