New Zealand National Cat Management Strategy Discussion Paper

September 2017
New Zealand National Cat Management Strategy Discussion Paper

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Purpose

To proactively address the positive and negative impact of cats in New Zealand.

To develop a humane national cat management strategy through a collaborative and proactive approach that recognises the significant positive benefits of cat ownership, whilst also acknowledging the concerns about the impact cats have in New Zealand.

To encourage education of the public about the benefits of responsible cat ownership.

To lobby local and central government to enact useful legislation that facilitates sustainable humane cat management.

Strategic vision

Cats in New Zealand are responsibly owned, valued and humanely managed in a way that protects their welfare and our unique environment, by 2025.
Strategic goals and outcomes

**Table 1: New Zealand national cat management strategic goals and outcomes**

<table>
<thead>
<tr>
<th>Strategic goals</th>
<th>Strategic outcomes</th>
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<tbody>
<tr>
<td>All cats are responsibly owned and valued, and the benefits of cat ownership are recognised</td>
<td>The intrinsic value of cats is recognised</td>
</tr>
<tr>
<td></td>
<td>All cats are responsibly owned</td>
</tr>
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<td></td>
<td>The benefits of cat ownership are recognised</td>
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<tr>
<td>Humane and effective cat management is supported through an appropriate legislative, regulatory and educative framework</td>
<td>Appropriate legislative and regulatory framework enables humane cat management</td>
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<td></td>
<td>Responsible agencies are identified to implement legislative and regulatory requirements</td>
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<td></td>
<td>Cat owners understand their legal obligations</td>
</tr>
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<td></td>
<td>Responsible cat ownership is defined, understood and complied with</td>
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<tr>
<td>The protection of our native species and ecosystems is enhanced through the humane management of cats</td>
<td>There are no feral cats in New Zealand</td>
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<td></td>
<td>There are no stray cats in New Zealand</td>
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<tr>
<td></td>
<td>The public understand the potential impacts of cat predation on our unique environment</td>
</tr>
<tr>
<td>Minimising the negative impact of cats on the community and our shared environment, both urban and rural</td>
<td>The effects of cats on human health are recognised, understood and addressed</td>
</tr>
<tr>
<td></td>
<td>The effects of cats on New Zealand pastoral industries and the marine environment are recognised, understood and addressed</td>
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<tr>
<td></td>
<td>Nuisance behaviours of owned cats in communities are understood and reduced</td>
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The National Cat Management Strategy Group

The National Cat Management Strategy Group (NCMSG) was formed in November 2014 by eight national organisations to develop a national overarching strategy for responsible, compassionate and humane cat management in New Zealand through a collaborative and proactive approach. The key principles of the strategy are the promotion of responsible cat ownership, humane cat management, and environmental protection.

The NCMSG consists of representative national organisations that have an interest in cat management. The members are Local Government New Zealand (LGNZ), the Morgan Foundation; the New Zealand Companion Animal Council (NZCAC); the New Zealand Veterinary Association (NZVA); NZVA Companion Animal Veterinarians (CAV); and the Royal New Zealand Society for the Prevention of Cruelty to Animals (RNZSPCA). The Ministry for Primary Industries (MPI) is an observatory member and the Department of Conservation (DOC) is a technical advisory member.

It is not possible to accurately quantify the cat population in New Zealand numerically, as exact cat numbers are unknown. However, estimates indicate that there is a significant cat overpopulation problem in New Zealand. There are approximately 1,134,000 owned cats (New Zealand Companion Animal Council 2016) and an estimated 196,000 stray cats (NZVA 2013). It is impossible to accurately quantify the number of feral cats in New Zealand, as their densities vary widely. Feral cat densities in New Zealand (which is 268,021 km$^2$ in area) have been reported to vary from between 0.19-0.27/km$^2$ (on private conservation land on Stewart Island [Harper 2007]) to 3-5.6/km$^2$ (farmland with an abundant food supply [Langham & Porter 1991]).

Data concerning the New Zealand cat problem are largely unavailable or estimated, as there is no central depository for the numbers of cats rehomed, euthanased, trap-neuter-returned or trapped and killed. Anecdotal evidence suggests that tens of thousands of cats are rehomed, euthanased or trap-neuter-returned by veterinarians and animal shelters annually. In addition, lethal control is carried out by the DOC, regional councils, private land owners, and private trapping groups, with no consistent recording.

The NCMSG recognises the many inherent positive benefits and value of cat ownership, and supports responsible cat ownership, while acknowledging the problems associated with cat overpopulation and feral cats. The NCMSG is cognisant that the issue of cat management is complex, and that the interests of all species must be considered. Collaboration between the diverse national stakeholder organisations in the NCMSG, and many others not yet involved, is
the key to addressing this important issue. There is no 'one solution' for humane cat management and environmental protection; instead there are a range of possible solutions that can be employed to help manage cats and the applicability of these potential solutions to different scenarios will be dependent on numerous factors. The NCMSG feels strongly that, when stray cat management is justified, non-lethal methods of removal (e.g. rehoming or best practice managed, targeted trap-neuter-return [mtTNR]) must always be the first option. However, even best practice mtTNR should not occur near sensitive wildlife areas. The NCMSG’s preference is for stray cats to be rehomed, but it is acknowledged that this will not always be possible as many of these cats lack socialisation to humans making them unsuitable to be rehomed because of both cat welfare and human safety concerns. If cats must be euthanased, the NCMSG firmly believes that only the most humane and best practice methods should be utilised.

The long term strategic vision of the NCMSG is for all cats in New Zealand to be responsibly owned and valued, and that cats are humanely managed in a way that protects their welfare, and our unique environment.
National Cat Management Stakeholders

National Cat Management Strategy Group Members
CAV
LGNZ
NZCAC
MF
NZVA
RNZSPCA

National Cat Management Strategy Group Technical Advisors
DOC

National Cat Management Strategy Group Observers
MPI

Abbreviations
CAV – NZVA Companion Animal Veterinarians
DOC – Department of Conservation
LGNZ – Local Government New Zealand
MPI – Ministry for Primary Industries
MF – Morgan Foundation
NZCAC – New Zealand Companion Animal Council
NZVA – New Zealand Veterinary Association
RNZSPCA - Royal New Zealand Society for the Prevention of Cruelty to Animals

Interested parties
Academics
AgResearch
Animal welfare groups
Cat groups
Environmental groups
Federated Farmers
Landcare New Zealand
New Zealand public (both cat owning and non-cat owning)
Regional and Territorial Authorities

Acknowledgements

All National Cat Management Strategy Group Members contributed to the content of this document. The financial contribution of the New Zealand Companion Animal Council and New Zealand Regional Councils is sincerely appreciated. The contribution of RSPCA Australia is also gratefully acknowledged.
1. Executive Summary

The National Cat Management Strategy Group (NCMSG) recognises the intrinsic value of cats and their value to people, the community and to New Zealand society. The NCMSG also recognises the need to balance the needs of cats, cat owners and cat carers with the potentially negative impacts of cats on communities, other species and on ecosystems. There is a need to humanely manage cats in New Zealand in a way that protects their welfare and our unique environment. The New Zealand National Cat Management Strategy Discussion Paper outlines recommendations from the NCMSG on ways to achieve this goal and details the supporting evidence for these recommendations.

The commonly used companion, stray and feral cat categories are not adequate for effective planning of cat management strategies to encompass all cat populations that need to be managed under the plan. The cat overpopulation problem is complex and it is important that the cat categories reflect that complexity and the need for different management strategies for different cat populations. The lack of appropriate and detailed cat categorisation has limited the ability to effectively manage cats in the past, particularly grouping all 'stray' cats together; this category actually includes a number of different cat populations that need different management strategies. The divisions within each of the proposed categories will allow the different groups of cats to be effectively and legally managed, whilst also providing added safety for previously unprotected cats. Therefore, the following cat population categories are proposed and used in this report:

- Feral cats: these cats are unowned, unsocialised, and have no relationship with or dependence on humans.
- Domestic cats:
  - Companion (owned) cats: these cats are considered to be owned by a specific person, are sociable, and are directly dependent on humans.
  - Stray cats: these cats are unowned, of varying sociability, have varying interactions with humans and dependence on humans. This category is subdivided into:
    - Socialised stray cats: this category is further subdivided into managed and unmanaged socialised stray cats.
    - Unsocialised stray cats: this category is further subdivided into managed and unmanaged unsocialised stray cats.
Managed stray cats may be socialised or unsocialised cats. This category includes, but is not limited to, cats referred to as:

- Colony cats: these are managed stray cats within a specific cat colony.
- Semi-owned cats: these managed stray cats are of varying sociability, many are socialised to humans, they interact with people regularly and are directly and indirectly dependent on specific humans but are not part of a cat colony.

The National Cat Management Strategy Group has assessed the existing literature and available resources concerning feral and domestic cat management strategies and taken into consideration feedback from stakeholder consultation to devise an evidence-based cat management plan for New Zealand. Key recommendations have been agreed by the NCMSG and are outlined below:

1. Any legislation and plans to manage feral and domestic cats must recognise and take into account that cats are sentient animals capable of experiencing positive and negative affective states, including pleasure, pain and distress, as acknowledged in New Zealand law.

2. Effective management of stray and companion cats requires an integrated, consistent and long-term approach focusing on non-lethal cat management methods; there is an urgent need for effective and humane cat management measures that are acceptable to the community. Changing community attitudes, beliefs and behaviours must be a foundation of every strategy to manage cat populations. Key components of this approach must be:

   a) Education programmes that focus on increasing public understanding of the need for cat management and acceptance of critical cat management measures. A strong and ongoing education and community support programme for important cat management measures is of vital importance.

   b) Programmes to promote the value of cats, enhance the human-cat bond and increase access to rental accommodation, which can assist in reducing cat surrender and abandonment.
c) Desexing initiatives for companion cats that are accessible for all those who need access to these services. This should result in an increased number of cats desexed which would otherwise remain entire due to owner or carer inability to have cats desexed. There should also be a consequent decrease in litters of kittens produced.

d) Introduction of wide-spread pre-pubertal desexing of cats. This will reduce the number of litters of kittens produced before cats are desexed and improve the effectiveness of other desexing initiatives.

e) Nationwide mandatory desexing and microchipping of cats and kittens at point of sale or transfer of ownership and prior to return to their owner if the cat or kitten is impounded.

f) Nationwide responsible cat ownership education programmes and legislation to encourage and reinforce responsible ownership with the aim of:
   - Increasing acceptance and implementation of cat containment, especially in sensitive wildlife areas. Measures to ensure suitably enriched containment environments for cats must be included to safeguard cat health and welfare.
   - Increasing the use of effective anti-predation devices for cats with outdoor access.
   - Increasing the number of cats identified through mandatory microchipping and physical identification.
   - Increasing acceptance and implementation of pre-pubertal desexing of cats.

g) Restrictions on the number of cats allowed to be kept on a property or by an individual. This strategy can help to encourage desexing, prevent ‘kitten farms’ and allow for better enforcement tools to manage hoarders.
3 The following cat population categories should be used to provide the basis for a management framework:

- Feral cats
- Domestic cats
  - Companion (owned) cats
  - Stray cats
    - Socialised stray cats (managed and unmanaged)
    - Unsocialised stray cats (managed and unmanaged)

See proposed cat management flow chart based on these cat categories (Figure 4).

4 Programmes that target stray cat carers are required. These would include education on responsible cat ownership issues such as desexing, vaccinating, microchipping and other relevant cat management topics. Since stray cat carers do not consider themselves cat owners, they are unlikely to comply with cat management legislation aimed at cat owners. Therefore, the effectiveness of future approaches to reduce the number of stray cats will be improved by targeting stray cat carers with specific education messages and management strategies, particularly encouraging desexing and identification (microchip and physical identification) and appropriate health care of managed stray cats. Desexing of these cats must also be facilitated to make this viable.
Stray cat management is a short-term strategy (albeit short-term meaning over some years) to reduce the numbers of stray cats with the ultimate goal of having very few or no stray cats in New Zealand. In order to have the best chance of achieving this goal the follow recommendations are made:

a) Stray Cat Management Guidelines should be created and implemented to facilitate best-practice, managed and targeted trap-neuter-return (mtTNR) programmes for stray cats. These guidelines should be adapted and improved as new evidence becomes available.

b) Stray Cat Colony Management Guidelines should be created and implemented. These should be adapted and improved as new evidence becomes available.

c) A managed stray cat registry with specific criteria should be created and implemented (e.g. cats must be desexed, ear tipped, microchipped but there should be no mtTNR in sensitive wildlife areas, exclusion or buffer zones).

It is acknowledged that mtTNR is not appropriate in all situations. In those instances where mtTNR is inappropriate (for example, near a sensitive wildlife area), the NCMSG supports trap and rehome. Where no other humane and non-lethal opinions are available the NCMSG reluctantly acknowledges that trap and humane killing methods for stray cats may be necessary, if this is the only option available and cat numbers must be reduced to safeguard the survival of vulnerable native species. These methods are only acceptable if they are carried out in accordance with best practice guidelines to safeguard cat welfare.
6 Best practice cat management requires communication with all stakeholder groups and involvement of stakeholders in decision making and solutions. All stakeholders involved with cat management need to work collaboratively towards implementing effective and humane management strategies, with MOUs between major stakeholders.

7 It is necessary to develop a national cat management task force, which would oversee research, operationalise the cat management strategy and coordinate and oversee evaluation of management efforts. Funding and support from government and other stakeholder groups will be necessary in order to achieve this.

Further research is needed to inform ongoing humane cat management strategies and will require a national allocation of resources, coordination and priority setting. This would be an important component of the national cat management task force work. Scientific rigor is needed to identify the problems and impacts associated with cats, determine causes and then identify solutions, before designing an action plan.

8 The significant inconsistencies (or absences) in legislation, approach and level of commitment to cat management at the local and central government level need to be urgently addressed. A consistent approach is vital to ensure that approaches are complementary, not opposing, and that gaps are avoided between responsibilities, laws and initiatives, and to ensure that enforcement can occur under the legislation.
Creation and implementation of a national cat action plan and supporting legislation in the form of a National Cat Management Act and local bylaws is required. These will allow for mandated, comprehensive and consistent implementation of nationwide humane management of all cat populations in New Zealand. This plan must include provision for effective and ongoing evaluation, data collection and transparent reporting.

Relevant Codes of Practice and Standard Operating Procedures will need to be developed on a national level for cat management methods, to ensure consistency in cat management practises.

The National Cat Management Act should allow for the creation and implementation of local cat bylaws which will allow for cats to be managed through a variety of mechanisms, as deemed appropriate by the relevant Council. These may include:

- Cat curfew/containment and/or restriction in sensitive wildlife areas
- The ability to deal with nuisance cat issues (for example, through an infringement system)
- Setting a limit on the number of cats to be kept in each household but allowing permission to be sought from the Council to keep more cats under certain circumstances
- The removal of stray cats, if necessary, with the proviso that non-lethal methods of removal (e.g. rehoming or mtTNR) will always be the first option where possible
- A cat colony management register

Changes to legislation should be incremental to allow public education, acceptance and compliance with new requirements. It will likely be necessary to mandate components of the plan in order to make it effective. These changes must come from central and local government and be implemented locally.
Local governments should consider establishing cat management advisory groups with terms of reference that include:

- Monitoring the implementation of cat management legislation and compliance with mandatory requirements
- Consulting with key local stakeholders
- Identifying key metrics to evaluate the effectiveness of cat management legislation

Evaluation of cat management strategies is essential in order to determine their effectiveness. Key evaluation measures and processes for data collection need to be agreed by all stakeholders and applied to all new and existing initiatives. Transparent and public reporting of both positive and negative outcomes is of great importance.

Evaluation outcomes should be reported and incorporated into the development of cat management plans at the national and local level.

Creation and implementation of a centralised national database of statistics relevant to cat management such as humane killing of cats, cat euthanasia, cat trapping, mTNR, shelter intake, and humane killing methods.

An integrated approach to the management of feral and domestic cats is vital to ensure that strategies are complementary, not opposing, and that no vital aspects in terms of responsibilities, laws and initiatives are overlooked. The flow between the different cat populations is fluid, so it is important to address all sources of cats in a coordinated and multifaceted initiative. Assessment of the effect of management strategies which address owned and stray cats on feral cat numbers and their impacts on wildlife is needed to provide data supporting this approach. This framework should applied to any new initiative in cat management.

Practitioners responsible for implementing feral (and domestic) cat management need to have an understanding of the animal welfare impacts of available methods, and be competent to implement strategies using best practice. This needs to be monitored and managed with a regular auditing and compliance framework.

All cat management activities should adhere to Codes of Practice and Standard Operating Procedures to ensure humane treatment of cats.
It will be necessary to identify sensitive wildlife areas nationwide. Subsequently, implementation of comprehensive but humane removal of invasive and potentially damaging species from within those areas, including feral and stray cats, will be required. Local authorities need powers to implement humane cat removal in zones of human habitation and urban development, and in and near sensitive wildlife areas, including: restriction of cat ownership, cat curfews and/or strict 24-hour cat containment laws and enforcement. These areas are not considered suitable for mtTNR programmes.

2. Introduction

New Zealand is home to millions of cats that have great value to people, the community and to New Zealand society. However, cats can also pose a significant threat to wildlife and create a complex animal management problem associated with many societal issues. These issues include ethical concerns about the euthanasia of thousands of healthy domestic cats and kittens every year, and the humaneness of feral cat control methods, moral stress for the people involved, financial costs to organisations that manage unwanted domestic cats and feral cats, environmental and biodiversity costs, potential for disease spread, community nuisance, and welfare concerns for cats. New approaches to management of this complex issue require understanding of the cat populations and stakeholders involved and a critical assessment of previous management strategies.

Cats can be categorised into various population categories which, together, make up a larger, interconnected network called a ‘meta-population’ (Jarman et al. 1993; Slater 2001; Toukhsati et al. 2007; Webb 2008; Marston et al. 2009; Alberthsen et al. 2013b; Miller et al. 2014b; Miller et al. 2014a). In the scientific and popular literature related to cat overpopulation and management, the terms used to categorise cats into different populations are inconsistent and sometimes more than one of the terms may be applied to some cats, resulting in some confusion (Slater 2001; Hughes et al. 2002; Toukhsati et al. 2007). However, all of these terms share a common basis: they describe some aspect of a cat’s relationship with humans: whether the cat is ‘owned’, confined, socialised, or dependent on humans (Haspel et al. 1990; Moodie 1995; Zasloff et al. 1998; Levy et al. 2003a; Levy et al. 2003b; Toukhsati et al. 2007; Webb 2008; Marston et al. 2009).
The ‘meta-population’ is a similar concept to the cat continuum described in Australia (Webb 2008; Zito 2015a), which also includes elements pertaining to the human-cat relationships involved, such as the human’s perception of ownership of the cat and feelings of responsibility for the cat, association time, attachment, caretaking and interaction behaviours, and the cat’s dependence on humans. This concept is illustrated diagrammatically in Figure 1. Relationships are portrayed in this figure as linear, but in reality are multidimensional and interactive, making cat management very challenging.

