

# Hawke's Bay Regional Predator Control Technical Protocol (PN 4970)

This Regional Predator Control Protocol sets out areas that are Predator Control Areas and the required monitoring threshold to meet the Predator Control Area programme rule in the Hawke's Bay Regional Pest Management Plan 2018 -2038. This rule and monitoring threshold applies to all Predator Control Areas identified in this document.

## ***Predator description***

Ferrets, stoats, weasels are part of the Mustelid family, which is a group of small to medium sized carnivores. Mustelids have large home ranges and are active day and night. They are opportunistic predators and have a strong musk odour. Ferrets are the largest mustelid in New Zealand. Male ferrets grow up to 44cm and females up to 37cm in length. The undercoat is creamy yellow with long black guard hairs that give the ferret a dark appearance. A characteristic black face mask occurs across the eyes and above the nose. Stoats have long, thin bodies with smooth pointed heads. Ears are short and rounded. They are smaller than ferrets. Males grow up to 30cm and females up to 25cm in length. Their fur is reddish- brown above with a white to yellowish underbelly. Stoats have relatively long tails with a distinctive bushy black tip. Weasels are the smallest and least common mustelid in New Zealand. Males grow to about 20cm. Their fur is brown with white undercoat, often broken by brown spots. Their tails are short, brown and tapering.

Feral cats resemble domestic cats in both size and colouration. Coat colours vary from pure black to orange tabby and some resemble the striped dark and pale grey of the true European wild cat. Commonly revert to black, tabby or tortoiseshell with varying extents of white starting from the belly and breast. Adult male cats are generally larger than the females and can weigh up to five kg.

They tend to be solitary and territorial compared to domestic stray or unwanted cats that tend to form colonies. Territory is marked by scent secreted from anal glands and by spraying urine. Feral cats are mainly active at night. Their vision and hearing are acute.

Inhabits a wide range of urban, rural and forest habitats. Found from sea level to alpine habitats. Diet is wide-ranging and includes small mammals, fish, birds and invertebrates. They have 2-3 litters per year with an average of 4 young in each.

## ***Adverse effects***

Although habitat loss and modification remains a threat to native biodiversity, a more equally serious threat is from invasive introduced species. Introduced predators, such as ferrets, stoats, weasels and feral cats, pose a significant threat to our remaining natural ecosystems and habitats and threatened native species and can have a considerable negative impact on primary production. Ferrets, stoats, weasels and feral cats are distributed throughout the Hawke's Bay region.

Mustelids were introduced in New Zealand in the 1880's in an attempt to manage growing rabbit populations. This had minimal impact on rabbit densities but had a significant impact on New Zealand's Biodiversity. Mustelids are implicated in the extinction of some indigenous bird species and as the major cause of decline of many others. Ferrets are also a threat to agriculture, particularly through their role as a vector (carrier) of bovine tuberculosis. Mustelids are a threat to poultry farms and carry parasites and toxoplasmosis, which can cause illness in humans and livestock.

Feral cats have been branded as 'the ultimate predators' in New Zealand and have been nominated as among 100 of the "World's Worst" invaders. New Zealand's unique native wildlife is particularly vulnerable to predation by cats. Feral cats kill young and adult birds and occasionally take eggs, prey on native lizards, fish, frogs and large invertebrates. Cats are highly efficient predators, and have been known to cause local extinctions of seabird species on islands around the world. Both sea and land birds are at risk, particularly those that nest or feed on or near to the ground. Feral cats are implicated in a small way in the spread of Bovine Tuberculosis, with the potential to infect cattle. They also carry

parasites and toxoplasmosis that causes abortions in sheep and illness in humans. Feral and stray cats can be aggressive towards pet cats. Through fighting they cause severe injuries sometimes resulting in the pet cat having to be put down. Stray cats are likely to interbreed with the un-neutered domestic cat population and may spread infectious diseases.

