4.5. PEST ANIMAL STRATEGY FOR FERAL RABBIT AND HARE

Description of the Pest
Rabbits (*Oryctolaques cuniculus*) are about the size of a small domestic cat with long ears and small tail. Both sexes are of similar appearance. The colour is mainly buff sprinkled with black, a reddish neck, white underparts and black fur on the upper side of the tail with white below. There is a wide variation in the colour of body fur from white to a light sandy colour to black, and mixtures of colours.

The hare (*Lepus europaeus occidentalis*) is easily distinguished from its close relative, the rabbit, by its much greater size, its long black tipped ears and its larger muscular hindquarters. The hare is mostly brown in colour, with a lighter brown belly. The tail is black on top with a white underside. The hare's front legs are about half the size of its hind legs and appear undeveloped in comparison. The back feet are non-padded which results in a distinctive spoor unique to the hare.

Hares tend to be solitary animals and live above ground, whereas rabbits live in large groups and usually nest underground.

Distribution of the Pest
Rabbits and hares are widespread throughout Northland at varying levels of infestation. In the case of rabbits, soil type and land management have a significant influence on population levels, with the greatest densities on hard-grazed lighter and drier sandy and volcanic soils.

Problems Caused
Rabbits compete directly with stock for grazing and can sour some pasture by eating out the most palatable species of grass. When in very high numbers their burrowing can cause erosion on lighter soils. They eat new plantings of trees and crops, causing losses to varying degrees in forestry, horticulture, shelterbelt and amenity plantings. They are also a nuisance in residential gardens and damage golf courses and other turfed recreational areas.

Hares also cause damage to new tree plantings and horticultural crops, amenity plantings and shelterbelts by nipping out the tops of the seedlings but not actually eating them. Hare numbers are becoming high enough to affect agricultural production in some areas.

Parties Affected
The main parties affected are land occupiers, particularly farmers, owners of exotic forests and horticulturalists.

Impact Evaluation

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

Regional Effects
Rabbits and hares are not in sufficiently high numbers in most of Northland to cause any serious environmental damage, but are a serious threat to some sand dune plant communities in some coastal areas. Although eight adult rabbits eat the equivalent of one sheep, their numbers in most areas are not high enough to cause a measurable loss of production except on coastal sands where rabbit numbers can get high enough to eat all available pasture and to cause serious sand drift erosion. Losses of new tree plantings vary but for pine trees can be as high as 30%.

Need to Intervene
Because rabbits and hares are very mobile animals and roam across property boundaries, a Strategy is required to ensure co-ordination of measures and work programmes to control them in areas with high infestations. If left unchecked, production losses from pasture, crops and new forest plantings in infested areas can be significant.

Goal (Long Term)
- To reduce rabbit and hare numbers in all areas to levels that are low enough that they no longer adversely affect primary production and conservation values and they can be maintained by individual landowners.

Objectives (Five Year)
- As with all of the Regional Pest Management Strategies, when formulating programmes to control rabbits and hares, the Council will consider the advantages of controlling other pest animals as well under an integrated pest management scheme.
- To achieve at least a 90% kill in all severely infested areas, that is those which score more than 4 on the McLean Scale (See Appendix 1), and to prevent re-infestation of the treated areas.
- To successfully educate landowners on control techniques and farming practices which keep rabbit and hare numbers at manageable levels.

Tactics and Technical Methods to be Used
Education: Advice to landowners and other interested parties.
Brochures and publicity campaigns.
Community meetings and field days.

Services Council-managed control programmes in severely infested areas, that is areas where the population density is over 4 on the McLean Scale.
Methods used are night shooting, poisoning with registered pesticides, fumigation and repellents.
Biological control agents will be used as and when the agents are approved for use.

Regulation Provide for rules requiring landholders to maintain treated areas and rules to prevent transport and liberation of live animals (including domestic and commercial rabbits).

Rule 6.4.1.11 Control of Rabbits by Land Occupiers.
Rule 6.4.1.12 Prohibition on Liberation of Rabbits and Hares.
Rule 6.4.1.13 Prohibition on Transport of Live Rabbits and Hares.
Rule 6.4.1.16 Prohibition on Distribution and Sale of Pest Animals.
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 1993.

Tactics and Technical Methods Rejected

Economic Bounties (not effective as too difficult to control where animals have been killed.)
Free ammunition (no control over where and on what it is used.)

Regulation Rules requiring control by land occupiers (difficult to enforce).

Services Council to be responsible for all eradication (inefficient use of resources when pests at low numbers over too large an area.)

Effects of the Strategy

Beneficial Enhanced production from pasture, forestry and crops.
The protection of erodible land.
The enhancement of conservation values.

Detrimental Minor risks to non-target species during control operations.
Loss of opportunities for recreational and commercial hunters.

Cost Of Strategy

The annual cost of the Strategy to the Regional Council is estimated at $60,000 - rabbits $50,000 and hares $10,000

Funding

The Strategy is funded by way of a Land Management Rate struck on a Land value basis on all rateable land in Northland. Rabbits and hares, being widespread throughout Northland, are pests to the Region as a whole when in large numbers.

Any work requested to be done on low density infested properties, that is those with a score of less than 4 on the McLean Scale, will be done on a cost-recovery basis.

Management Agency

The Northland Regional Council is responsible for management of the Strategy. This is seen as appropriate because of the need for a Regionally co-ordinated approach, restriction on poisons, and use of expertise and resources in the Regional Council.

Relationship of Strategy to Other Pest Management Strategies
The Strategy does not conflict with the Auckland Regional Council Strategy, or other Northland Regional Pest Management Strategies. It also conforms to the Regional Policy Statement for Northland.

Monitoring and Reporting
The Northland Regional Council will maintain a database of infestations, recording areas affected, density of infestations and control activities carried out by the Council. Progress towards objectives set in the Strategy will be recorded in the Council's Annual Plan or LTCCP, as appropriate.

Term of Strategy **5 years**

Rules

6.4.1.11 Control of Rabbits by the Land Occupiers

Where the management agency has undertaken initial control work reducing rabbit population density below 4 on the McLean Scale, or where the population has traditionally been below 4, the occupier shall maintain the population below that level at his/her own expense.

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 suppled 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.

6.4.1.12 Prohibition on the Liberation of Rabbits or Hares (including domestic and commercial rabbits)

No person shall liberate or release any rabbits or hares from captivity in Northland.

6.4.1.13 Prohibition on Transport of Live Feral Rabbits and Hares into Northland

No person shall transport any live feral rabbits or hares into Northland from any other part of New Zealand

6.4.1.16 Prohibition on the Distribution and Sale of Pest Animals

No person shall distribute to other persons or offer for sale or hold in a premises where animals are offered for sale any live pest animal, which is the subject of a Regional Pest Management Strategy, except for slaughter.