The different populations/categories of cats are of importance to cat management because strategies must be aimed at the source of the problem cats. For example, desexing programmes that aim to reduce reproduction will have little impact on cats that do not have an owner or carer who is willing to facilitate the desexing process (Alberthsen 2014).
The cat population categories that have been most commonly referred to are those described by Moodie (1995) and the New Zealand Ministry for Primary Industries (2007):

- **Feral cat**: a cat that is not a stray cat and that has none of its needs provided by humans. Feral cats generally do not live around centres of human habitation. Feral cat population size fluctuates largely independently of humans, is self-sustaining and is not dependent on input from the companion cat population.

- **Stray cat**: a companion cat that is lost or abandoned or born stray, and that is living as an individual or in a group (colony). Stray cats have many of their needs indirectly supplied by humans, and live around centres of human habitation. Stray cats are likely to interbreed with the un-desexed companion cat population.

- **Companion cat**: a cat that lives with humans as a companion and is dependent on humans for its welfare.
The NCMSG recommends that these terms are redefined to better capture the cat categories that exist in New Zealand, and how they are managed.

The stray cat population includes a sub-population of cats that has been largely ignored in management strategies to date, but which has been shown to make a significant contribution to unwanted cat numbers: managed stray cats which are fed or cared for by people (Toukhsati et al. 2007; Levy et al. 2014; Zito et al. 2015). These managed stray cats have been termed ‘semi-owned cats’ in the literature; a precise definition was described by Zito et al. (2015b) as a cat that is fed or cared for often or always for at least one month by a person who does not perceive ownership for the cat. Some managed stray cats are part of a group of cats cared for intentionally by humans; these are often termed ‘colony cats’. These cats all have a human carer who can be the target of initiatives to address this source of cats but need a different management approach to cat owners. Cat carers and cat semi-owners do not consider themselves to be cat owners and so will not comply with regulations and other measures directed at cat owners. Therefore, it is necessary to address this cat population and associated cat carers with strategies specifically designed for this group.

The cat population categories are referred to in this report are:

- Feral cats: these cats are unowned, unsocialised, and have no relationship with or dependence on humans.

- Domestic cats
  - Companion (owned) cats: these cats are considered to be owned by a specific person, sociable, and are directly dependent on humans.
  - Stray cats: these cats are unowned, of varying sociability, have varying interactions with humans and dependence on humans. This category is subdivided into:
    - Socialised stray cats: this category is further subdivided into managed and unmanaged socialised stray cats.
    - Unsocialised stray cats: this category is further subdivided into managed and unmanaged unsocialised stray cats.

Managed stray cats may be socialised or unsocialised cats. This category includes but is not limited to cats referred to as:

- Colony cats: these managed stray cats are managed within a specific cat colony.
• Semi-owned: these managed stray cats are of varying sociability but are usually socialised to humans, they interact with people regularly and are directly and indirectly dependent on specific humans but are not part of a cat colony.

In this document the term domestic cat is used to refer collectively to all cats with some dependence (direct or indirect) on humans; this comprises cats in the stray and companion (owned) categories.

Although considerable efforts have been made to address cat overpopulation and the adverse impacts of feral cats, the complexity of the problem makes effective cat management very challenging. It is of great importance and urgency that new strategic approaches to cat management are adopted to mitigate the serious negative consequences of, particularly, the stray and feral cat problem in New Zealand.

3. The value of cats

One of the desired outcomes of the National Cat Management Strategy is that the value of cats is recognised.

Cats have a long history of association with humans dating back almost 10,000 years and both cats and humans have benefited from this association (Haye et al. 2004; Driscoll et al. 2007; Driscoll et al. 2009). Cats provide useful contributions to human societies, such as pest control, but above all they have become important in their role as peoples’ companions (Driscoll et al. 2007; Lipinski et al. 2008; Australian Companion Animal Council 2009; Driscoll et al. 2009). Cats also benefit from their relationship with humans and may form unique and close relationships with people (Turner 2000). Humans may provide cats with food, shelter, medical care and social companionship but human–cat relationships and the care offered to cats are very diverse (Adamelli et al. 2005; Zito 2015).

In addition to cats’ extrinsic value due to their importance to people, cats also have intrinsic value as complex and sentient beings. This has been formally recognised in New Zealand where the Animal Welfare Act was amended in 2015 to formally acknowledge the sentience of animals, including cats (New Zealand Government 2015).
3.1. Responsible cat ownership

One of the strategic goals of the National Cat Management Strategy is that all cats are responsibly owned and valued, and that the benefits of cat ownership are recognised. In addition, one of the desired outcomes of the National Cat Management Strategy is that responsible cat ownership is defined, and that cat owners understand and comply with responsible cat ownership requirements.

Responsible cat ownership is considered to include providing appropriate care, shelter, exercise, training, socialisation, identification, registration (where required), desexing and confinement (Fournier 2004; Marston et al. 2008). The Animal Welfare Act 1999 (New Zealand Government 1999) establishes the fundamental obligations relating to the care of animals in New Zealand. Under this Act, owners and persons in charge of cats are required to meet the physical, health and behavioural needs of the cats in their care, in accordance with good practice and scientific knowledge. Responsible owners acknowledge ‘ownership’ of their cat, provide care for their cat that fulfils the five domains of animal welfare (Mellor et al. 1994; Mellow 2004; Mellor et al. 2015; Mellor 2016a; Mellor 2016b) (Figure 2) and complies with the New Zealand Animal Welfare (Companion Cats) Code of Welfare 2007 (New Zealand Government 2007).
Figure 2: The Five Domains of animal welfare

The Five Domains model adapted to highlight survival-related and situation-related factors and their associated physical/functional domains, and examples of aligned negative or positive affects assigned to the mental domain. The overall affective experience in the mental domain equates to the welfare status of the animals. Note that an animal exercises ‘agency’ (Domain 4: behaviour) when it engages in voluntarily, self-generated and goal-directed behaviours (Mellor et al. 2015).
It is suggested that potential cat owners consider a variety of different factors including:

- Cat ownership is a commitment for the lifetime of the cat, which may be over 20 years.
- Finding an appropriate cat should involve careful deliberation and reflection on what qualities will suit the cat to the owner’s home and lifestyle.
- Cat ownership requires an investment of time and money. Costs include food, veterinary care, costs of containment and ongoing care of the cat if the owner is away.
- It is important to keep only the type and number of cats for which an appropriate and safe environment can be provided (including appropriate food, water, shelter, health care, companionship and enrichment).
- Cats should be properly identified with a microchip and external identification (collar and tag). The microchip implanter and cat owner should both record the cat’s microchip number. Other information (such as the owners’ contact details) should be registered on the New Zealand Companion Animal Register [NZCAR] to make it easier to return lost, stray or stolen cats to their owners. A cat’s microchip registration information needs to be kept up to date on the New Zealand Companion Animal Register [www.animalregister.co.nz].
- There are local by-laws and New Zealand central government law relating to cats that cat owners should be aware of and adhere to. For example, the Animal Welfare Act 1999 (New Zealand Government 1999), which is expanded upon in the New Zealand Animal Welfare (Companion Cats) Code of Welfare 2007 (New Zealand Government 2007). The law requires that cat owners:
  - Ensure that the physical, health and behavioural needs of their cat are met in a manner that is in accordance with both good practice and scientific knowledge.
  - Ensure that a cat that is ill or injured receives treatment that will alleviate any unreasonable or unnecessary pain or distress being suffered by the cat, where practicable, or ensure that the cat is euthanased if treatment is not possible, in order to alleviate any unreasonable or unnecessary pain or distress being suffered by the cat.
  - Must not desert a cat in circumstances in which no provision is made to meet its physical, health and behavioural needs.
• Cats should be desexed before they are able to start reproducing (at, or before, four months of age). This has health and behavioural benefits for the cat, and also helps to address urban animal management and overpopulation problems. Kittens can be desexed when they reach 1kg in body weight (or even at less than 1kg under certain conditions).

• Cat owners should provide appropriate health care for their cat in accordance with veterinary advice and support. Cats require both preventive and therapeutic health care (e.g. vaccinations, parasite control, and treatment and monitoring of health problems).

• Cats need adequate and appropriate socialisation, training, exercise and mental stimulation appropriate to each cat’s age, breed and health status. This improves the cat’s well-being and the well-being of other animals and people in their environment.

• Cats should be prevented from negatively impacting other people, animals and the environment. This necessitates proper waste disposal, noise control, keeping the cat confined indoors at least at night, and taking all responsible steps to avoid the cat straying.

• It is important to undertake some advance preparation to ensure the cat’s well-being in the case of an emergency or disaster, including assembling an animal specific evacuation kit.

• Thought should be given to alternative arrangements for the cat if, for some reason, it is no longer possible for the owner or carer to look after the cat.

• Declines in a cat’s quality of life should be recognised and acknowledged, and decisions should be made in consultation with a veterinarian regarding appropriate end-of-life care (e.g. palliative care, hospice, euthanasia).

•Owners must not kill or cause a cat to be killed in a manner that the cat suffers unreasonable or unnecessary pain or distress.

• Advice about responsible cat ownership can be sought from reputable agencies and cat health care providers.

The suggestions above are based on the American Veterinary Medical Association guidelines (American Veterinary Medical Association 2016) and the Animal Welfare (Companion Cats) Code of Welfare minimum standards and recommendations for best practice (New Zealand Government 2007).
3.2. The benefits of cat ownership

One of the desired outcomes of the National Cat Management Strategy is that the benefits of cat ownership are recognised.

New Zealand has one of the world's highest rates of cat ownership, with 44% of New Zealand households owning at least one cat (New Zealand Companion Animal Council 2016).

Many benefits have been associated with having a companion cat (Australian Companion Animal Council 2009). These include: social enablement (Giles-Corti et al. 2005; Zimolag et al. 2009), companionship (Siegel et al. 1999; Castelli et al. 2001), improved quality of life for the elderly (Zasloff 1996; Senepa et al. 2004), enhanced ability to cope with grief and stress (Rohlf et al. 2005), specific health benefits (Anderson et al. 1992; Straede 1993; Friedmann et al. 1995; Jennings 1997; Allen et al. 2001; Anderson 2004; Janevic et al. 2007; Qureshi 2009), and general health benefits (Headey 1999; Grabka et al. 2007), as well as benefits to children's health and development (Nagengast et al. 1997; Platts-Mills 2002; Wu et al. 2002; Frederick 2003; Russell 2003; Gagnon et al. 2004; Caprilli et al. 2006; Robbins 2006), especially in nurturing and social skills (Triebenbacher 1999; Melson 2003).

Cats also provide benefits to society as working animals, for example, on farms and as occupational therapy animals (D'Arcy 2011; Rijken et al. 2011; Hasselman 2013). Although the impact of cats on ecosystems is generally considered to be negative, cats may also have positive impacts on ecosystems. Cats can control pest species such as rodents and rabbits which, in large numbers, may cause considerable environmental damage (Bergstrom 2009).
4. **The need for cat management**

4.1. **Protection of native species and ecosystems**

One of the desired outcomes of the National Cat Management Strategy is that there is no adverse effect of cats on native species in New Zealand.

4.1.1. **The impact of cats on biodiversity**

Any cat with outdoor access may prey on wildlife (including companion cats) but their prey varies depending on their location (Gillies et al. 2003; Farnworth et al. 2013b). Predation of cats on New Zealand’s native species has been well documented, including native birds, lizards, frogs and invertebrates. Cats have been shown to have a significant negative impact on a number of rare and threatened native bat and bird species, particularly birds that rest, feed or nest on the ground or in low vegetation (Fitzgerald et al. 1985; Fitzgerald 1988; Gillies et al. 2003; Norbury et al. 2008; Gordon et al. 2010; van Heezik et al. 2010; Farnworth et al. 2013b).

International studies have also suggested that cat predation may represent a significant cause of mortality for some bird species in urban locations (Baker et al. 2005). There have been some studies that have reported that cats commonly kill sick, old and injured birds, and those that fall from nests (Møller & Erritzoe 2000, Dierschke 2003; Baker et al. 2008). As a result, it has been suggested that cat predation may represent a compensatory rather than additive form of mortality in birds, although it is acknowledged that this is likely to vary with cat and prey density, prey species and location. Also, where large numbers of birds are killed, cats would likely be killing a combination of individuals with poor and good long-term survival chances, not just those birds with poorer long-term survival chances (Baker et al. 2008). In addition, it has been proposed that, even where the predation rates in urban areas are low, the impact of cats on birds may not be correspondingly low. It is possible that sub-lethal effects of cats on birds (primarily mediated through fear) may depress bird populations enough that low predation rates simply reflect low numbers of birds (Beckerman et al. 2007). This may also be the case with other targeted species such as lizards, frogs and invertebrates.

Cats also prey on introduced species of small mammals, birds, lizards, frogs and invertebrates. These animals may have a significant negative impact on native wildlife. Cat management measures may result in increased numbers of these species and this
will often have a negative impact on native wildlife. This dynamic must be considered and addressed when planning cat management programmes (Robley 2004; Farnworth et al. 2013b).

Another consideration is that, regardless of whether the species targeted is native or non-native and the effect on wildlife numbers, there can obviously be negative welfare impacts on predated wildlife (Jessup 2004).

It is clear that effective cat management and mitigation of negative impacts of cats on native wildlife is an important component of maintaining New Zealand’s native biodiversity. This will necessitate management, particularly of feral and stray cat populations, as well as measures to mitigate the impacts of domestic cats on wildlife, in addition to vital work to reduce and mitigate the devastating human-related impacts on New Zealand’s native biodiversity and eco-systems.

4.1.2. Identification and protection of sensitive wildlife areas

Urban environments can be degraded, of low quality and, consequently, may be less able to support native species. Many sites are highly modified and fragmented with dense development and little green space. Introduced birds and mammals are prevalent in built up areas and some of these species such as rats, mice, rabbits and introduced bird species are commonly targeted by cats (Gillies et al. 2003; Farnworth et al. 2013b).

However, urban and suburban habitats may serve as an important habitat for birds and other native animals (Angold et al. 2006; Tratalos et al. 2007; Pennington et al. 2008; Seewagen and Slayton 2008; Longcore et al. 2009). In areas where vulnerable, native wildlife does persist, the presence of cats will likely exacerbate local species decline and, consequently, cat management is necessary in these areas to mitigate these negative effects. However, caution must be applied when planning predator reduction programmes as it may lead to an increase in introduced birds and mammals and resultant negative environmental and community impacts (Farnworth et al. 2013b). Any predator control programmes must be combined with control programmes for other introduced species also (Farnworth et al. 2013b).

The islands from which feral cats and other predators have been eradicated provide examples of what can be achieved when the impacts of introduced predators on native species are removed:
• Within six years of the eradication of feral cats and rats from Raoul Island, five seabird species that had become locally extinct were again breeding on the island (black-winged petrel; Kermadec petrel; wedge-tailed shearwater; sooty terns; red-tailed tropicbird). Additionally, spotless crake and the Kermadec parakeet had recolonised the island from nearby predator free islands (Bellingham et al. 2010; Veitch et al. 2011).

• Once cats were removed from Mangere Island in the Chatham Islands, Forbes parakeets and white-faced storm petrels recolonised the island (New Zealand Department of Conservation 2001; Bell et al. 2003). In addition, Chatham Island snipe were successfully reintroduced from Rangatira Island (Dowding et al. 2001).

• After cats were eradicated from Motuihe Island in the Hauraki Gulf tuatara were successfully introduced to the island (New Zealand Department of Conservation 2016).

• On Hauturu (Little Barrier Island), kokako and tieke (saddleback) were released following cat eradication on the island and have subsequently bred successfully (Bellingham et al. 2010). There was also an increase in the number of black petrels breeding on the island (Bellingham et al. 2010). However, the eradication of cats from Hauturu also highlighted the need to control other predators. Whilst the eradication of cats reduced cat predation of adult Cook’s petrels, there was an increase in predation of Cook’s petrel chicks and eggs by kiore (Polynesia or Pacific rat) (Imber et al. 2003). Cook petrel breeding success increased once kiore were eradicated from the island in 2004 (Bellingham et al. 2010).

• Following the eradication of cats and rats from Tuhua in 2000 the island has become a safe haven for threatened bird species from the mainland. North Island robins, Pateke (brown teal) and North Island brown kiwi have been released on the island and all appear to be establishing successful breeding populations (Bellingham et al. 2010). Orange Fronted Parakeets/ kākāriki were also successfully introduced during 2009/10 (New Zealand Department of Conservation 2011).

4.1.3. Containment of sensitive wildlife areas

The removal or exclusion of predators from sensitive wildlife areas is the only way to ensure the safety of vulnerable native species in that area. Ongoing management is required to reduce and/or eliminate cat numbers at low levels in such sites. For example, 479 cats have been removed from the 1700 ha Pukaha/Mt Bruce buffer area in
the northern Wairarapa since 2008 and, despite the intensive and ongoing nature of the management, the total number of cats captured continues to fluctuate between 50 to 90 cats per annum, with a total of 79 captured and humanely killed in 2014/15 (pers comm Simon Kelton, DOC, 2016).

Predator exclusion fences such as the fence surrounding Wellington’s urban sanctuary Zealandia are very expensive to build and maintain, and are restricted by land use and geography. Unfenced mainland islands such as Pukaha, which use intensive trapping and poisoning to protect the site, suffer from significant re-invasion (pers comm Simon Kelton, DOC, 2016).

4.1.4. Public education about the negative impact of cat predation on New Zealand’s biodiversity

One of the desired outcomes of the National Cat Management Strategy is that the public understand the potential impacts of cat predation on New Zealand’s unique environment.

Although the impact of feral cats on wildlife is well documented (Jochle and Jochle 1993; Patronek 1998; Clarke and Pacin 2002; Clancy et al. 2003; Woods et al. 2003) and generally accepted by the public, the predation of companion cats on wildlife is less well recognised and accepted. A recent study in New Zealand demonstrated this, finding that members of the public who were asked about the predation of both native and non-native wildlife by cats were mostly concerned about predation from feral cats, unmanaged strays and colony cats (Walker et al. 2017). Better evidence of the impacts of companion cats on native biodiversity in urban areas and the benefits of appropriate cat management to mitigate these negative impacts would be of use in designing education campaigns for cat owners. In addition to the negative impact of predation on wildlife, cats can transmit the protozoal disease toxoplasmosis to wildlife causing mortality and morbidity in native species (Howe et al. 2014).