### **Purpose of Predator Control Areas**

Hawkes Bay Regional Council has been controlling possums through its Possum Control Area (PCA) programme since 2000. There has been a very high level of support for the PCA programme, and a strong belief by most land occupiers within the programme that it is providing value for money for programme participants. The programme has grown to over 600,000ha and is exceeding its target with an average residual trap catch (RTC) of 2.3% across all PCA programmes. This success and landowner support has provided the foundation for further strengthening PCA benefits.

Land owners within PCAs are now requesting predator control be undertaken for species such as cats and mustelids. Although cats are known to predate on native species it is their role as a key vector of toxoplasmosis that concerns most land owners. In agriculture, toxoplasmosis has a significant impact on sheep production, with recent research suggesting there is a substantial economic impact to the Hawkes Bay region through loss of lambs. A survey undertaken of NZ sheep flocks in 2011 indicated 100% seroprevalence of Toxoplasmosis in the flocks surveyed. Concern was also raised by land owners around mustelid impacts on biodiversity including waterfowl and ferrets as known TB vectors.

Predator pests such as mustelid's and feral cats have a major adverse effect on NZ native flora and fauna. Predator Free New Zealand 2050 (PFNZ) and its associated funding is an important political and funding milestone in the war against predator pests. Public conservation land, sanctuaries, urban communities and farmland all have key roles in achieving a predator free nation.

Integrating large scale predator control into PCA programmes can provide a key platform for delivering additional economic and environmental outcomes to land owners. This coupled with appropriately targeted intensive high biodiversity value site protection will provide the greatest likelihood of significant long term integrated biodiversity recovery and primary production benefits across the Hawkes Bay region.

### **Process for forming a Predator Control Area**

A Predator Control Area is created once written agreements have been entered into with 75% or more of the total land area. The Council will undertake initial predator control work within the entire Predator Control Area. It is only once that initial predator control work is completed that land occupiers within the area are required to maintain stoats, ferrets, weasels and feral cats in accordance with this Protocol.

A Predator Control Area is defined as an area identified as a Predator Control Area within this Protocol. All Predator Control Areas will be mapped and inserted into this Protocol once the 75% land area threshold has been reached and initial control work has been completed within the area.

Once the Council has given notice to affected land occupiers and in the NZ Gazette that this Protocol has been amended to include an additional map, the map will have legal effect as part of the Hawke's Bay Regional Pest Management Plan 2018 - 2038. Therefore occupiers within that mapped area will be required to comply with the requirements within this Technical Protocol from the date specified in the letter to land occupiers and the Gazette notice.

This Technical Protocol is incorporated by reference into the Hawke's Bay Regional Pest Management Plan 2018 – 2038. If technical requirements in the Protocol are updated, occupiers of land within a Predator Control Area are required to maintain pests in accordance with the amended Protocol from the date specified in the Gazette notice. There is no further requirement for the Council to re-enter into written agreements with land occupiers to ensure compliance with the amended Protocol.

## **Predator Control areas**

- 1) Names and description
- 2) Area mapped

## **Predator Maintenance requirement**

Permanent ferret, stoat, weasel and feral cat traps must be cleared and maintained regularly as such that the average camera trap rate (CTR) over any parcel of land in a Predator Control Area does not exceed <1%. Traps must be serviced a minimum four times per calendar year and a trap must be cleared and reset within one month of being set off.

The ongoing maintenance of predator densities within a Predator Control 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 Predator Control Area will at their own cost be responsible for maintaining predator densities in alignment with the **Predator Maintenance Requirement**. They may elect to carry out their own control or engage a contractor to carry out control.

**Council:** HBRC will maintain predator densities in alignment with the **Predator Maintenance Requirement** on land that it occupies or manages within a Predator Control Area.

**Department of Conservation:**

HBRC will agree a maintenance control programme with the Department of Conservation DOC land in a Predator Control Area.

**River margins:**

The occupiers of land adjoining a river and in a Predator 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 Long Control Area will at their own cost be responsible for maintaining predator densities in alignment with the **Predator Maintenance Requirement**. 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 Predator Control Area, then a marginal strip no less than 500 metres into the production forestry land will be included into the Long Term Predator Control Area. The Occupier is required to maintain predator densities within this marginal strip in alignment with the **Predator Maintenance Requirement** and will meet the cost of this work. Maintaining a marginal strip of 500m is likely to require control over an area of forest greater than 500m.