While the prey intake of feral cats has been shown to be approximately four times that of a companion cat, cats that receive food (directly or indirectly) from humans in the urban environment hunt nonetheless (Farnworth et al. 2013b). Although not all companion cats are active hunters and hunting patterns vary considerably between cats, unrestricted, outdoor access facilitates predation of wildlife (Farnworth et al. 2013b; Loyd et al. 2013).
Sites which retain native species (such as bush, wetland or coastal remnants) are often found on urban fringes and in rural locations, these may be in close proximity to housing and development (Farnworth et al. 2013b). The identification of these sensitive wildlife areas is vital in determining where cat management will be most valuable. Organisations such as the Department of Conservation (DOC), Queen Elizabeth II Trust and local authorities all have programmes which identify and protect sites of high biodiversity (Predator Free New Zealand 2016). The Greater Wellington Regional Council Key Native Ecosystems programme manages pests and threats at high biodiversity sites across the Wellington region, many in urban areas. The growing abundance of native species in those urban areas (Landcare Research 2015) shows the benefits of local pest control. However, free-ranging companion cats make the mitigation of cat impacts on native species complex and difficult. The management of cats would complement existing pest control in these areas and greatly reduce the risk of predation for vulnerable native species. It is important that the public, particularly those people with companion cats, understand the potential impacts of companion cat predation on New Zealand’s unique environment; this should increase the likelihood of acceptance and uptake of measures designed to mitigate companion cat predation.

It is vital that conservation programmes aimed at mitigating companion cat predation of wildlife include properly designed communication campaigns to give the programmes the best chance at altering cat-owner behaviour. A recent study exploring the factors that drive cat-owner behaviour relevant to limiting domestic-cat impacts on native wildlife, reported that campaigns should use veterinarians to advocate messages to emphasise the benefits of being inside to companion cats and the positive impact on the owner (MacDonald et al. 2015). In addition, people who perceive higher risk associated with cats being outside have more negative attitudes toward cats being allowed outside (Gramza et al. 2016). For those cat owners who keep their cat outside, it was suggested that it would be more appropriate for a campaign to focus on social norms highlighting the positive actions of others bringing their cats inside (MacDonald et al. 2015). Many stakeholders would need to be involved in a conservation campaign aimed at mitigating companion cat predation of wildlife (for example, government, conservation groups, community groups, veterinarians, and animal welfare organisations). It would be important that all stakeholders involved promote accurate and consistent information. Fact sheets could be produced on the negative impacts of cats on wildlife, how to mitigate these and the benefits of cat management for the welfare of both cats and wildlife. Social media, online video servers and interactive forums could be used to further promote this information.
4.2. The impact of cats on the community and environment

One of the desired outcomes of the National Cat Management Strategy is that negative impacts of cats on the New Zealand community and environment are minimised. This can be achieved through effective and humane management of cats, in both urban and rural areas.

4.2.1. Zoonotic disease

It is important that both the potential positive and negative effects of cats on human health are recognised, understood and addressed. Although many positive influences of cats on human health are documented (detailed previously in section 3.2 under The benefits of cat ownership), cats may also present a risk to the health of people who come into contact with cats through the transmission of zoonotic diseases (diseases of animals that are naturally transmissible to man). The number of zoonoses that are endemic in New Zealand are relatively few compared to other countries and most zoonoses in New Zealand constitute minor risks to human health. However, the risks must still be acknowledged and addressed because some zoonotic diseases in New Zealand can result in serious disease. Certain groups within society are at increased risk of contracting zoonotic disease, including those who are immunocompromised, pregnant, children and the elderly.

In general, the risks of contracting zoonoses from cats are outweighed by the positive benefits of cat ownership. Therefore, emphasis should be placed on educating people about zoonotic disease risks, who is most at risk and how to reduce the risks of transmission of zoonotic disease through high standards of animal care and husbandry and management of environmental factors and good hygiene practices. In New Zealand the most common zoonoses of cats are ringworm and flea infestation.

Ringworm is a fungal skin infection frequently transmitted from animals, including cats, to humans, particularly children. Infections in humans are usually low grade and easily treated. The primary agent in cats is Microsporum canis, although Trichophyton species are also implicated. Up to 30% of cats can be asymptomatic carriers of M. canis. Cats with clinical lesions represent the greatest risk of transmission to humans. Flea infestation of cats and subsequent environmental contamination with flea larvae and eggs can result in flea bites and flea bite allergy in humans, with women and children being most commonly affected.

Humans can also be affected by mites from cats. Cheyletiella spp. are the primary agent.
Inadvertent ingestion of intestinal round worm eggs from faecal contamination of the environment by cats (particularly sand pits, gardens where children play) can result in visceral larvae migrans. This is a syndrome of organ inflammation associated with the migration of worm larvae through the body. In some cases, migration of the larvae can cause permanent loss of eye sight.

The larval stages of some hook worm species infecting cats and dogs can migrate through human skin resulting in cutaneous larva migrans, although this is extremely rare in New Zealand. Transcutaneous infection with hookworm usually causes localised irritation of the feet and, occasionally, more generalised illness.

Adequate parasite control administration to cats will eliminate or significantly reduce the risk of all of the zoonotic diseases discussed above.

Cat bites and scratches represent a health risk to humans through the inoculation of feline oral bacteria in bite wounds creating localised pain and infection. Cat bites and scratches can also result in the transmission of the bacteria, *Bartonella henselae*, which is the causative agent of cat scratch fever (or cat bite fever). This infection can result in flu-like clinical signs, including fever and lymph node swelling and, in some cases, serious disease. This is most common in young people (children and adolescents).

The protozoal disease toxoplasmosis is an important zoonotic disease associated with cats. Cats are the only definitive hosts of the protozoa, and may shed millions of infectious oocysts in their faeces in to the environment. However, this only occurs during the first 2-3 weeks after the cat is first infected or, occasionally, if an infected cat becomes immunocompromised later in life. Oocysts can persist in the environment for 18 months or longer. Infection of humans occurs through two main pathways: ingestion of oocysts directly from the environment (for example, from garden soil, sand pits and unwashed vegetables) or from tissue cysts in improperly cooked meat (this is the most common mode of human infection). In most humans, infection is mild and self-limiting but in immunocompromised people generalised infection can occur and this can result in neurological disease. Another significant human health concern is the infection of pregnant women who have had no previous exposure to the toxoplasma organism. This can lead to foetal infection and may cause abortion, still birth, or birth of children with central nervous system defects and other permanent damage. It is important to note that clinical toxoplasmosis in humans is uncommon and the risk of infection can be easily mitigated through high standards of animal care and husbandry, management of environmental factors and good hygiene practices.
There are also a number of gastrointestinal infections (for example, Giardia, Cryptosporidia, Campylobacter, Salmonella etc.) and other infectious diseases (for example, Chlamydia spp.) that can represent a zoonotic risk to those in contact with animals, including cats, or their faeces.

The risk of zoonotic disease for people in contact with cats can be minimised largely through simple husbandry and hygiene measures, and providing good health care to cats, including:

- Regular parasite control for cats (including deworming and flea control) as directed by a veterinarian.
- Good hygiene practices; particularly encouraging children to wash their hands after playing in sand pits, playgrounds, the garden or after touching cats.
- Prompt collection and disposal of cat faeces from litter trays and the environment (where possible). Pregnant women should avoid emptying cat litter trays and wear gloves when handling litter or soil.
- Sandpits and other play areas should be covered when not in use where practical.
- Veterinary advice should be sought immediately for any unwell cat.

In addition, since ingestion of toxoplasma tissue cysts in improperly cooked meat is the most common mode of human toxoplasmosis infection, people preparing and eating meat should ensure that separate utensils and cutting boards are used to prepare raw meat and other foods, that the meat is thoroughly cooked and that any utensils, cutting boards, crockery and other items that have been in contact with raw meat are thoroughly washed.

4.2.2. Nuisance behaviours

Many normal cat behaviours can be considered a nuisance by some people, including defecation and digging in gardens, fighting, noise and spraying. Occasionally cats cause nuisance by damaging property and the existence of unwanted stray cats on private property can also be a source of nuisance.

Cat predation on wildlife is another cat behaviour that causes considerable community concern. Many communities are working hard to protect native animals through the removal of predators but are frustrated as they cannot prevent predation by companion cats. This is particularly a problem during the vulnerable fledgling period of native birds.
Existing response to nuisance problem

Nuisance is the main justification used by Local Authorities to manage cats under existing Animal Bylaws. Those Local Authorities that manage cats using this justification tend to have limits on the number of cats that are allowed to be kept on a property or by an individual. The following Local Authorities have bylaws limiting cat numbers allowed to be kept on a property or by an individual in place:

- Far North District Council - limit of 5 cats
- New Plymouth District Council - limit of 5 cats
- Marlborough District Council - limit of 4 cats
- Hastings City Council - limit of 4 cats
- Buller District Council - limit of 3 cats
- Invercargill City Council - limit of 3 cats
- Masterton District Council - limit of 3 cats
- Palmerston North City Council - limit of 3 cats
- Rangitikei District Council - limit of 3 cats
- Proposed in Wellington – limit of 3 cats, possibly fewer in sensitive wildlife areas

Limiting cat numbers also allows Councils to manage people who hoard cats because the charge of ‘nuisance’ is easily justified as such a concentration of cats is a problem for the surrounding community. Animal hoarders are also a significant concern from an animal welfare perspective.

Those Local Authorities that do not manage cats have traditionally argued that the lack of complaints about cats demonstrates that the nuisance caused by cats does not warrant action. However, it is well documented that animal welfare organisations are the recipient of most complaints about cat problems, including nuisance complaints.

A survey conducted by the Wellington City Council found that 45% of respondents had been “bothered by cat behaviours, including digging and toileting in gardens and lawns, attacking and killing wildlife and other people’s pets, fighting, getting into rubbish, stealing property and producing unwanted kittens” (Wellington City Council 2016).

In order to facilitate reduction of cat nuisance to the community the person responsible for an owned cat causing nuisance must be able to be identified (for example, through microchipping +/- registration of owned cats). If the owner of the cat cannot be identified it is impossible to enforce any cat management requirements. In addition, the entity responsible for managing stray cats when they are creating a nuisance problem
must be identified. That responsibility is likely to fall to Local Authorities, just as it does for dogs.

4.3. The impact of cats on pastoral industries and the marine environment

One of the desired outcomes of the National Cat Management Strategy is that negative impacts of cats on New Zealand's pastoral industries are minimised.

The presence of cats (feral, and domestic) in New Zealand impacts on the country's pastoral industries through the transmission of disease to grazing species. The most important disease of concern in New Zealand is the protozoal infection toxoplasmosis. *Toxoplasma gondii* is one of the most successful parasitic organisms globally and is widespread throughout New Zealand. This protozoal parasite is capable of infecting all warm-blooded animals but, in New Zealand, infection is most significant in sheep and goats as it results in substantial economic and welfare impacts. The cost of toxoplasmosis to the sheep industry was estimated at approximately $18 million in 2014, just in the Hawke's Bay region of New Zealand (Walker 2014).

Toxoplasmosis can cause poor conception rates in ewes, foetal death during pregnancy, weak non-viable lambs and reduced numbers of lambs born per ewe. According to Beef and Lamb New Zealand (2016), toxoplasmosis is the second most common cause of abortion in sheep. A New Zealand monitoring programme reported that up to 30% of sheep carry toxoplasma (Cape to City 2016).

The costs of toxoplasmosis to the farming industry are incurred through:

- loss of lambs through abortion, either low level insidious losses or large scale abortion storms;
- the birth of weak non-viable lambs that fail to thrive and subsequently die;
- culling of fertile ewes that are assumed to be barren through undetected abortions; and
- the cost of vaccination of ewes to reduce the impact of the disease.

Faecal contamination of the environment by cats is the primary source of infection for pastoral species; these animals may ingest both feed and water contaminated by oocysts from cat faeces.
There are two forms of management available to prevent the impact of toxoplasmosis on New Zealand pastoral industries: prevention of the transmission of toxoplasmosis from cats (the definitive host) to farmed animals through reduction of the cat free roaming population and vaccination of sheep to reduce the impact of the disease.

There is a single dose vaccine for toxoplasmosis available in New Zealand that is recognised as an effective tool for reducing ewe abortions and foetal loss. While this continues to be an important means of addressing the impact of toxoplasmosis, it is not sufficient on its own to mitigate the risk of this disease, as even vaccinated ewes can be affected in situations of high challenge. Consequently, the reduction of cat numbers, particularly feral and stray cats, in pastoral areas is also important to lessen the impact of this disease on pastoral industries. While the removal of feral and stray cats from farming communities is a key aspect of the control of toxoplasmosis, it will not prevent the disease altogether as companion cats will continue to act as reservoirs for the disease. Therefore, education of the public, particularly those with companion cats, about this disease and their part in helping to reduce the risk of *Toxoplasma gondii* transmission by their cats is also important.

The presence of cats in New Zealand is also likely to impact on New Zealand's marine environment due to *Toxoplasma gondii* transmission. *Toxoplasma gondii* infection is known to be a cause of mortality in the critically endangered Hector’s dolphins (*Cephalorhynchus hectori*) (Roe et al. 2013). *Toxoplasma gondii* infection has also been suggested as a potential factor influencing reproductive failure in New Zealand sea lions, although it is not thought to be a major contributor to poor reproductive success (Michael et al. 2016). In addition, *Toxoplasma gondii* has been found in shellfish (Putignani et al. 2011) but the significance is not yet clear.

5. **Humane cat management**

5.1. **Legislative, regulatory and educative framework to support cat management**

One of the strategic goals of the National Cat Management Strategy is to support humane and effective cat management through an appropriate legislative, regulatory and
educative framework. In addition, one of the desired outcomes of the National Cat Management Strategy is that cat owners understand their legal obligations.

5.1.1. Existing legislative, regulatory and educative framework relating to cat management in New Zealand

The Animal Welfare Act 1999 is the main piece of legislation relating to the welfare of animals in New Zealand. It establishes the fundamental obligations relating to the care of animals. These duty of care obligations are written in general terms with more details being found in the codes of welfare. Under this Act, owners and persons in charge of animals are required to meet the physical, health and behavioural needs of the animals in their care in accordance with good practice and scientific knowledge.

However, The Act does not expand on these obligations; for example, it does not detail what constitutes an appropriate amount of food or water for any particular species. To include this information in the Act would make it a very lengthy and unwieldy document. Therefore, codes of welfare are produced for either a particular species, or particular function, (e.g. animals used in entertainment). The relevant code of welfare for cats is the Animal Welfare (Companion Cats) Code of Welfare (New Zealand Government 2007).

The current key pieces of legislation relating to cats and cat management in New Zealand has been listed with links to the full documents in Table 2. In addition, the pertinent sections of each of the pieces of legislation relevant to cat management have been compiled for reference in Appendix 1 of this document. The New Zealand Council Bylaws pertaining to cats are summarised in Appendix 2 and examples of cat control legislation from other countries are given in Appendix 3.

**Table 2: Key legislation relating to cats and cat management in New Zealand**

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<tr>
<th>Legislation</th>
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5.1.2. Creating an appropriate legislative and regulatory framework to enable humane cat management

An appropriate legislative and regulatory framework is an important component of humane and effective cat management. This framework must include:

- Measures to protect the welfare of cats (particularly where lethal management methods are used)
- Measures to ensure the humane treatment of cats (particularly where lethal management methods are used)
- Measures to mandate responsible cat ownership and caretaking

There are many potential policies that could be included in a legislative and regulatory framework with the goal of improving cat management but not all will be equally effective. Each potential policy needs careful evaluation to assess its possible benefit to cat management, its humaneness, its cost effectiveness and its potential for implementation, and enforcement.
5.2. Approaches to effective cat management

5.2.1. Stakeholders

It is essential to identify and have an understanding of all key stakeholders in order to devise effective cat management strategies. Stakeholders in the complex area of cat management include (but are not limited to): cat owners, cat carers, veterinarians, local and central government, animal welfare and rescue organisations, animal control organisations, the farming community, conservation groups and the general community. An understanding of the different stakeholders and their relationships with and concerns regarding cats is essential to achieve stakeholder engagement in initiatives to effectively address the unwanted cat problem; this is, in turn, vital to the success of cat management programmes.

5.2.2. Cat population categories

Cats are generally categorised into populations based on the cat's interactions with and dependence on humans (please refer to the Introduction for more details). However, not all cats will be perceived as owned by the people caring for them. Managed stray cats (or semi-owned cats) are cats cared for by people who do not perceive ownership for the cat. The distinction between 'owned' companion cats and managed stray (semi-owned) cats is a key component in the deciding what initiatives are appropriate to individual cat management situations.

5.2.3. Managing feral cats

One of the desired outcomes of the National Cat Management Strategy is that there are no feral cats in New Zealand. This is linked to the desired outcome that there is no adverse effect of cats on native species in New Zealand. It is acknowledged that this will be challenging to achieve, if it is even possible, but that it is an important goal to strive towards.

A feral cat lives in the wild and has none of its needs provided for by humans. Feral cats can be found in most terrestrial habitats from sea level to alpine areas but generally do not live around centres of human habitation (Gillies et al. 2005; Webb 2008; Alberthsen 2014). Feral cats are distributed throughout all the main islands of New Zealand and are also present on a number of outlying islands. The feral cat population is largely independent of human influence and is self-sustaining. Densities of feral cats vary
 Evidence indicates that feral cats are generalist predators (Farnworth et al. 2013b) and, while field studies have shown that feral cats predominantly prey on rats and rabbits (Gillies et al. 2005), they may also prey upon native bats, birds, reptiles, insects and amphibians (Farnworth et al. 2013b). New Zealand’s native species are poorly adapted to respond to predation by cats, as they evolved in the absence of mammalian predators. Consequently, even low numbers of feral cats can have a significant impact on native species (Farnworth et al. 2011).

Feral cat control to protect New Zealand’s native species falls under two broad categories:

a) Sustained control as is part of wider predator control programmes (mustelids, possums, hedgehogs and rodents): At sites where this kind of control is necessary, feral cat control occurs on an annual basis as there is an ongoing problem with reinvasion by feral cats living outside the area. Examples of sustained feral cat control operations include kiwi protection in Northland, shore bird protection at breeding sites (for example, on the Chatham Islands), and Otago and Grand skink protection (for example, in Otago).

b) Specific eradication of feral cats from offshore islands and fenced sanctuaries:
Examples include the eradication of feral cats from Raoul Island, Rangitoto & Motutapu Islands and Little Barrier Island (Campbell et al. 2011) and from the Zealandia and Maungatautari fenced sanctuaries (Burns et al. 2012).

Eradication of feral cats from offshore islands and fenced sanctuaries has allowed the re-introduction of native birds that would otherwise be unable to survive in these areas.

The techniques used to control feral cats in both situations are similar, but in an eradication programme the control efforts undertaken are more intensive. Adequate high level resourcing and financing is vital for any successful intensive predator management programme.

Where cats must be controlled through lethal means, it is of great importance that cats are treated and killed humanely and that the strategies used are effective and generally accepted. Although viewed as a pest species, feral cats are covered by the same declaration of sentience under the Animal Welfare Act 1999 as companion cats. There are also offences of wilful and reckless ill-treatment of wild animals or animals in a wild state under the Act that could be applied if a feral cat is treated inhumanely.
Techniques used to control feral cats

The control techniques that are currently used to control feral cats in New Zealand are poisoning, trapping and shooting. The relative humaneness, effectiveness and practicality of all methods of feral cat control should be considered using the most current science and guidelines available to ensure the use of best practice methodology. A brief explanation of each currently utilised technique is given below but the reader is advised to refer to detailed and up to date information, such as that produced and regularly updated by the Department of Conservation (DOC 2011 a,b,c; DOC 2016), the National Pest Control Agencies and Pest Smart (National Pest Control Agencies 2015a,b,c,d; Australian Government 2016).

1) Poisoning

This control technique involves placing poison bait on the ground or in a bait station. It can be used for all feral cat densities and in all types of habitat. The use of poisons to control cats is strictly regulated in New Zealand. Currently there are two poisons (Vertebrate Toxic Agents) registered for use in the control of feral cats in New Zealand: sodium fluoroacetate (1080) and para-aminopropiophenone/4-aminopropiophenone (PAPP).

2) Trapping

Trapping involves capturing a feral cat in some sort of device. Trap types include kill traps and live-capture traps (such as leg-hold and cage traps). Trap use in New Zealand is regulated by the Animal Welfare Act 1999 (New Zealand Government 1999). The Act sets specific requirements for the sale and use of traps and devices. For example, traps intended to capture animals alive must be inspected within 12 hours of setting, every day they remain set, and beginning the day after they are first set. Traps are not required to be approved under the Animal Welfare Act. Any trap could be developed and sold until the point that it is regulated against (if required) – examples of such regulation are the Animal Welfare (Leg-hold Traps) Order 2009 and the Animal Welfare (Glueboard Traps) Order 2009. Cats found in traps must be removed, tended to appropriately, or killed humanely as soon as they are discovered.

In determining the method of killing cats that have been caught in a trap but not killed, it is a requirement to avoid unreasonable or unnecessary pain or distress. The method used should cause irreversible loss of consciousness and death as quickly and painlessly
as possible. The choice of method depends on the confidence and skill of the operator, the species and age of the animal, the situation, and whether the method can be applied properly in the situation.

The Department of Conservation (DOC 2011a, b, 2016) and National Pest Control Agencies (NPCA) (NPCA 2015) recommend a blow to the head with a solid object or a head shot with a firearm. NPCA also suggest using a captive bolt tool but the practicality of this technique has been questioned. Killing by a veterinarian is also an option. There are animal welfare and human safety risks with any of these options. In all cases, death should be confirmed afterwards and, if there is any doubt that the animal is dead, all methods should be followed by a secondary method, e.g. a throat cut to ensure that the animal dies from blood loss while remaining unconscious. Death can be confirmed by touching the eye to check for a corneal reflex.

Drowning is never an acceptable kill method.

The Animal Welfare Act 1999 gives the National Animal Welfare Advisory Committee (NAWAC) a role in outlining and promoting best practice in the hunting and killing of wild animals (including pests). NAWAC can also recommend the issue of regulations to restrict or prohibit certain traps or devices on animal welfare grounds. NAWAC has developed a guideline for assessing the animal welfare impacts of traps (National Animal Welfare Advisory Committee, New Zealand 2011).

**a) Kill traps**

There are a number of different kill traps available for feral cat control in New Zealand. The cat is enticed into these traps by a bait of some sort; the trap is then triggered when the cat touches the bait. Once triggered, the trap kills the cat without any need for a person to be involved. To help individuals and organisations undertaking feral cat control with kill traps the National Pest Control Agencies (NPCA) have produced best practice guidelines for the use of kill traps (National Pest Control Agencies 2015a). These guidelines (National Pest Control Agencies 2015a) include a section on the welfare of trapped animals that gives practical guidance to people using kill traps.

**b) Leg-hold traps**

These traps catch the cat by its leg and hold it until the cat is killed by the person operating the trap. For a leg-hold trap to be effective, it must catch and restrain the cat effectively while minimising injuries. The use of leg-hold traps is restricted through the

To help individuals and organisations undertaking feral cat control using this technique, the National Pest Control Agencies (NPCA) have produced best practice guidelines for the use of leg-hold traps (National Pest Control Agencies 2015b).

c) Cage traps

When using this technique, a feral cat is lured into a cage using a bait. Once the cat has entered the cage, the cat must touch the bait or step on a treadle to close the door of the cage behind it. The animal remains in the cage until the person operating the trap returns and either releases or kills the animal.

3) Shooting

As a stand-alone technique shooting is usually ineffective because feral cats are difficult to locate and shoot. The shooting of feral cats tends to be either opportunistic (during the day time) or by spotlighting (at night time). Shooting is usually used as a supplementary technique to trapping, primarily to target specific trap-shy animals.

Summary of feral cat management

Despite the consideration of feral cats as pests, it is vital that: feral cat control techniques are assessed using a humaneness model; that only the most humane and effective methods of cat control are used; that best practice is ensured through the development and use of Codes of Practice and Standard Operating Procedures; and that adherence to the Animal Welfare Act 1999 is mandated and enforced. There is an urgent and vital need for research and development of more humane control methods for feral cats. Allocation of resources, coordination and priority setting to support fundamental ongoing research to inform humane cat management strategies should be made a national priority.

5.2.4. Managing domestic cats

Currently there is no national strategy for cat management in New Zealand (Farnworth et al. 2013b). In order to be effective, any management strategy for cats needs to include management of domestic cat populations as well as feral cat populations. The domestic cat population includes stray cats and companion cats.
Evaluation of cat management strategies is essential in order to determine their effectiveness. Potential evaluation measures for strategies to manage domestic cats are summarised at the end of this section in Table 3.

**Managing stray cats**

One of the desired outcomes of the National Cat Management Strategy is that there are no stray cats in New Zealand. This is linked to the desired outcome that there is no adverse effect of cats on native species in New Zealand. It is acknowledged that this will be challenging to achieve, if it is even possible, but that it is an important goal to strive towards.

Stray cats live in and around human habitation but have no identifiable owner. A proportion of these cats are likely to have been previously owned (but strayed or were lost) or may have been originally unwanted kittens of owned or stray cats (Casey et al. 2009; Marston et al. 2009). Stray cats often depend on resources supplied indirectly and unintentionally by humans (Aguilar et al. 2012; Finkler et al. 2012; Alberthsen 2014).

Stray cats* include:

- Socialised stray cats (managed and unmanaged)
- Unsocialised stray cats (managed and unmanaged)

*For full details of the cat groups making up the stray cat population please refer to the Introduction.

Stray cats make up a significant proportion of unwanted cats in urban areas and entering animal shelters (Marston et al. 2009; Alberthsen 2014; Zito 2015).

Although the Animal Welfare (Companion Cats) Code of Welfare makes only limited mention of stray cats, all cats are recognised as being sentient under the Animal Welfare Act 1999; the Act is designed to protect the welfare of animals and prevent ill-treatment. The Act mandates how all animals are treated in New Zealand, including stray cats. There is a statutory seven day holding period for stray cats that must be enacted by an appropriate delegated authority for stray cats as required by the Animal Welfare Act 1999 (for example, the SPCA). This can pose a significant welfare issue for unsocialised stray cats as they may become extremely stressed when confined in an animal shelter or pound. However, if there are immediate health and/or welfare issues for the cat, and/or unsocialised and/or aggressive behaviour, which would make treatment or care unreasonably stressful for the cat and dangerous for personnel, cats may be humanely
killed before the statutory seven day holding period is finished (New Zealand Government 1999; New Zealand Veterinary Association 2016).

There are only limited methods that can be used to reduce stray cat populations. These fall into three categories:

- Limiting the flow or contribution of cats from the owned and feral cat populations to the stray cat population
- Reducing the number of stray cats through removal of cats (by non-lethal or lethal methods)
- Reducing the number of stray cats by controlling reproduction of stray cats

Limiting access to food resources (intentionally provided food and unintentionally provided food such as rubbish) will also assist in the control of stray cat populations.

_Limiting flow of cats into the stray cat population_

Although there is no known published evidence of feral cats contributing to the stray cat population, this is theoretically possible through reproduction with entire stray cats. However, this is only conceivable in peri-urban and rural areas where stray cats exist near bush or wilderness areas in which feral cats may live. Significantly reducing or eliminating this potential contribution can likely only be achieved through greatly reducing the numbers of feral cats or removing feral cats entirely. Control methods and management strategies for feral cats are described in detail elsewhere (Denny et al. 2010; Sharp et al. 2012; Commonwealth of Australia 2015 a,b; Biosecurity Tasmania 2016) but a summary and assessment is provided for this report in the previous section (Control of feral cats).

Limiting the flow of companion cats into the stray cat population involves preventing reproduction, supporting long-term responsible care of cats, reducing cat abandonment, and preventing cats roaming and subsequently straying and becoming lost. These topics are addressed later in this paper (further detail can be found in: Managing companion (owned) cats).
**Reducing the number of stray cats**

**Permanent removal of cats from the stray cat population**

*Adoption*

An adoption programme for stray cats will involve removing the cats from the stray population by either trapping them (trap and remove) or capturing them without a trap (usually for more social cats) and then finding permanent homes for them through an adoption programme. However, there is a limited capacity to absorb stray cats into the companion cat population, particularly as there is already an oversupply of surrendered companion cats needing adoption and also easily obtained cheap or free cats from other sources. The situation is compounded by the higher cost of buying desexed kittens/cats while undesexed kittens can be obtained very cheaply and easily. Animal shelters generally desex cats prior to rehoming as a matter of policy in an effort to limit cat numbers but some private rescue groups, and many council pounds, rehome un-desexed cats, which can contribute to cat overpopulation.

Nonetheless, animal welfare organisations can increase adoptions of cats, including stray cats, through measures such as: creative marketing and advertising campaigns; off-site adoption centres; adoption drives; and improving the accessibility and attractiveness of adoption centres (Fournier 2004; Marsh 2010; Lord et al. 2014; Zito et al. 2015a).

A proportion of stray cats will not be of suitable temperament or socialisation status for rehoming to ‘normal’ domestic homes (Levy, 2012; Hurley and Levy, 2013) and alternative rehoming routes (for example, barn or farm cat placements) or other options (for example, managed targeted trap-neuter-return programmes) should be explored for these cats.

There is currently no data available on adoption of stray cats that is differentiated into cat population categories (socialised, unsocialised, managed and unmanaged). Therefore, there is currently no specific data on adoption of semi-owned cats as this category of cats has not been differentiated from unowned cats. This also means that data on the adoption of unowned cats are inaccurate, as these data will include some semi-owned cats. This data would be useful in terms of pathway planning for individual cats, understanding the cat populations contributing to shelter intakes and, consequently, devising effective strategies to reduce intake.
Implications for cat management

Shelter and pound statistics on stray cats should be categorised into socialised, unsocialised, managed and unmanaged cat population categories to assist in cat management planning.

Despite the range of strategies used by welfare organisations to increase adoptions of cats, the available information shows large numbers of cats that are categorised as ‘stray’ still being euthanased in shelters. This indicates that strategies to increase adoption of semi-owned and unowned cats alone are not sufficient to have a significant positive impact on the outcome for many stray cats. However, widespread availability of low cost adoption of desexed kittens/cats from all welfare/rescue groups could help address problems associated with the wide availability of undesexed kittens that can be obtained very cheaply and easily. Offering low cost adoption of desexed kittens/cats from all welfare/rescue groups would mean a more level playing field between welfare/rescue groups and other sources of kittens/cats and would result in fewer entire cats and, consequently, fewer unplanned litters of kittens.

Cat sanctuaries

Cat sanctuaries provide long term homes for stray cats in a confined area. These facilities are extremely expensive to build and maintain (Loyd and Hernandez 2012) and tend to fill up very quickly; they can only care for a relatively small number of animals for an extensive period of time. Although there are some cat sanctuaries that provide a high level of care to their cats and a valuable service to the community, many sanctuaries are forced to close their doors every year due to insufficient funds, disease outbreaks or an inability to properly care for the cats in the existing confined space. Additionally, if the external cat overpopulation problem is not addressed the cat population remaining outside the sanctuary will continue to grow.

Sanctuaries, and other long-term animal sheltering facilities, generally result in poor animal welfare. The confinement, and large number of cats in small rooms or areas, cause physical and psychological stress to the animals and put them at high risk of disease.

Care-for-life sanctuaries are recognised as the most expensive and least efficient method of population management. Most sanctuary programmes that permanently house a large number of cats also have an active TNR programme because the sanctuaries are always filled to capacity (Levy et al. 2004).
Implications for cat management

Placing cats in sanctuaries for long periods is not in the best interests of the cats, nor is this approach helpful in addressing cat overpopulation. In general, cat sanctuaries are neither a viable nor humane cat management tool. The money spent to house a few hundred cats could be used for more effective programmes. Cat sanctuaries may be of limited use in some specific situations.

Trapping programmes

There are two potential outcomes for cats that are trapped and permanently removed from the population: a live outcome where cats are rehomed through adoption (called ‘trap and remove’ in this document; see above), or a lethal outcome where trapped cats are killed (called ‘trap and kill’ in this document).

Trapping and subsequent humane killing is generally considered to be a relatively humane method of controlling cat populations compared to other lethal methods. However, the ethics of this approach are nonetheless questionable and controversial. Despite being considered more humane than other methods of killing cats such as poisoning, even the use of humane traps cannot fully alleviate the significant welfare risks associated with trapping cats. Welfare outcomes are affected by a range of factors including the type of trap used, positioning of a trap with regard to environmental exposure, frequency of checking, potential for injury during escape attempts and distress caused by containment (Robertson 2007). Any trapping should be undertaken in compliance with an agreed code of practice and standard operating procedures. Trap and kill also has minimal impact on non-target species and poses less danger to humans and pets than other lethal methods (Palmer, 2014).

Ideally, all domestic cat-trapping programmes should comply with a welfare code of practice and procedures to ensure humane measures are undertaken. The National Pest Control Agencies (2015c) have published guidelines for monitoring and control of feral and stray cat trapping. However, these are simply best practice guidelines and are not mandatory or enforceable. The National Pest Control Agencies (2015d) have also published a user guide to legislation relating to terrestrial pest control that summarises legislation that is directly related to pest control activities; this is to assist contractors and control agencies’ staff understand their statutory responsibilities. In contrast to the situation in New Zealand, in Australia some councils require that trapping is only to be done by authorised officers who will set up, monitor and remove trapped cats (usually
individual cats that are causing a nuisance) to a local cat management facility, as occurs in Western Australia (RSPCA Australia 2017). There are benefits in adopting a similar approach to achieve consistency and minimise welfare risks associated with trapping. This in turn may help gain greater community acceptance for trapping programmes. It is also vitally important that there is an ongoing commitment to continuously refine existing methods and identify new methods to improve humaneness for trapping of cats.

The current system of trap and kill results in minimal overall reduction in cat numbers, due to the very small percentage of cats actually affected by these programs, and the limited capacity of shelters and pounds to remove unwanted cats (Hatley 2003; Levy 2012; Levy et al. 2013). Recent research from Australia found that low-level culling of feral cats led not to a population decrease, but an increase in cat numbers (Lazenby et al. 2015). This information raises important considerations about traditional trap and kill efforts (typically triggered by nuisance complaints) undertaken by animal control agencies or through animal welfare organisations, when members of the public trap and bring unowned cats into animal shelters. These isolated and indiscriminate efforts are effectively low-level culling and, as currently practiced, are unlikely to result in any significant long-term improvement for issues of concern, such as wildlife predation, spread of disease, public health, or cat welfare. Computer-based modelling has consistently predicted failure of lethal control methods to eliminate cat populations unless high removal rates are achieved consistently and for long periods; these conditions are considered unrealistic in urban areas (Andersen et al. 2004; Foley et al. 2005; Budke and Slater 2009; Schmidt et al. 2009; McCarthy et al. 2013). One simulation model estimated that over 82% of cats in a population of 200 cats would need to be removed to result in elimination of the population over 4,000 days (McCarthy et al. 2013). Other estimates for effective removal rates range from over 50% of the female population (Andersen et al. 2004) or 55-60% in the absence of immigration (Nutter 2005) but this is unrealistic as immigration will always occur. In order to achieve significant cat population decline and resultant decrease in wildlife predation, an intensive and large-scale culling programme that killed a high proportion of the cat population and was maintained over a long period of time would be necessary. Models have predicted that colonies can be kept small by very high-level culling every one or two years, but that this will not lead to long-term reduction in the numbers of cats as colonies will re-establish due to immigration (Nutter 2005).

It is important that the socio-political and practical implications of a trap and kill programme be taken into account when considering if this is a viable option for urban
and peri-urban cat management (Hatley, 2003). It would not be possible to ensure that unconfined, owned cats and semi-owned cats would be unaffected by such a programme (Robertson 2007). Furthermore, many members of the community are opposed to lethal cat control programs, particularly in urban areas (Ash 2001; Robertson 2007; Marston et al. 2008; Wilken 2012; Hurley 2013; Levy et al. 2013; Paterson 2014; Walker et al. 2017) and non-lethal cat control measures, or even inaction, are more often accepted (Loyd and DeVore 2010; Medina et al. 2016; Liordosa et al. 2017; Walker et al. 2017). Consequently, it is unlikely that implementation of intensive, high level and large-scale culling would be accepted in most urban areas. Indeed, such programmes can meet with fierce opposition, protests and even sabotage attempts in some cases (Sterba 2002; Nealy-Brown 2002; Hatley 2003; Nogales et al. 2013; Parkes et al. 2014).

If an intensive and large-scale culling programme was considered, a pervasive, intense and continuing campaign to educate the public about the impacts of cats on wildlife and human health and the resulting need for culling would be necessary (Proulx 1988; Medina et al. 2016). The public education campaign would need to be planned and implemented well before any culling operation commenced and would likely need to include public service announcements on television, radio, social media and in newspapers, and education in schools. It can be difficult to develop effective communication programs; it is necessary to begin the development process with a clear understanding of target audiences, including their attitudes and beliefs (Jacobson 2009; Fishbein and Ajzen, 2010). Changing public attitudes takes time and the ideas need to be continually put before the public. In addition, local government programmes aimed at reducing immigration of cats into the unowned population would need to be strictly enforced (Hatley 2003). However, cat control, and particularly the lethal control of cats in urban areas, has never been popular with federal, state or local government. Previous efforts to address cat overpopulation issues have been poorly funded and have rarely received ongoing support.

Another important component contributing to the potential success of a lethal cat removal programme is to eliminate the source of food on which cats rely. If this is not done, then immigration into the area to utilise the source of food reduces the likelihood that the programme will be successful (Winter 2004).

Some trapping programmes include rehoming of suitable cats on a small scale where possible (e.g. individual trapping of nuisance cats) but this may be problematic on a large scale due to extra resources required unless local community support was available (RSPCA Australia 2017).
The research demonstrates that trap and kill programmes are far from simple to implement effectively and would involve significant investments of resources to have any chance of success. The effort required to eradicate cats from even geographically isolated islands with intensive lethal control methods including trapping, shooting and poisoning is very high. It has been reported that the mean effort to eradicate feral cats from six large islands was $543 \pm 341$ person-days per 1000 ha of island over $5.2 \pm 1.6$ years (Parkes et al. 2014).