## **Wireless network system**

If a wireless network trap monitoring system has been installed, land occupiers must clear activated traps within 30 days of activation.

**Note:** serviced means the removal of dead animals, inspection of trap to make sure it is functioning properly, grass/obstacles removed from around the trap entrance and trap rebaited with fresh bait.

## Appendix one – Predator Control Area insert from Hawke’s Bay Regional Pest Management Plan 2018 - 2038

### 6.4.5 Predators (ferret, stoat, weasel and feral cat)

#### **Background**

As discussed in the Possum programme, Hawke’s Bay Regional Council has been controlling possums since 2000 and has received a very high level of support for the PCA programme. This success and landowner support has provided the foundation for further strengthening PCA benefits.

Land owners within PCAs are now requesting predator control be undertaken for species such as feral cats and mustelids. Although feral cats are known to predate on native species, their role as a key vector of toxoplasmosis also concerns many land owners. In agriculture, toxoplasmosis has a significant impact on sheep production, with recent research suggesting there is a substantial economic impact to the Hawke’s Bay region through loss of lambs. A survey undertaken of NZ sheep flocks in 2011 indicated 100% seroprevalence of toxoplasmosis in the flocks surveyed. Concern was also raised by land owners around mustelid impacts on biodiversity including waterfowl and ferrets as known TB vectors.

Predator pests such as mustelid’s and feral cats have a major adverse effect on NZ native flora and fauna. Predator Free New Zealand 2050 (PFNZ) and its associated funding is an important political and funding milestone in the war against predator pests. Public conservation land, sanctuaries, urban communities and farmland all have key roles in achieving a predator free nation.

Integrating predator control alongside PCA programmes can provide a key platform for delivering additional economic and environmental outcomes to land owners. This coupled with appropriately targeted intensive high biodiversity value site protection will provide the greatest likelihood of significant long term integrated biodiversity recovery and primary production benefits across the Hawke’s Bay region.

However, Predator Control Areas will not replace Possum Control Areas. Rather, they are designed to add further value to possum control.

The Council will identify Predator Control Areas and will seek to enter into written agreements with individual landowners within those areas to undertake long term predator control maintenance. Once written agreements have been entered into with respect to 75% or more of the total land area, the Council will undertake initial predator control work within the entire Predator Control Area. After initial predator control work has been undertaken, occupiers within the area will be required to maintain the listed pests in accordance with the Hawke's Bay Regional Predator Control Technical Protocol.

A Predator Control Area is defined as an area identified as a Predator Control Area in the Hawke's Bay Regional Predator Control Technical Protocol (the Protocol). The Protocol will contain mapped



*Source: Hawke's Bay Regional Council*



Predator Control Areas. These maps will be inserted into the Protocol once the 75% land area threshold has been reached and initial control work has been undertaken within the area. Once the Council has given notice in the NZ Gazette that the Protocol has been amended to include an additional map, the map will have legal effect as part of the RPMP. Thereafter occupiers within that mapped area will be required to comply with the requirements in the Protocol from the date specified in the Gazette notice.

### ***Description***

Ferrets, stoats, weasels are part of the Mustelid family, which is a group of small to medium sized carnivores. Mustelids have large home ranges and are active day and night. They are opportunistic predators and have a strong musk odour. Ferrets are the largest mustelid in New Zealand. Male ferrets grow up to 44cm and females up to 37cm in length. The undercoat is creamy yellow with long black guard hairs that give the ferret a dark appearance. A characteristic black face mask occurs across the eyes and above the nose. Stoats have long, thin bodies with smooth pointed heads. Ears are short and rounded. They are smaller than ferrets. Males grow up to 30cm and females up to 25cm in length. Their fur is reddish-brown above with a white to yellowish underbelly. Stoats have relatively long tails with a distinctive bushy black tip. Weasels are the smallest and least common mustelid in New Zealand. Males grow to about 20cm. Their fur is brown with white undercoat, often broken by brown spots. Their tails are short, brown and tapering.