Trapping activities in peri-urban and urban areas need to be considered carefully due to the difficulty in implementing a programme that would be able to remove sufficient numbers of cats, and the evidence that less than optimum removal rates may actually increase cat numbers (Lazenby et al. 2015). In addition, eradication methods would need to be continually applied as there would be immigration and introduction of new cats into the population, through abandonment and new litters from remaining cats (Hatley 2015).

**Implications for cat management**

The current system of indiscriminate trapping and killing of stray cats in urban areas is unlikely to result in any significant long term improvement for issues of concern, such as wildlife predation, spread of disease, public health or cat welfare. Lethal control methods only have the potential to eliminate cat populations if high removal rates are achieved consistently and for long periods; this is considered unrealistic in urban areas due to: community opposition; potential for owned cats to be mistakenly caught and killed; and other difficulties in implementation such as lack of sufficient and sustained resources.

If trap and kill programmes cannot be effectively introduced due to the problems described above, then they are unlikely to be successful in reducing the number and impact of cats. As a result, the future management of unwanted cats in urban areas may be best served by concentrating on non-lethal control methods if these can be more effectively implemented.
Controlling reproduction of stray cats

Desexing options

Surgical ovariohysterectomy (or ovarietomy) and castration remain the mainstay and gold standard for inducing permanent sterility in cats in order to manage the cat population and also have other health and behavioural benefits (Murray et al. 2008). Recently vasectomy/hysterectomy has been assessed as a theoretical alternative to castration/ovariohysterectomy (McCarthy et al. 2013) but there is not yet adequate field evidence to support the use of vasectomy/hysterectomy alone. Additionally, there are cat welfare concerns, as cats that have undergone vasectomy/hysterectomy are still hormonally intact and, consequently, are more likely to fight and roam; this results in injury, disappearance and/or death. Entire cats are also more prone to display the nuisance behaviours that can result in cat impoundment and euthanasia.

The development of a successful, safe, low-cost, single-dose, lifelong, non-surgical sterilant that is effective for cats of both sexes and is amenable to delivery in a field setting would revolutionise cat population management. There have been many advances in this area over the last ten years and there is active research continuing into potential methods including immunocontraception with a single-administration vaccine against gonadotropin releasing hormone (GnRH), long-term therapy with GnRH agonists administered in controlled-release devices, targeting cells in the brain or gonads with cytotoxins, gene therapy which leads to protein expression that suppresses reproduction and gene silencing of peptides essential to reproduction (Johnston et al. 2015).

Recently geographic information systems (GIS) have been used to identify specific areas that are making disproportionate contributions of kittens to shelter intakes (Reading et al. 2014), and areas where there are high concentrations of stray cats (Aguilar et al. 2012) and unmanaged cat colonies (Aguilar et al. 2013). These areas can then be made the focus of targeted desexing and education campaigns (Aguilar et al. 2012; Reading et al. 2014) and used to assess the efficacy of implemented programmes (Reading et al. 2014).

Trap neuter and return (TNR) programs

Trap neuter return (TNR) programmes involve trapping, desexing and vaccinating stray cats and then returning these cats to where they are living. As part of TNR programmes
young kittens and friendly adults are often removed and placed for adoption if homes are available. TNR is an alternative, non-lethal, option for stray cats that are otherwise usually killed because they are poorly socialised to people and/or there are not enough homes available to rehome them. TNR programmes are used as an alternative to lethal cat management programmes in some developed countries. TNR is considered to be a humane method for cat population management by many organisations (Levy et al. 2003a; RSPCA UK 2014; AVMA 2017; BC SPCA 2017).

Indicators that have been used to assess the success of TNR programmes include:

- Decrease in cat colony size
- Reduction in nuisance complaints relating to the cats
- Reduction in stray cat intakes into local animal shelters and animal control facilities

Using these measures, there are variable reports of the success of TNR as a cat management tool (Jones and Downs 2011; Levy et al. 2014; Slater 2015; Kilgour et al. 2016). Some studied cat colonies managed with TNR have declined in numbers (Levy et al. 2003a; Natoli et al. 2006) but other studies report an increase in cat numbers over time (Castillo 2003; Gunther et al. 2011); an increase in population is particularly evident when there are high rates of immigration into the colony from strays or abandoned owned cats (McCarthy et al. 2013; Miller et al. 2014). In many places legislation is already in place to discourage abandonment, but enforcement is difficult to achieve (Robertson 2007).

It has been suggested from the use of population modelling that 75-80% of adult breeding cats in a colony need to be desexed to result in a decrease in the cat population (Foley et al. 2005; McCarthy et al. 2013; Miller et al. 2014). However, the percentage of cats that need to be desexed to result in population reduction will depend on many factors including the mean lifespan of cats in the colony, migration rates, population density, urbanisation, climate, availability of resources and other environmental factors (Schmidt et al. 2009; Miller et al. 2014; Boone 2015; Kilgour et al. 2016).

The majority of published studies on TNR are from the USA (Centonze et al. 2002; Levy et al. 2003a; Levy et al. 2004; Stoskopf et al. 2004; Weiss et al. 2013) and all are overseas (Natoli et al. 2006; Finkler et al. 2011a; Kilgour et al. 2016; Tan et al. 2017).

An increasing body of evidence suggests that long-term TNR programmes can effectively reduce free-roaming cat populations, especially those programmes that include an
adoption program, monitoring, and desexing of new cats arriving into the colony (Hughes and Slater 2002; Levy et al. 2003a; Stoskopf and Nutter 2004; Kilgour et al. 2016). In addition, TNR programmes have potential benefits beyond just reducing cat numbers; these include the potential to improve cat health and to reduce cat-related conflict with the local community due to the reduction in cat nuisance behaviours (e.g. aggression) in desexed animals, such as aggression (Finkler and Terkel 2010; Gunther et al 2016; Kilgour et al. 2016). Some authors have also suggested that maintaining a small number of desexed cats in a community is beneficial in terms of controlling rats and mice (Kilgour et al. 2016), as rats and mice have been shown to represent a high proportion of urban cat prey in those countries where this has been documented (Barratt 1997; Tschanz et al. 2010).

The factors that affect the potential efficacy of TNR (for example, the immigration rate and environment) vary considerably between different areas and countries (Kilgour et al. 2017). It is also important to note that the definition of ‘success’ of a cat management programme is likely to differ for welfare organisations, conservation biologists, local government and policy makers (Longcore et al. 2009) and this creates controversy (Dauphine and Cooper 2009; Kilgour et al. 2017). For welfare organisations and cat advocates, success is likely measured in terms of: improved cat health and welfare; a stable or reducing population; and reduced admissions and euthanasia of unowned cats in animal shelters (Neville 1983; Zaunbrecher & Smith 1993; Longcore et al. 2009). For conservation biologists, complete and rapid extinction of a cat colony and reduction or elimination of cat predation on wildlife is likely to be the measure of success (Jessup 2004; Nogales et al. 2004; Longcore et al. 2009). For local government and policy makers success will most likely be measured by reduction of nuisance complaints and conflicts involving cats, improved public opinion and reduced cat management costs. It is important to note that no assessments of success of TNR programmes based on the impact of cats on wildlife have been reported.

The following are examples from the literature of TNR programmes reported as successful:

- A university campus in Texas, USA, implemented a TNR programme to manage their cat population; this included a concurrent adoption programme for suitable cats and kittens. The numbers of cats and kittens, and the number of cat complaints received by the university’s pest control service, were found to have decreased over the two-year study period. The surgical costs of the programme (discounted by 50% by the
Veterinary Teaching Hospital) were approximately $9,800 USD (Hughes and Slater 2002).

- In Florida, USA, a TNR programme on a university campus was monitored over an 11-year period. The cat population decreased by 66% over that time and no kittens were born on site after the fourth year of the program. There was some immigration of cats into the colony (strays and abandoned cats) but the new cats were desexed or adopted before they could reproduce (Levy et al. 2003a). This TNR programme included an adoption component and 47% of cats were removed for adoption during the study period (Levy et al. 2003).

- Another US study of six cat colonies in which TNR programmes were introduced found that all of the colonies stabilised and had population declines compared with control colonies in which the cats were not desexed. There was a mean population decline in the TNR colonies of 36% during the first two years of study and the populations continued to decline after the two-year study period. In contrast, the three control colonies had a mean increase in population of 47% over the same period (Stoskopf and Nutter 2004). Seven year follow up on these same colonies found that the TNR colonies were stable in composition and declining in size while non-TNR control colonies increased in size and had high turnover of cats. There was consistent low level immigration into both TNR and control colonies. One of the TNR colonies became extinct after 31 months of follow-up, and the other colonies reduced to five or less cats in the seven years of follow-up. The researchers concluded that TNR is an effective strategy that provides a viable option for feral cat management (Nutter 2005).

- A well-established long-term TNR programme that involved 103 cat colonies in Rome, Italy, saw an overall decrease in cat numbers (from 1655 to 1293), over the two to six-year study period. In 55 colonies the number of cats decreased, in 20 it remained stable and the number of cats increased in 28 colonies. Large colonies tended to decrease in size while smaller colonies increased in size. The overall number of cats/colony decreased over the study period from a median of 12 (range 4-50) to a median of 10 (range 2-40). Cat colonies that had been subjected to TNR over a longer period (three, four, five or six years) decreased in size (by 16, 29, 28 and 32% respectively) whereas those colonies that had been subjected to TNR for two years or less increased in size (13%). So the success of these programs was mixed and seemingly influenced by a number of difference factors, including constant abandonment of cats into the colonies keeping the numbers relatively high despite 86% of the original number of cats being neutered over the six years.
Therefore, the authors concluded that TNR can result in decreases in total cat numbers but that it is important to combine TNR programmes with effective methods to reduce abandonment of cats; addition of cats into the colonies due to abandonment contributes to cat numbers in the colonies and reduces the efficacy of TNR programmes (Natoli et al. 2006).

- Another TNR programme in Florida, USA, desexed approximately 54% of the cat population in the targeted area over the two-year study period. In addition, the programme involved adoption of socialised cats and nuisance resolution counselling for residents. The study compared per capita shelter intake and euthanasia in the target and a non-target area. Compared to the target area, the per capita shelter intake was 3.5-fold higher and per capita shelter euthanasia was 17.5-fold higher in the non-target area. Shelter cat intake from the target area decreased by 66% compared to a decrease of 12% in the non-target area. It was concluded that high impact TNR combined with the adoption of suitable cats and nuisance resolution counselling for residents is an effective strategy to reduce shelter cat intake. In addition, only 0.5% of cats admitted to the TNR clinic in the study needed to be euthanased due to health issues and only 0.3% cats died peri-operatively (Levy et al. 2014).

- In San Jose, USA, a TNR programme was implemented in 2010. Over four years 10,080 cats were desexed, the number of cats and kittens impounded decreased by 29.1% and euthanasia in the animal shelter decreased from 47% to 23%. In addition, the euthanasia of cats in the shelter due to upper respiratory disease decreased by 99% and the number of dead cats picked up off the streets decreased by 20%. Over the four years of the study no other laws or programme changes were implemented in San Jose and the number of dogs impounded did not similarly decline. This suggests that it was the TNR programme for cats that was the driver for the positive changes in cat admissions and euthanasias (Johnson and Cicirelli 2014).

- A recent study in Australia used an anonymous questionnaire to gather data about TNR activities in that country. In many Australian jurisdictions TNR is considered illegal and this may have contributed to the small numbers in the study (53 participants) and the results need to be interpreted with caution. It was reported that the cats were fed once or twice daily, provided with some prophylactic health care, 69% of the cats in the colonies were desexed, and the median colony size decreased from 11.5 cats to 6.5 cats over 2.2 years. The TNR programmes were most commonly financed through private sources, with some funding provided by animal welfare organisations (Tan et al. 2017).
A TNR pilot study was performed in the Auckland suburb of Manurewa study from May 2015-June 2016. As part of the programme 420 eligible cats were trapped; 84.5% of these were desexed and returned, 5.5% were euthanased for health reasons, and 10% were rehomed. In the following year the shelter receiving cats from the targeted area had a 53% decrease in cats entering the shelter from that suburb in the study year and the year following. In addition, there was a 58% decrease in euthanasia of kittens from the targeted area because they were underage and a 69% decrease in euthanasia of cats from the targeted area because they were unsocialised (unpublished data being submitted for publication).

The following are examples from the literature of TNR programmes that were reported as unsuccessful:

- One US study reported that two colonies that were part of a TNR programme in Florida had their population size increase over the one year of study due to immigration of new cats dumped at the highly visible colony sites (Castillo and Clarke 2003).

- In Israel, a study compared rates of immigration, emigration and kitten survival over one year between two cat colonies that were subjected to TNR, with two control cat colonies where the cats were not desexed. The number of adult cats in the two TNR colonies increased over the study period due to higher immigration and lower emigration rates than in the control colonies in which the number of adult cats decreased. In addition, it was found that kitten survival in the TNR colonies was higher than in the control colonies. The researchers suggested that the increase in cat numbers in the TNR colonies was a result of sexually intact cats immigrating into the desexed colonies more readily and desexed cats reducing their emigration rates, possibly due to a reduction in reproductive and competitive pressures. In addition, it seems that immigrant cats entering the TNR cat colonies were not desexed during the study period and this may have contributed to the increase in colony size. It was also noted that significant effort was required to achieve the desired trapping rates of the free-roaming and largely poorly socialised cats (Gunther et al. 2011).

The following are examples from the literature of simulation models investigating TNR:

- A theoretical population model was used to assess the countywide implementation of TNR in San Diego County, California and Alachua County, Florida in the US. This study concluded that there was not a consistent reduction in per capita growth, the
population multiplier, or the proportion of female cats that were pregnant over ten years in San Diego and after seven years in Alachua County (Foley et al. 2005).

- Another study using computer-based modelling estimated that using a TNR programme it would take 12.8 years to eliminate a cat population with an annual neutering rate of 75% to 85% that was maintained throughout that time (Nutter 2005).

- Another computer-based model predicted that desexing of over 75% of the female cats would effectively control a cat population (Andersen et al. 2004).

- Similar modelling was used to compare the theoretical effect of a three year single-treatment non-surgical contraception programme with traditional surgical TNR. This model indicated that stabilisation of the cat population size would require that over 51% of non-desexed female cats were surgically desexed annually. Once the population had been stabilised it was predicted that approximately 14% of the total female population would need to be desexed annually or 71% of the total female population would have to be desexed at all times to maintain a stable population (Budke and Slater 2009).

- Another theoretical model was used to predict the effects of TNR on an actual cat colony using different capture and immigration rates in the model. If there was no immigration into the colony (which is unrealistic), the cat population size was predicted to decrease 46% after 25 years of TNR implementation and this was the same for a lethal control programme (Schmidt et al. 2009).

- One study modelled an additional approach to lethal control and TNR: ‘trap-vasectomy-hysterectomy-return’ (TVHR). In this model TVHR was predicted to be superior to both lethal control and TNR in reducing cat population as it resulted in a decrease in feral cat populations at lower capture rates than either lethal control or TNR. In addition, cat days in the environment (one way of assessing possible cat impact on wildlife) were also predicted to decrease more rapidly with increased capture rates for TVHR (McCarthy et al. 2013). However, this approach has not been fully evaluated in the field and would need field studies to adequately assess its efficacy and impact on cat welfare. In another study, it was reported that vasectomised male cats were more likely to be killed by vehicles than intact or castrated males (Nutter 2005). This is likely to be related to the greater distances that that vasectomised male cats were found to travel and larger home range size compared to intact or castrated males. It was suggested that the greater distance travelled and larger home range size for vasectomised male cats resulted from the
cats’ search for breeding females because the females in their home colonies were desexed (Nutter 2005).

- A recent study presented data from a simulation model that compared the potential effects of TNR with trap and kill methods of cat management on unowned cat populations. The model demonstrated the potential of TNR to stabilise and reduce cat populations and the relative effectiveness of TNR in comparison to the traditional trap and kill method (Miller et al. 2014b). However, it is to be noted that this model assumed that the trapping efficiencies for trap and remove and TNR were identical and this may understate the effectiveness of TNR. The authors acknowledged that economic, social and other considerations must factor prominently into the final choice(s) among multiple management options. One of the most important social considerations is the public support for the management method used. Many different factors have been reported to influence people’s support for TNR. These factors include demographics, residential location (particularly rural vs urban), attitudes, ethics, values, cat ownership (Kellert and Berry 1980; Ash and Adams 2003; Lauber 2007; Lord 2008; Loyd and Miller 2010; Loyd and Hernandez 2012). A recent New Zealand study indicated a public preference for TNR as a management tool for stray cats (Walker et al. 2017). A number of studies overseas have also reported broad public support of TNR (Kellert and Berry 1980; Lord 2008) and a preference for non-lethal animal management in general (Zinn et al. 1998; Agee and Miller 2009); but others have reported mixed results and less support (Loyd and Miller 2010; Loyd and Hernandez 2012) or even a preference for lethal control (Lohr and Lepczyk 2014). More research into public attitudes to cat management in New Zealand would be beneficial to provide a better understanding of the social context; there may be a significant disparity between public opinion and the operating policy of local governments, animal control and even some welfare organisations.

In addition to the debate about the efficacy of TNR, another controversy relates to the concern about the health and welfare of cats that are desexed and returned to colonies to live. Anthropogenic pressures on the health, behaviour and lifespan of the cats are of concern to many cat welfare advocates (Levy et al. 2003; Jessup 2004; Finkler et al. 2011b; McManus et al. 2014). Some research has found high rates of kitten morbidity and mortality in high-density free-roaming cat populations (Izawa and Ono 1986; Mirmovitch 1995, Gunther and Terkel 2002; Nutter et al. 2004; Gunther et al. 2011). It
has been reported that the two most common outcomes for individual cats in colonies were disappearance from the colony or death, most often due to motor vehicle trauma (Nutter 2005).

Another concern expressed regarding the welfare of colony cats is that these cats are likely to be at high risk of infectious disease. However, the baseline health status and infection rate of FIV (Feline Immunodeficiency Virus), FeLV (Feline Leukaemia Virus), Cryptosporidium spp., Giardia spp. and Toxocara cati of colony cats in many studies have been found to be similar to that reported in both feral and owned cats (Lee et al. 2002; Luria et al. 2004; Levy and Crawford 2004; Nutter 2005; Levy et al. 2006). Although other studies have reported a higher incidence of FIV in feral cats compared to companion cats (Nutter 2004; Norris et al. 2007). In New Zealand a recent study reported that the seroprevalence for FIV was 14% among cats entering an animal shelter in Auckland, and the prevalence of FeLV antigen-positive cats was 1% (Gates et al. 2017). Other published studies (from over 20 years ago) of the prevalence of infection with FIV and FeLV in New Zealand, reported a prevalence of FIV infection from 6.8% in healthy cats to 27% in sick cats and the prevalence FeLV infection in cattery populations between 4.4 and 11% (Jones and Lee 1981; Swinney et al. 1989; Jones et al. 1995). Feral cats have been reported to have higher seroprevalence of Bartonella henselae and Toxoplasma gondii compared to owned cats in some studies, and it has been proposed that this was due to greater exposure of feral cats to the vectors or hosts of these organisms (Dubey 1973; Nutter 2005). One study of urban ‘feral’ cats in Brazil found that fleas were present on 28% of the cats, and Haemobartonella felis, piroplasmas (Cytauxzoon spp. or Babesia spp.) and FIV infected 38%, 47% and 21% of the cats respectively. No cat was found to be infected by Dirofilaria immitis or FeLV (Mendes-de-Almeida at al. 2004). Infectious conditions of cats will vary in different countries and locations and this will affect the welfare of those cats; the local conditions require careful evaluation if a TNR programme is to be considered for cat management. In addition, the accumulation in the environment and effect of ectoparasites and other pathogens that can be carried by cats and affect other species, must also be considered (Longcore et al. 2009); these include fleas, Haemobartonella felis, Ricksettia spp., Coxiella spp (Chomel et al. 1996; Shaw et al. 2001; Akucewich et al. 2002), hookworms, roundworms (Uga et al. 1996; Anderson et al. 2003; Dubn’a et al. 2007) and Toxoplasma gondii (Dubey 1973).

The capture, transportation and surgery of cats associated with TNR certainly has the potential to cause distress to cats and, additionally, some cats will be pregnant when
desexed. However, overall it is considered possible to carefully manage the process to minimise distress during the TNR procedure and to safely desex pregnant females (Levy et al. 2002; Association of Shelter Veterinarians’ Veterinary Task Force to Advance Spay-Neuter 2016).

A recent study raised concerns about the welfare of free-roaming cats living in highly developed and crowded cities in Israel due to the high number of public complaints related to cat injuries and distress. Higher incidences of welfare problems were associated with higher levels of breeding and numbers of kittens. The authors suggested that controlling the reproduction of the cats, thereby reducing the number of births (and associated parturition dangers) and number of kittens (as kittens tend to suffer high mortality), could have the potential to reduce the welfare concerns associated with free-roaming cats (Gunther et al. 2015). The location of the cat colony and its proximity to areas that are high risk environments for cats (such as busy roads) have the potential to affect the morbidity, mortality and quality of life of the cats in the colony. Therefore, in the interests of animal welfare, the location of the colony should be considered when assessing its suitability for a TNR programme.

Recent research in New Zealand found that stray cats in managed cat colonies had good welfare, of a comparative level to owned cats, while even unmanaged stray cats’ quality of life scores were fair-to-good (Dale 2015). In a number of studied TNR colonies, only a small proportion of the cats trapped needed to be euthanased due to debilitating conditions (Wallace and Levy 2006). In addition, desexed free-roaming female cats have been found to have reduced cortisol levels and aggression compared to entire free-roaming female domestic cats (Finkler and Terkel 2010). This suggests that the welfare of the individual cats is improved by desexing, likely due to reduced social and reproductive pressures; evidenced by lower aggression of the desexed females.

Other evidence has shown that desexed cats in colonies lived significantly longer than their non-desexed counterparts (Nutter 2005). In another recent study it was reported that the morbidity rate for cats in colonies significantly decreased with increased desexing rate. The authors concluded that desexing may improve cat welfare (Gunther et al 2016). Since the welfare of free-roaming cats has been associated with the amount of care that is provided to them (Slater 2007), the care provided to the cats in a cat colony is likely to affect the animal welfare-related outcomes (Gunther et al 2015).

Another frequently cited concern about TNR programmes is the associated cost. Certainly these programmes require substantial investments of both time and money,
but these costs are reported to diminish overtime as the proportion of desexed cats in 
the colony increases and fewer cats need to be desexed (usually only new immigrant 
arraivals [Hughes and Slater 2002]). Although no studies were found that compared the 
cost of TNR to lethal management programs, both would require significant investment 
if properly implemented.

TNR programmes have the potential to be a useful cat management tool in urban areas 
where time and resources will allow the long-term reduction and eventual extinction of 
cat colonies (Stoskopf and Nutter 2004). The evidence in the literature can assist in 
identifying the factors that contribute to the success of a TNR program, in addition to 
high levels of desexing in the targeted area:

1. **Immigration of cats is prevented or minimised**

   TNR is likely to be successful in reducing and controlling cat numbers only if 
immigration into the colony can be prevented or reduced to a very low level. In 
addition, any cats that do join the colony must be desexed or adopted before they 
can reproduce (Guttilla and Stapp 2010; Paterson 2014). Immigration can be 
minimised by implementing public education programmes aimed at improving 
responsible cat ownership and by implementing TNR programmes where 
geographical boundaries prevent the immigration of cats into the programme area.

2. **The cat population is continually monitored**

   The ability to monitor cat numbers and arrival of new cats into colonies so that new 
arraivals can be adopted out or desexed promptly will contribute to the success of a 
TNR programme (Gunther et al. 2016).

3. **Researchers are active participants**

   Dedicated teams who implement the TNR programme with strict attention to detail 
are an important component of TNR success. Successful TNR programmes reported 
in the scientific literature have generally been implemented with participation of the 
researcher team (Hughes and Slater 2002; Levy et al. 2003).

4. **Cat adoption is an integral part of the programme**

   An adoption component is considered a crucial part of successful TNR programmes 
(Levy et al. 2003; Stull 2007). Combining adoption with TNR can offset immigration
into colonies and help reach the removal threshold necessary for population decline (Andersen et al. 2004).

5. **Carers/semi-owners are involved**

Involving cat semi-owners/cat carers in any TNR plan is vital as they can provide support and access to cat colonies, help to maintain positive public perceptions of the TNR programme and encourage community support and engagement (Haspel and Calhoon 1990; Centonze and Levy 2002; Ash and Adams 2003; Zito et al. 2015c; Kilgour et al. 2017).

6. **The cat colony is well managed and the programme adequately resourced over the long term**

A significant factor determining the success of a TNR programme is good management of the cat colonies involved. This requires good communication and trust building with all stakeholders, and the engagement and involvement of all participants (Gunther et al. 2016; Kilgour et al. 2017). TNR programmes must have long-term commitment and resourcing in order to achieve their aims (Levy et al. 2003; Kilgour et al. 2017). Good management will also include appropriate colony selection for the TNR programme, including assessing the risk to the cats and community related to infectious disease and environments posing significant risk to cat welfare.

7. **Stakeholders have an understanding of the programme and its aims**

To achieve public support, information about the impacts of cats on wildlife and human health, the need for TNR, and how TNR works would be an important component of implementing a widespread TNR program.

8. **Programme outcomes are properly evaluated and reported**

In order to effectively assess the success of TNR programmes, it is vital that the cat populations being targeted are accurately documented prior to management efforts and throughout the study (Kilgour et al. 2017). If TNR is to be used for urban cat population management, the use of tools like population modelling, population monitoring and adaptive management will be necessary to engage all stakeholders and improve its effectiveness (Perry and Perry 2008; van Heezik 2010; Boone 2015). This would involve the implementation of standardised TNR approaches.
based on best-practice methods that are coordinated under the framework of ‘adaptive management’, where monitoring data are regularly evaluated in order to improve the management program.

9. The programme does not conflict with wildlife management priorities

TNR programmes are not suitable in areas adjacent to sensitive wildlife areas where wildlife protection is a priority (Guttilla and Stapp 2010). Although TNR can lead to the extinction of a cat colony over time, this is likely to take 5-13 years. Therefore, TNR is not a suitable tool when acute issues (e.g. significant cat impacts on threatened or endangered species) require rapid extinction of a cat colony (Stoskopf and Nutter 2004) and there is another humane option that will achieve rapid colony extinction.

Implications for cat management

There seem to be four major concerns in relation to the implementation of TNR programmes in New Zealand: its potential effectiveness, the welfare of cats subject to TNR, the cost of implementation, and the impact of cats on wildlife. Most research seems to indicate that TNR is effective in terms of successfully reducing cat numbers and nuisance and can result in the eventual extinction of cat colonies. The evidence also indicates that cats in managed TNR colonies have reasonable welfare, if they are managed appropriately. With regards to cost, although substantial investments of both time and money are required initially, these costs diminish over time and both TNR and catch and kill programmes require significant investment if properly implemented. In terms of wildlife impacts, TNR has not been reported to have been implemented and assessed in areas where predation on wildlife is considered a significant issue. TNR would be unlikely to be considered suitable in such areas. It is important that conservation scientists and advocates adequately identify the environmental implications of the use of TNR and contribute this evidence to the assessment of this potential cat management tool (Longcore et al. 2009). Where TNR results in the reduction and eventual extinction of cat colonies, then wildlife impacts will also be reduced, but this aspect has not yet been properly assessed.

There is great variability in how well TNR programmes are implemented and it seems likely that poor implementation in the past has contributed to TNR programmes not
producing substantial and persistent reductions in cat populations. In addition, those programmes that are effective often fail to effectively document or publicise their success. However, the reverse may also be true, with results from non-effective programmes not being reported.

Based on domestic and international evidence, it seems likely that the public would support the implementation of TNR as an alternative to widespread lethal cat management in urban areas but conservationists are likely to have concerns about the potential impacts of cats on wildlife. However, these concerns may be mitigated by improving the effectiveness of TNR programs, specifying conditions on its use, and assessing and reporting the effect of TNR on wildlife predation.

If TNR is to be considered as a strategy to manage stray cats, it is strongly suggested that managed and targeted TNR (mtTNR) is used. This form of TNR is not carried out haphazardly but is strategically targeted to areas identified as having a stray cat overpopulation problem. The mtTNR programme is designed to systematically and comprehensively desex the majority of stray cats in the targeted area. Public education and stakeholder involvement is actively solicited and is a vital component of the programme. Specific conditions must be met for the use of mtTNR, these include (but are not limited to):

- Best practice mtTNR guidelines must be followed.
- In addition to being desexed, cats must be ear tipped and identified with a microchip. Where possible and practical, cats should also have external identification and, ideally, be vaccinated.
- Cats must be returned to a person or people who take responsibility for caring for the cat.
- Cats must be registered on a stray cat register.
- mtTNR should not to be used in sensitive wildlife area, or exclusion and buffer zones around such areas.
All of the documented studies on TNR have been conducted overseas, thus it is difficult to fully assess TNR as a potential cat management tool in New Zealand at this time. Since factors affecting the potential efficacy of TNR vary considerably between different areas and countries, data under obtained under New Zealand conditions is needed to determine the potential of TNR to assist in controlling urban cat populations in this country.

*Preventing stray cat reproduction through targeted desexing programs*

Targeted desexing campaigns involve proactively encouraging and facilitating individual carers of stray cats to have the cats desexed. This differs from TNR in that specific individual cats are desexed that are not part of a colony but rather are cared for by specific people who consents to having the cat desexed and returned to them (a semi-owner).

Desexing initiatives for stray cats need to be priced to be accessible for all those who need access to these services in order to encourage stray cat carers to desex the cats in their care. These programmes can be (and are already on a limited basis) run by animal shelters, animal welfare organisations, local government and private veterinarians. The success of such programmes is likely to be increased by also implementing education campaigns targeted at stray cat carers (or semi-owners), community engagement campaigns and providing assistance for cats to be transferred to the veterinary surgery if needed (e.g. volunteer support to pick up and drop off cats).

Recently geographic information systems (GIS) have been used to identify specific areas that are making disproportionate contributions of kittens to shelter intakes (Reading et al. 2014), and areas where there are high concentrations of stray cats (Aguilar et al. 2012) and unmanaged cat colonies (Aguilar et al. 2013). Using such methods, areas of particular need can be identified and made the focus of targeted desexing and education campaigns (Aguilar et al. 2012; Reading et al. 2014), and the same methods used to assess the efficacy of implemented programmes (Reading et al. 2014).

*Implications for cat management*

Targeted desexing programmes for stray cats with a specific carer (semi-owned cats) could be a valuable tool to reduce the number of unwanted kittens born to stray cats, reduce the number of stray cats (and likely reducing the impact of cats on wildlife as a
result) and improve the welfare of stray cats (as carers would be less likely to become overwhelmed by having too many cats).

**Education programmes for stray cat carers**

Recent research demonstrates that feeding of stray cats by human carers or semi-owners is a significant factor influencing stray cat numbers entering animal shelters and in the community (Zito 2015). Stray cat carers are clearly key stakeholders in the cat overpopulation problem (Toukhsati et al. 2007; Alberthsen 2014; Zito 2015, Zito et al. 2015b). Therefore, semi-owner engagement in potential solutions will be important to the successful management of cat populations. A potential tool to address cat semi-ownership is a customised education programme designed to acknowledge and connect with the perceptions and emotions of cat semi-owners. Recent research indicates that education campaigns specifically aimed at cat semi-owners are likely to be more effective at redirecting this behaviour than eliminating it (Zito 2015a). Cat semi-owners are likely to be more amenable to non-lethal than lethal cat management strategies, since they are attached to the cats they care for and feel protective of them (Zasloff et al. 1998; Centonze et al. 2002; Zito 2015a,c). Consequently, efforts to combat the contribution of semi-ownership to unwanted cat numbers should concentrate on encouraging and facilitating more responsible caretaking, in particular desexing, regardless of whether the semi-owner accepts ownership for the cat (Toukhsati et al. 2007; Finkler et al. 2011a,b; 2012; Toukhsati et al. 2012a). Acceptance of ownership is not necessary to achieve the goal of reducing the contribution of semi-owned cats to unwanted cat numbers and improving cat welfare. The goal is not to encourage cat semi-ownership but rather, where people are already feeding stray cats, the suggestion is to support them (particularly to desex their cats), in the interests of improving cat welfare, preventing the birth of unwanted cats and reducing cat numbers over time, as long as certain conditions are met. Instead of having to accept ownership of the cat, the carer or a welfare organisation could accept responsibility for the cat for identification and management purposes.

**Implications for cat management**

Education programmes targeting stray cat carers (semi-owners) are a vital component of any strategy to manage stray cats. If the problems associated with the feeding of stray cats are to be mitigated, it would be prudent to accept that people will continue to feed stray cats despite attempts to stop this behaviour and engage stray cat carers in
solutions to manage stray cat numbers and improve cat welfare, whilst allowing people to continue to care for the cats. This will necessitate a change in the way that the community, animal welfare groups and policy/law makers approach stray cat carers.

5.2.5. Managing companion (owned) cats

Good management of companion cats is an important component of both managing the overall cat meta-population, and in ensuring good animal welfare, community satisfaction and reduced wildlife predation. Many of the strategies to manage companion cats address more than one of these objectives.

Effective management of companion cats includes working to reduce surrender and abandonment, and promoting and facilitating responsible cat ownership.

Reducing cat surrender and abandonment

High rates of companion cat surrender overload the animal shelter and rehoming system and, consequently, reduce the number of placements available for stray cats needing homes. A detailed review of cat surrender is beyond the scope of this paper, but there is extensive literature available on this topic (Miller et al. 1996; DiGiacomo 1998; Salman et al. 1998; Salman et al. 2000; Kass 2005; Shore et al. 2005; Rinzin et al. 2008; Casey et al. 2009; Marston 2009). Many animal welfare organisations have made significant progress in tackling this issue through a number of initiatives including adoption counselling that incorporates advice on pet-friendly accommodation (for example, RSPCA Queensland [RSPCA Australia 2016]), provision of financial aid to help potential surrenderers care for their cat such as food banks (for example, the Sacramento Pet Food Bank, Bi-state Pet Food Pantry, and Project Maddie in the USA [Sacramento Pet Food Bank 2011; Project Maddie 2014]) and low cost cat health care (for example, from organisations such as the Lort Smith Animal Hospital in Australia and The Humane Society of the United States HSUS [Lort Smith 2014; The Humane Society of the United States 2014]).

Cat abandonment is illegal under animal welfare legislation in New Zealand but continues regardless. It seems likely that abandoned cats add to the stray cat populations, although there is no reported evidence to confirm this. Cat abandonment can be associated with many different circumstances, including but not limited to, the following:

- tenants moving out of a rental property/home leaving their cat behind
- tenant with companion cats being unable to find a rental property that permits cats
- when the human-cat bond is not established thereby devaluing the relationship
- the cat is not microchipped (as this means the cat cannot be traced back to the owner who abandoned the cat).

**Implications for cat management**

Significant progress has been made in reducing cat surrender through initiatives from animal welfare organisations to address situations that lead to surrender; these initiatives are of great benefit and it is important that they are continued.

Cat abandonment is illegal under animal welfare legislation but in order to reduce its occurrence, the existing legislation would need to be more consistently and stringently enforced. In addition, including an offence under cat management legislation would authorise animal management officers, rather than only inspectors appointed under animal welfare legislation, to intervene in situations were owned cats have been abandoned.

**Responsible cat ownership**

Responsible cat ownership is considered to include pre-acquisition factors (such as research to understand the animal's needs and behaviour and whether that animal is suitable for the intended home) and maintenance factors (including providing appropriate care, shelter, exercise, training, socialisation, identification, registration, desexing and confinement [Fournier 2004; Marston et al. 2008]). Further guidance is available in the code of welfare for companion cats on the Ministry for Primary Industries' website (www.mpi.govt.nz/protection-and-response/animal-welfare/codes-of-welfare/).

The key elements of responsible cat ownership from a cat management perspective are considered to be:

- Appropriate health care and desexing
- Identification
- Registration (where required)
- Containment (also termed confinement)
‘Responsible owners’ provide the majority of the caretaking behaviours for their cats in addition to acknowledging ‘ownership’ of the cat. ‘Casual cat owners’ acknowledge ownership for the cat and feed the cat but are less likely to engage in more responsible behaviours, such as desexing, identifying, registering, or providing veterinary care (Centonze et al. 2002; Toukhsati et al. 2007; Marston 2009). Cat owners may sit anywhere along the spectrum from responsible to casual cat owners.

**Cat containment**

Containment of cats is not yet commonly considered an important component of responsible cat ownership in New Zealand. However, preventing cats from roaming has the potential not only to prevent unwanted reproduction but also to prevent wildlife predation, minimise community nuisance, minimise disease transmission, and reduce the risk to the cat of contracting diseases or being injured or killed from traffic, fighting, dogs or human cruelty (Toukhsati et al. 2012b; Loyd et al. 2013). For example, a recent study conducted in South Australia fitted suburban owned cats with individual cameras and found a high frequency of potentially life threatening hazards to these cats (for example, road crossings, encounters with other cats, consumption of potentially toxic substances, and exploration of storm drain systems and crawlspace of houses) (Loyd et al. 2013). Although cats can be at risk at any time, there may be more risk to cats allowed to roam at night as cats have been found to have larger home ranges at night than during the day (Metsers et al. 2010).