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They tend to be solitary and territorial compared to domestic stray or unwanted cats that tend to form colonies. Territory is marked by scent secreted from anal glands and by spraying urine. Feral cats are mainly active at night. Their vision and hearing are acute.

Inhabits a wide range of urban, rural and forest habitats. Found from sea level to alpine habitats. Diet is wide-ranging and includes small mammals, fish, birds and invertebrates. They have 2-3 litters per year with an average of 4 young in each.

### ***Adverse effects***

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Mustelids were introduced in New Zealand in the 1880's in an attempt to manage growing rabbit populations. This had minimal impact on rabbit densities but had a significant impact on New Zealand's Biodiversity. Mustelids are implicated in the extinction of some indigenous bird species and as the major cause of decline of many others. Ferrets are also a threat to agriculture, particularly through their role as a vector (carrier) of bovine tuberculosis. Mustelids are a threat to poultry farms and carry parasites and toxoplasmosis, which can cause illness in humans and livestock.

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parasites and toxoplasmosis that causes abortions in sheep and illness in humans. Feral and stray cats can be aggressive towards pet cats. Through fighting they cause severe injuries sometimes resulting in the pet cat having to be put down. Stray cats are likely to interbreed with the un-neutered domestic cat population and may spread infectious diseases.

### Objective 10

Over the duration of the Plan, sustainably control stoats, ferrets, weasels and feral cats on land contained within Predator Control Areas to ensure population density on that land does not exceed levels outlined in the Hawke's Bay Regional Predator Control Technical Protocol (PN 4970) to minimise adverse effects on environmental values and economic well-being within the Hawke's Bay region.

#### ***Principal measures to be used***

Appropriate measures drawing on **Requirement to act, council inspection, service delivery, advocacy and education** activities described in section 5.3 of the Proposal will be used to achieve the Objective.

To assist achieving the Objective, Predator Control Areas will be established. Creating these areas will be done with agreement from landowners. The process and responsibilities to be followed are outlined in the Hawke's Bay Regional Predator Control Technical Protocol (PN 4970).

#### ***Alternative measures that have been considered***

This is a new programme, converting current Possum Control Areas to Predator Control Areas, and was consulted on during the Discussion Document. Two options were put forward.

- 1 Council funded initial predator control and installation of trap networks followed up with land occupiers be responsible for maintaining low predator densities through the use of a contactor or clearing activated kill traps.
- 2 Not instigating the new programme (do nothing).

The first option received strong support from the community and for that reason it is included in the Proposal

### Plan Rule 12

All occupiers within a Predator Control Area shall maintain ferrets, stoats, weasels and feral cats in accordance with the Hawke's Bay Regional Predator Control Technical Protocol (PN 4970).

A breach of this rule creates an offence under section 154N (19) of the Act.

#### ***Explanation of rule***

The purpose of Predator Control Areas is to enable communities, who wish to do so, to create sustained low predator density areas to achieve both biodiversity and economic outcomes. If the community decides to form a Predator Control Area, whereby the 75% land area threshold is met, it is critical that there is a rule to both protect the initial investment to be undertaken by Council and other partners. Securing this investment in the initial knockdown phase and binding land owners that

would otherwise not participate, and therefore potentially compromise, the programme is important to long term programme success.

All land owners/occupiers within a proposed Predator Control Area will be visited individually and have the programme discussed. Land owners/occupiers will be asked if they are willing to sign up to a management agreement. Initial predator control work will not commence until the 75% land area threshold has been met. Upon completion of initial predator control, whereby predator abundance has been reduced to levels required under the Hawke's Bay Regional Predator Control Technical Protocol (PN 4970), land occupiers within a Predator Control Area become responsible for maintaining stoats, ferrets, weasels and feral cats in accordance with the Hawke's Bay Regional Predator Control Technical Protocol (PN 4970).

The Hawke's Bay Regional Council will give notice to affected land occupiers and in the NZ Gazette of the date on which an area becomes a Predator Control Area.