The keeping of purely indoor cats (+/- a fully contained outdoor enclosure) is common in the USA and is increasingly recommended in Australia. However, rather than being a requirement this is often a choice made by cat owners in the interests of keeping their cats safe and secure, and/or to prevent wildlife predation. In New Zealand, it is still unusual for people to keep their cats fully contained.

The community acceptance for cat containment varies; some studies show broad support (Loyd and Hernandez 2012; Toukhsati et al. 2012b) and others a lack of support, or even opposition (Sharp et al. 2012). A recent New Zealand study reported that 41% of people interviewed supported confinement of companion cats to the owner’s property at certain times; night time confinement was the most commonly supported (Walker et al. 2017). Recent research suggests that campaigns to decrease cats roaming through containment will be more successful if the campaigns concentrate on the welfare benefits to cats, rather than concentrating on the benefits in terms of wildlife protection (Toukhsati et al. 2012b; Hall et al. 2016). In addition, people who
perceive higher risk associated with cats being outside have more negative attitudes toward cats being allowed outside (Gramza et al. 2016). Restrictions on roaming will serve the dual purpose of protecting wildlife as well as protecting cats. Collaborative education programmes involving councils, veterinarians, animal welfare groups and other stakeholders are essential to increasing acceptance and implementation of cat containment. Recent evidence suggests that locally relevant and targeted information that can increase the perception of risk associated with cats being outside, may prove useful in conservation efforts aimed at promoting adoption of risk-mitigation actions such as cat containment (Gramza et al. 2016).

There are few areas where cat owners are required to fully contain their cats 24 hours/day, where, if allowed outside, cats must be on a leash or in an enclosure. There is limited information available about the implementation of 24-hour cat containment and the outcomes. Anecdotal reports indicate that in those areas in the Australian Capital Territory (ACT) where 24-hour cat containment regulations have been implemented, there were no cat attacks on wildlife reported since the requirement was put in place (Source: RSPCA ACT). There are no other reports found of success, or failure, relating to 24-hour cat containment requirements and no reports of formal monitoring.

In addition to 24-hour cat containment requirements there are other, less strict, limited requirements for cats to be contained; these vary significantly in the different locations in which they are introduced, in terms of the times at which cats must be contained and also the extent to which cats must be contained. In some areas, cats may only go outside on a leash or in an enclosure but in other areas the containment requirement only obliges the cat to be contained to the owner’s property but not necessarily in an enclosure or on a leash. Such requirements have been implemented in different ways by different local councils. Overall, no measurable reduction in cat complaints or cats wandering at large has been demonstrated following the implementation of the cat containment requirements. In the few existing media reports, the assessment of the success or failure of cat containment requirements is seemingly based on no, minimal, or questionable data. Compliance with such regulation relating to the confinement of cats at night is largely unknown although been reported to vary between 32–80% in Australia (Toukhsati et al. 2012; Loyd et al. 2013), making appropriate assessment difficult.

Additionally, cats may kill wildlife and mate during the day and within the confines of their owner’s property. In fact, research suggests that companion cats hunt mostly during the day (Metsers et al. 2010). Consequently, there are limits to the effectiveness
of cat containment requirements with respect to limiting wildlife predation and a reduction in the ability of entire cats to breed and multiply, unless cats are required to be contained indoors or within an enclosure/on a leash when outside 24 hours/day.

There are some potential cat welfare issues associated with cat containment including the following:

- Some methods for containing cats have the potential for a negative impact on cat welfare.
- Health and behaviour problems may be associated with containment, particularly if the cats' environment and diet are not adequate or appropriate.
- Inadvertent trapping of owned cats that are not contained (or have escaped).
- Increased owned cat surrender or abandonment due to the imposition of an added responsibility to cat ownership or health or behavioural issues associated with containment.

Enforcement of containment regulations can prove difficult for various reasons including the following:

- Difficulty of capturing cats that are in breach of containment regulations.
- Unrealistic community expectations in regard to enforcement and management.
- The majority of trapped and impounded cats are not owned, so there is no possibility of taking any enforcement action.
- The expense of proper monitoring and enforcement may be prohibitive, and is likely to far exceed the benefit gained from limited cat containment regulations.

Anecdotal information from councils that have introduced cat containment regulations shows that there have been limited numbers of enforcement actions by animal management officers following their introduction. Instead, anecdotally it seems that the public are taking action themselves by trapping cats through council cat trap programmes and loan schemes. As a result, cat trap services have expanded, with the purchase of additional traps and allocation of additional staff resources to manage the delivery and collection of traps and impounding of cats, all at significant cost.

Where owners are unable to confine their cats, promotion of effective methods to reduce predation is of benefit. Bells on collars have been shown to be relatively ineffective in preventing overall predation (Calver et al. 2011). However, other research has shown that a specially designed ‘cat bib’ does reduce predation, with cats tolerating this device well (Calver et al. 2007). In addition, a study evaluating the impact of a
colourful, cat-specific anti-predation collar cover worn around the neck on a break-away collar (Birds Be Safe), also showed reduced predation (Hall et al. 2015).

Where cat containment regulations are proposed, the cat-owning public need to be informed about the benefits of containment but also about how to provide a suitable and enriched environment for their cats (Lloyd et al. 2012; Toukhsati et al. 2012b). It is acknowledged that there is the potential for cat containment to result in negative health and welfare issues for cats (for example, obesity, stress and stress-related health and behavioural issues) (Herron and Buffington 2010; Zoran and Buffington 2011). Therefore, it is important that cat owners provide their contained cats with an appropriate enriched environment and diet to mitigate potential problems and ensure their cats' well-being (Ellis 2009; Herron and Buffington 2010). Community education programmes which promote the benefits and practical aspects of welfare-friendly cat containment, and which involve councils, animal welfare organisations, veterinarians and pet supply businesses, would be beneficial. In addition, evaluation of the scheme through a monitoring system with baseline statistics and ongoing measurement of outcomes should be established before implementation. Publishing the results would be very useful as there is currently no information on this reported in the literature. Anecdotally, it seems that converting cats from an outdoor lifestyle to an indoor lifestyle can be challenging, whereas cats that are habituated to an indoor or contained lifestyle from an early age seem to cope better. More evidence to help determine how best to help cats and cat owners transition to and manage containment and ensure good cat welfare would be of great benefit.

**Implications for cat management**

There is a lack of clear and measurable objectives for the implementation of cat containment regulations. There is also a lack of monitoring or data that can be used to adequately evaluate success.

From the available information it seems that regulations that mandate 24-hour containment of cats (i.e. where cats must be indoors, in an enclosure or on a leash always), are more likely to achieve the assumed goals of significantly reducing wildlife predation, breeding of unwanted cats and cat nuisance, than limited containment regulations.
In order to have the most benefit for cat management, containment needs to be combined with mandatory identification (so that cats found outdoors can be identified as owned) and effective humane strategies to manage unowned cats.

There are feline health and welfare issues that need to be considered and addressed if cats are to be contained. Any move to increase cat containment would need to be carefully considered and incorporate appropriate public education and assistance to help safeguard cat health and welfare.

After a containment regulation is introduced, there may initially be an increase in admissions, adoptions and euthanasia if wandering cats are trapped in breach of the containment regulations. Strict containment laws may also deter people from owning cats and this could lead to an increase in shelter and veterinary euthanasia rates. These problems may be mitigated if regulation is preceded by owner education and facilitation of behaviour change towards more responsible cat ownership, and if the regulation is implemented gradually.

Cat owners also should be educated about the significant risk to wildlife from companion cats. If cat owners live in an area where containment is not mandated and they do allow their cats outdoors, they should also be educated about effective anti-predation measures to mitigate the risk their cat poses to wildlife.

**Identification**

In general, mandatory identification refers to a requirement to have cats microchipped from a specific age or if the cat is being transferred from one owner to another. Identification of a cat is generally considered as a mark of ownership and is an indication that the ‘owner’ values the animal enough to claim the cat as theirs. Identification is a fundamental tool of animal management at a community level. Microchipping is the preferred method of identification as this is the only permanent and unalterable form of identification currently available for cats that provides access to details of the cat’s owner or carer (and possibly other useful information).

Identification of an animal helps welfare agencies, pounds, veterinarians and concerned members of the public to make appropriate decisions about how to manage a found cat. The many benefits of effective identification include the following:

- If a cat is lost, the owner can be identified and contacted so the cat can be reclaimed.
• If an owned cat is injured, the owner can be identified so that prompt and appropriate decisions can be made about the cat’s medical treatment.

• If a cat is straying and causing a nuisance the owner can be identified and educated about their responsibilities, warned or penalised (subject to the local legislation and policies).

• If a cat does not have a microchip, the cat may be assumed to be an unmanaged stray. This means that appropriate decisions can be made according to the relevant legislation if the cat is injured or dislocated.

Microchipping is generally a reliable means of lifetime identification though some stakeholders do have concerns about the potential for microchips to fail and the resultant inability to identify microchipped cats. Although this is a valid concern, the failure rate of microchips is very low. Of all the microchips registered on the New Zealand Companion Animal Register (NZCAR), the recorded failure rate is 0.1%. In addition, this is most likely an overestimate; when microchips are reported/recorded as failed NZCAR is unable to distinguish between implanter error, true microchip failure or microchip reader error. In many cases, microchip failure is listed as the cause, but in reality implant error is the reason for failure. Implant error, particularly by untrained implanters, can significantly impact on the failure rate. Therefore, microchip implanter training is vitally important and the NZCAR will not allow registration of microchips from implanters without some form of implant qualification. Another key cause of microchips being recorded as failed is a problem with the reader being used. Readers with a low battery level often fail to detect a microchip on the first pass. Therefore, it is strongly recommended that all microchip readers are kept fully charged.

Another common concern expressed about microchipping is the risk of tumour growth associated with the presence of the microchip under the animal’s skin. There is no good evidence to suggest that cats implanted with a microchip are at a higher risk for developing a tumour; if microchips do cause the formation of tumours, the risk appears to be extremely low. Although millions of animals that have been microchipped around the world since the early 1990’s there are only two case reports of cats (Daly et al. 2008; Carminato et al. 2011) and two case reports of dogs (Vascellari et al. 2004; Vascellari et al. 2006) developing tumours at, or adjacent to, the site of a microchip in the published literature. In the two cases of tumour development associated with microchips reported in cats, the microchip was adjacent to, not embedded in, the tumour (Daly et al. 2008; Carminato et al. 2011). In one of the reported cases the cat had also received numerous vaccines in the same area (Daly et al. 2008) and, since tumour formation can be
associated with vaccinations (Vaccine-Associated Feline Sarcoma Task Force 2005), it was not possible to determine the origin of the tumour. There has been one reported case of tumour development around a microchip in a dog (Vascellari et al. 2004). Another case was reported where the microchip was attached to, but not embedded in, the tumour and rabies vaccines had also been given in a similar area (Vascellari et al. 2006). Therefore, the tumour could not be directly linked to the microchip itself (Vascellari et al. 2006; AVMA 2013).

In the UK, the Microchip Advisory Group (MAG) monitors adverse events associated with microchipping. The British Small Animal Veterinary Association (BSAVA) released a report from the MAG in 2004 that showed at that in the 13 years since establishment of the monitoring program, only two tumours were reported despite microchip implantation in more than 3.7 million pets in the United Kingdom (AVMA 2013).

Some cases of soft tissue tumours surrounding a microchip have been described in laboratory mice and rats (Tillmann et al., 1997; Blanchard et al., 1999; Elcock et al., 2001). However, mice and rats are more susceptible than other species to developing foreign body-induced tumours. Therefore, it is not appropriate to extrapolate the findings associated with foreign body-induced tumours in mice to risk in other species (Haifley and Hecht 2012, AVMA 2013). It is possible for neoplasia to be induced by any foreign substance inserted into the body for long periods (Elcock et al. 2001; Brand et al. 1976; Vascellari et al. 2006; AVMA 2013). The WSAVA Microchip Committee has concluded that the benefits of microchip implantation far outweighed the potential health risks, as development of tumours at microchip implantation sites appears to be a rare event (WSAVA 2002).

There is no brand of microchip currently on the market that is immune to failure but microchipping is still far more reliable than other identification measures. However, solely relying on microchipping as the only form of identification may limit the capacity to locate owners efficiently; microchips are not visible, require access to a microchip reader and rely on the information linked with the microchip being accurate. It is common for microchipped cats that are lost and entering shelters to have data associated with their microchip that is inaccurate; this makes reuniting cats with their owners difficult (Alberthsen et al. 2013a; Alberthsen 2014). An Australian study showed that 37% of stray but microchipped cats entering RSPCA QLD had inaccurate data associated with their microchip (Lancaster et al. 2015). Nearly half of those cats were registered to a previous owner and nearly one third had either incorrect or disconnected contact phone details associated with their microchip.
The addition of a collar and tag for companion or managed stray cats is of great benefit as they give a visual indication of a cat’s ownership/management status and help to reunite lost cats with their owners/carers prior to, or following, shelter admission (Lord et al. 2010; Alberthsen et al. 2013b).

Positive documented outcomes of mandatory identification include:

- Mandatory cat identification, in combination with registration, and annual licensing, has been associated with an increase in the reclaim rates of cats (Lord et al. 2007; Lord et al. 2010). Theoretically, mandatory identification alone (microchip and/or collar and identification tag) should also increase reclaim rates.
- Providing cats with collars and a visible identification tag has been successful in reuniting cats with their owners (Lord et al. 2007; Lord et al. 2010).
- After mandatory identification of cats was introduced in the Australian Capital Territory (ACT) the number of cats returned to their owners after they entered the RSPCA ACT shelter increased (Source: RSPCA ACT).

Examples of countries with mandatory identification and supporting legislation include Australia, Canada and the United States of America. Where mandatory identification has been introduced, there is some variability in the age at which cats are required to be microchipped and whether a previously un-microchipped adult cat is required to be microchipped. In addition, some localities also require external identification (usually a council registration tag if cats must also be registered in that locality).

There are issues that need careful consideration when contemplating the introduction of mandatory identification including:

- The (usually unintended) effect of an increase in impoundment and euthanasia of stray cats and cats who have owners who do not want to comply with the law.
- The tendency for these laws to be worded in a way which makes it illegal for someone to care for a stay cat without taking full ownership (for example, by registering and microchipping the cat). This discourages people from caring for stray cats and, if the person knows that the cat is likely to be killed if taken to a shelter, they may opt to do nothing (Zito 2015).

**Implications for cat management**

Mandatory identification has the potential to be a very useful tool to help humanely manage cat populations. This is largely due to its facilitation of timely and well-informed
decisions about a cat’s ownership/management status and the consequent ability to take prompt and appropriate action for each individual cat, especially to increase reclaiming rates. However, the legislation needs to be enacted and implemented in a way that minimises the potential negative aspects.

An additional mandatory requirement for cats to display a collar and tag would be of great benefit as it would overcome some of the potential limitations of microchipping alone as a form of identification. To safeguard cat welfare, quick-release collars must be used. Ear-tipping should also be used as a distance visualisation method in stray cats.

The best way to analyse the success of mandatory identification laws would be to monitor the percentages of cats reunited with their owners after being lost but comprehensive data would be very hard to obtain. The most reliable data available are from the reclaim rate of cats from animal shelters and pounds which could be compared pre- and post- the introduction of mandatory identification.

**Mandatory desexing**

Reports of mandatory desexing legislation implementation come predominantly from the USA and Australia. Mandatory desexing is intended to reduce cat overpopulation and promote responsible ownership of cats. Most commonly local government authorities are given the power to administer and enforce the legislation and the requirements differ in the various localities where they are introduced. Some localities require that all domestic cats over a certain age be desexed (the age requirement generally ranges from 3-6 months of age). However, there is usually no enforcement of mandatory desexing requirements as this is difficult and expensive.

Some localities in the USA require that any rehoming agency (e.g. pound, animal shelter) desex cats and kittens prior to release to their new home. This may be in addition to mandatory desexing for owned cats or a stand-alone requirement.

A review of the available information reveals that mandatory desexing requirements are only occasionally monitored. Most frequently this involves comparing data pre- and post- mandatory desexing introduction in the following areas:

- Shelter/pound cat admissions
- Shelter/pound cat euthanasias
- Cat adoptions
- Cat registrations (where this is mandatory)
- Cats returned to their owners from shelters (as mandatory desexing requirements are commonly introduced in concert with mandatory identification and/or registration requirements)

- Animal management costs

In Australia, some data were collected in 2007 in an effort to assess the impact of mandatory desexing when it was introduced in 2001 in the Australian Capital Territory (ACT). There is only one shelter for cats in the ACT and a handful of rescue organisations that deal with relatively small numbers of animals (Australian Veterinary Association Centre for Companion Animals in the Community, 2007). Overall, no positive impact associated with the introduction of the legislation was demonstrated using these measures. Trends in cat intake and euthanasia in the RSPCA ACT shelter paralleled those in New South Wales (NSW) (which has no mandatory desexing legislation) and Australia as a whole. A lack of enforcement and education/community support initiatives are considered to be the major factors contributing to ineffectiveness of mandatory desexing legislation where it has been introduced.

Mandatory desexing legislation will be of significant use in those areas where a high number of cats entering animal shelters/pounds are unwanted kittens from owned cats or owned adult cats surrendered as a result of unwanted breeding.

The available evidence and analysis of the situation around mandatory desexing legislation indicate that the apparent ineffectiveness of this strategy may also stem from the fact that responsible cat owners who can afford desexing already desex their cats (although some only after the cat has already had a litter of kittens) but those owners who do not desex their cats either cannot afford to do so or are not motivated to do so because the mandatory desexing legislation is not promoted or enforced. The resources and commitment to actively enforce mandatory desexing legislation are generally lacking and so implementation is not as effective as it could be.

One key approach to significantly decreasing intake and euthanasia rates for cats in animal shelters/pounds in most areas is to manage the stray cat populations. Mandatory desexing will not be helpful in this situation. In areas where the majority of cats and kittens entering shelters are stray, funding may be better spent on other strategies that can address this source of cat overpopulation.

One way to address this is to mandate desexing and identification of cats at point of sale or transfer of ownership or impoundment. This strategy has the potential to provide many of the benefits theoretically associated with mandatory desexing but which have
been lacking in practice, likely due to compliance and implementation issues. There would still be a need for monitoring for compliance but this would be more achievable and would involve considerably fewer resources than needing to monitor a mandatory desexing policy that applied to all cats.

In areas where the cat population dynamics are appropriate for this strategy, mandatory desexing legislation would be most effective if:

- The legislation is adequately promoted so that people selling, buying and impounding cats know that it is a requirement that the cats/kittens are desexed.
- Cats are desexed before the onset of sexual maturity (less than 4 months of age) (Budke et al. 2009) which requires support from veterinarians.
- Measures are put into place to facilitate desexing of cats whose owners cannot afford general desexing costs.
- Mandatory identification requirements are also introduced.
- The legislation is adequately enforced.

It is likely that not all those selling cats would comply with such legislation (retail outlets, breeders and rescue organisations are probably most likely to comply and private vendors probably least likely to comply) and certain groups would be easier to monitor than others (retail outlets, breeders and rescue organisations would be easiest to monitor and private vendors most difficult). However, even an imperfect uptake would still be a considerable step forward in ensuring that many more cats were desexed.

Mandatory desexing prior to sale/transfer would likely increase the cost to obtain a cat. This may result in reduced cat ownership but potential cat owners may be more likely to give serious prior thought to and have a commitment to responsible cat ownership.

In some places, for example Queensland in Australia, it is a mandatory requirement for veterinarians to tattoo all cats that have been desexed. This is of great benefit, especially for females, where rapid assessment of desexing status, especially for cats entering a shelter, can avoid the need for surgical intervention.

Implications for cat management

From the available data it seems that mandatory desexing legislation has not been successful at reducing shelter/animal control cat intake and euthanasia rates. It is likely that the most significant contributing factors to this lack of success are lack of
enforcement of the legislation and unowned cats generally being the major source of cats entering shelters and pounds. However, where owned cats are considered to be a significant source contributing to high shelter intakes, mandatory desexing prior to sale/transfer may be a useful strategy to help reduce the number of litters born. In addition, where mandatory desexing is successfully implemented and enforced, it should reduce the number of unowned cats that originate as unwanted kittens of owned cats.

**Accessible desexing initiatives**

An alternative or supplementary strategy to mandatory desexing is the provision and promotion of desexing initiatives for companion and stray cats that are priced to be accessible for all those who need access to these services. This strategy represents a paradigm shift from punishment of non-compliant cat owners and censure of non-owner cat carers to incentives to encourage responsible cat caretaking from both groups of cat carers and is becoming increasingly common overseas.

One of the main contributing factors to the continued high cat intakes into shelters is likely to be the failure to increase the desexing rate of cats living in low-income households (Marsh 2010) and stray cats that have a carer (Toukhsati et al. 2007; Zito 2015). A 2007 study in the USA found that only 51.4% of cats living in low income households were desexed compared to more than 90% of cats living in households with higher incomes (Marsh 2010). In Australia, cat surrender has been associated with a lower socio-economic status (Zito 2016a) and a number of studies have identified lower desexing rates among owner-surrendered cats (12% [Marston et al. 2009; Alberthsen et al. 2013b; Alberthsen 2014] and 47% [Alberthsen et al. 2013b]) compared to owned companion cats (over 90%; Toukhsati et al. 2007; 93%; New Zealand Companion Animal Council 2016). These high reported rates of desexing of owned cats are likely only representative of responsible cat owners who have adequate resources to pay for desexing.

There are few data evaluating these programmes but there are many anecdotal success stories reported for free/low cost/subsidised desexing programs. Examples include:

• The Gold Coast City Council subsidised desexing scheme as part of the Australian Getting to Zero (G2Z) initiative (Animal Welfare League of Queensland 2017)
• New Hampshire’s Animal Population Control Program, USA (Target Zero 2016)
• First Coast No More Homeless Pets in Jacksonville, Florida, USA (Target Zero 2016)

Characteristics common to successful desexing initiatives are:

• Programmes help only those caretakers who genuinely need help to get their pets desexed. Several criteria that can be used to decide who can access these desexing programmes include: income targeting, geographic targeting, and programmes for senior citizens. Income targeting has proven to be the most cost-effective approach; eligibility for a public-assistance programme can be used as the basis for this.
• Programmes are affordable for poverty-stricken caretakers and caretakers with poverty-level incomes. The affordable price would need to be determined based on the relevant statistics for New Zealand.
• Programmes are accessible to indigent caretakers. These people usually also need help to transport their cats to the place where the surgery is performed and back home again. Options to address this issue include: providing services through a network of private veterinary clinics if enough clinics participate, a mobile surgical unit, or organising transport of cats to a fixed-site clinic. Ancillary services such as transportation for cats to and from surgery appointments are crucial in assisting low-income cat owners (Target Zero 2016).
• Programmes have enough funding to desex large numbers of animals from indigent households every year for several years. It has been reported that desexing 5 pets from indigent households every year for every 1,000 residents will significantly reduce local animal shelter intake and euthanasia rates. However, if the programme cannot sustain that volume over the long term the progress it has made can quickly be reversed (Marsh, 2012).
• Time-limited desexing programmes that are available to all cat owners, broad scale high profile promotion and incentives are likely to increase uptake (pers comm Mandy Paterson, RSPCA QLD, 2016).

Implications for cat management

Desexing initiatives for companion and stray cats that are priced to be accessible for all those who need access to these services have been shown to have significant potential
to reduce animal shelter/animal control cat admissions and euthanasia. These initiatives also generally receive strong community support. Therefore, these programmes are a fundamental component of any effort to address cat overpopulation and reduce the number of unwanted cats in a community. These accessible desexing programmes may be combined with mandatory desexing legislation but are also very successful without any legislation requiring desexing.

**Pre-pubertal desexing**

Although 93% of owned cats in New Zealand are reported to be desexed (New Zealand Companion Animal Council 2016), the age at which these cats are desexed and if they had a litter of kittens before desexing is unknown. It has been reported that only 70% of cats in the Australian community are desexed before 6 months of age, allowing for unplanned litters from young, sexually mature queens prior to desexing (Toukhsati 2005); it is likely the situation is similar in New Zealand. A high number of well socialised kittens from owned litters are surrendered to shelters (New et al. 2000; Marston et al. 2009; Animal Welfare League of Queensland 2010) and, although many are likely to be from stray cats with carers, a proportion are likely to be from owned companion cats producing kittens before they are desexed (Marston et al. 2009).

The ‘traditional’ age of desexing is six months of age. Unfortunately, this allows cats to reach reproductive maturity before they are desexed (Joyce et al. 2011; Clark et al. 2012; Zanowski 2012); cats may reach reproductive maturity as early as three and a half months of age (Little 2001; Farnworth et al. 2013a). Delayed desexing of owned cats is reported to often result in the production of unwanted litters of kittens (Alberthsen et al. 2013b), but this can be addressed through the introduction of pre-pubertal desexing (sometimes termed ‘early-age desexing’ because it is performed earlier than the traditional six months of age) (Manning et al. 1992; Fournier 2004; Alberthsen et al. 2013b; Johnson et al. 2014). Therefore, it would be of great benefit to revise current desexing recommendations so that veterinarians and other sources of information for cat carers and owners advise that companion cats are desexed at four months or earlier.

In addition, any initiatives to desex stray cats should also aim to desex these cats before four months of age to prevent reproduction prior to desexing.

Pre-pubertal desexing is routine procedure for animal shelters; commonly kittens are desexed at approximately eight weeks of age and when they are over one kilogram in body weight. Multiple benefits from pre-pubertal desexing have been demonstrated for the individual cat as well as benefits in terms of cat population management (Spain et al.
2004; Joyce et al. 2011; Farnworth et al. 2013a; Yates et al. 2013; Porters et al. 2014). However, this procedure is not yet universally accepted among the veterinary community, as there are divided opinions on pre-pubertal desexing (Farnworth et al. 2013a; Yates et al. 2013) and there is often a lack of veterinarians who have adequate experience with pre-pubertal desexing and who are willing to offer this service to the community. It may be helpful to promote pre-pubertal desexing between 14-16 weeks of age as veterinary practitioners may be more likely to accept desexing of cats at this age.

Veterinarians are a vital link in communicating with cat owners and ensuring that owned kittens are desexed before reproductive maturity (New et al. 2000; Fournier 2004; Stavisky 2014; Welsh et al. 2014). Therefore, encouragement of veterinarians to accept this procedure and training to ensure that they are comfortable delivering this service is very important (Farnworth et al. 2013a; Yates et al. 2013). In 2013, seven UK-based animal welfare organisations, including RSPCA UK and the British Veterinary Association, joined together to form ‘The Cat Group’ to try and help reduce reproduction rates in owned cats. A website dedicated to promoting pre-pubertal desexing was established, providing a resource to veterinarians and the community. The information provided includes a register of veterinary schools that teach pre-pubertal desexing, a register of veterinary practitioners who offer pre-pubertal desexing, as well as training videos for veterinarians. A report produced by RSPCA UK concluded that ‘the promotion and practice of pre-pubertal neutering (at four months) by vets – as the norm for owned cats – is vital to tackling the cat population crisis.’ (RSPCA UK 2014).

Implications for cat management

The implementation of large scale pre-pubertal desexing is likely to have a positive impact on cat management in terms of reducing cat overpopulation. This should result in a decrease in cat predation on wildlife and also a decrease in animal shelter/control cat intake and euthanasia. However, there are no reports in the literature or media about the impact of such a scheme, as it has never been introduced or reported on a large scale. If such a programme is implemented, then formal assessment would be a very beneficial addition to the literature in the field of cat management.
Registration

Registration establishes ownership of a cat and allows the local government to monitor and enforce other animal specific laws such as limits on cat numbers, breeding regulation, mandatory identification and desexing.

Mandatory registration of cats is uncommon worldwide but is required in some parts of Australia, Canada and the USA. It is more common in the places with laws to try and control rabies as registration (licensing) is often driven by the rabies control laws in these areas.

There are no reports of successful implementation of mandatory registration, but the objectives are not clearly apparent. This makes assessment of the outcomes difficult.

Cat owners generally do not see the benefits of registration and view it as an extra cost and layer of bureaucracy. Also, local government may not see benefit in imposing mandatory registration with mandatory identification being implemented.

The draft Tasmanian Cat Management Plan in Australia proposes that council income from cat registration and cat registration numbers could be monitored and would be the only measure specific to mandatory registration. Where councils allocate funds from registration to support community initiatives such as desexing and microchipping, then these parameters would be useful measures to assess the impact of registration.

Implications for cat management

Mandatory registration is unlikely to have any significant impact on the cat overpopulation problem. Its implementation and administration is expensive and the cost of enforcement and monitoring is likely to be prohibitive. However, some local governments have used the funds to employ a part time cat management officer and allocate funds to support low-cost desexing for low-income families.

Limiting the numbers of cats allowed to be owned

Limiting the number of cats that can be kept by an individual owner is an attempt to reconcile the sometimes conflicting interests of pet owners with property owners and cat nuisance issues. It is also sometimes discussed as a measure to manage overall cat numbers. An increasing number of jurisdictions are enacting regulations on the number and type of animals a person can keep on their property. Restricting cat numbers is likely to benefit cat welfare (as multicat households can be a highly stressful
environment for many cats), provided that cats are still able to benefit from living with compatible conspecifics, and may act as an incentive for desexing.

Most councils impose a standard maximum limit of two to three cats per household. However, there are a number of households who successfully care for up to five or six cats so councils should allow for additional cats to be allowed upon request and under permit (under specific conditions; for example, where the cats are desexed, microchipped, contained and well cared for).

Restrictions on the number of cats allowed per household may also assist in resolving cases of animal hoarding and help prevent the establishment of kitten farms. When implemented alongside ownership regulations, breeding regulations can also limit the number of breeding cats owned, litters born and require cat breeders to meet minimum standards of care and containment (see below). Where there are no strict cat containment regulations, having fewer cats should also result in lower predation.

There are no reports of assessment of specific outcomes for the restriction on the number of cats that can be kept.

*Implications for cat management*

Limiting the number of cats that can be kept is suited to managing the sometimes conflicting interests of cat owners and property owners, helping to prevent kitten farms and may assist in addressing cases of animal hoarding. The requirements (or lack of) for cat containment will depend on whether this will also help reduce wildlife predation or community nuisance from roaming cats. This approach may assist in reducing overall cat numbers when used in combination with other responsible pet ownership strategies.

*Breeding regulation*

Cat breeding regulation allows for the mandatory registration of breeders and the need for breeders to comply with a breeder welfare code. Regulations of this type are recent developments and have been introduced to address the problem of kitten farming and other poor practices that compromise cat welfare and health, rather than as a cat management tool relating to responsible ownership, cat overpopulation and cat predation on wildlife. However, these regulations may have indirect benefits in addressing these issues. Where breeding regulation is effectively enforced and includes
breeder traceability and requirements for microchipping and desexing of kittens prior to sale or transfer, these benefits may be significant.

There are no clearly defined goals relating to breeding regulation and no reports yet of assessment of specific outcomes of the breeding regulation schemes that have been put in place.

*Implications for cat management*

Breeding regulation is likely to be of use in trying to combat kitten farms and other poor practices that compromise cat welfare and health. However, many of these regulations are new and further evaluation is required to understand the overall impact on cat management. Breeder licensing may be beneficial in facilitating enforcement of mandatory desexing requirements as only registered breeders would be able to legally transfer ownership of entire cats.

*Cat owner education*

Responsible cat ownership comprises two different elements: firstly and preferably, owners voluntarily doing the right thing and, secondly, enforcement of responsible cat ownership requirements through legislation. If cat owners understood responsible cat ownership requirements, were committed and had appropriate resources to be responsible, there would be very little need for legislative requirements.

Awareness, education and opportunity are fundamental to widespread commitment to responsible cat ownership which results in the responsible cat owner ensuring that their cat is safe, happy and healthy, does not disturb the environment or neighbours and does not contribute to stray or feral cat populations (through production of unwanted kittens or straying). All messaging needs to be clear, concise, consistent and accessible.

*Increasing public understanding of the importance of responsible cat ownership*

Increasing public understanding of the importance and benefits of responsible cat ownership will involve consistent public messages, including messages about the legal requirements for cat owners; these messages need to come from government and animal welfare organisations, education programmes in schools and social marketing campaigns. These kinds of initiatives have been widely used to improve public understanding of human public health and welfare issues such as drink driving, cigarette smoking, skin cancer, obesity and many others.
Some progress has been made in increasing public understanding of the importance and benefits of responsible cat ownership, particularly in relationship to the impact of cats and cat caretaking practices on wildlife (Department of Sustainability and Environment 1999; Perry 1999; Chaseling 2001). This is demonstrated by a recent online survey on the attitudes of Australians (N=868) to wildlife (RSPCA QLD, 2016, unpublished data). The vast majority of respondents believed that wildlife is in danger of extinction and that predation by cats and dogs pose a major risk to wildlife (97%). There was a high level of personal concern about the level of extinction. The highest level of agreement (99%) was with the statement that human encroachment and development pose a major risk, 95% of respondents also thought that motor vehicle collisions pose a major risk and 97% believed that predation by dogs and cats was a major factor. So, there appears to be an increasing level of community concern about wildlife and the risk that cats, dogs and humans pose. Respondents' opinions on control methods for feral dogs and cats showed high levels of acceptance for reproductive control (47%) and trapping, followed by euthanasia (46%). Respondents felt that poisoning (40%), and introducing lethal diseases (41%) and new predators (54%) were unacceptable. Respondents' opinions on control methods for domestic dogs and cats showed high levels of importance placed on mandatory desexing (85%), containment of cats to the owner’s property (75%) or inside the house/an enclosure (58%), and compulsory registration of cats (63%).

**Implications for cat management**

The coordination of ongoing, consistent public messages delivered by central and local government and animal welfare organisations, education programmes in schools and social marketing campaigns is essential in maintaining progress for effective cat management. These approaches should be applied to specific areas of need such as improving cat caretaking practices to decrease cat impacts on wildlife and improve cat welfare and health.

**Facilitation of behaviour change**

Broadly, behaviour change is facilitated by changing community attitudes and beliefs relating to cats and responsible cat caretaking. The Theory of Planned Behaviour (Ajzen 1985; Ajzen 1991) has been shown to predict a number of volitional human behaviours, including behaviours towards animals (Coleman et al. 1998; Rohlf et al. 2012; Toukhatsi et al. 2012a). Modification of elements of the Theory of Planned Behaviour related to
behaviours of interest (for example, attitudes, social norms, and beliefs) has the potential to alter the behaviours (Coleman et al. 1998; Hsu et al. 2003). A 2012 Australian study about community attitudes towards cat containment and cat impacts on wildlife found agreement of only approximately 63% (owners and non-owners) that wandering cats endanger or kill native wildlife (Toukhsati et al. 2012b). It was found that 80% of cat owners contained their cat to a property at night but only 41.2% contained their cat to a property during the day. This study was a good example of the relationship between beliefs and related behaviour, as people who believed that cat containment was important (to protect their cats and wildlife) were most likely to contain their own cats.

Traditional methods used by government to change community behaviours are legislation, regulation, penalties, taxes, and subsidies. However, these may not be as successful as other methods that improve cooperative community behaviour change (Head 2008), such as education and community awareness programmes (Toukhsati et al. 2012a). This more collaborative and encouraging approach to engage stakeholders is a paradigm shift from more punitive and negative measures such as penalties and taxes.

There are a number of areas related to cat management in which there is a great need for change in community attitudes and beliefs and subsequently behaviour modification. These include:

- A better understanding and acceptance of the intrinsic value of cats
- The impact of cats and cat caretaking practices on wildlife
- Acceptance of responsible ownership and care measures such as:
  - Appropriate health care
  - Cat containment
  - Pre-pubertal desexing
  - Desexing of stray cats being cared for by a non-owner
  - Cat identification
- Awareness of the benefits to cats of the responsible ownership and care measures above and other behaviours with positive impacts on cat welfare such as providing enrichment for cats, particularly contained cats (Toukhsati et al. 2012b).
- Acceptance and implementation of pre-pubertal desexing by veterinarians on a large scale.
Implications for cat management

Regulation is an important tool as it clearly defines what is acceptable regarding legal requirements. However, legislation alone is not an effective instrument for addressing cat population, nuisance and predatory issues. Much more emphasis needs to be placed on education and community support programmes to encourage responsible cat ownership. It is also critical to have consistent laws across jurisdictions as cats do not observe council boundaries and people move residence relatively frequently, and possibly to an area where laws may be different. There may also be a perception that, if legal requirements are not imposed in some areas, then they are unimportant.

Given that domestic and feral cat issues are universal across New Zealand, a national cat management plan is needed to achieve greater consistency and collaboration with problem definition, solution development, resource sharing and impact evaluation to encompass all cat meta-populations.
### Table 3a: Potential evaluation measures for strategies to manage domestic cats - general measures

<table>
<thead>
<tr>
<th>General measures</th>
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</thead>
<tbody>
<tr>
<td>Reduced:</td>
<td></td>
</tr>
<tr>
<td>- Overall numbers of stray cats</td>
<td></td>
</tr>
<tr>
<td>- Size of individual stray cat colonies</td>
<td></td>
</tr>
<tr>
<td>- Shelter/pound admissions of companion and stray cats (socialised/unsocialised/managed/unmanaged)</td>
<td></td>
</tr>
<tr>
<td>- Shelter/pound euthanasia of companion and stray cats (socialised/unsocialised/managed/unmanaged)</td>
<td></td>
</tr>
<tr>
<td>- Nuisance complaints about cats</td>
<td></td>
</tr>
<tr>
<td>- Wildlife injuries and deaths documented by veterinarians, wildlife carer groups and shelters</td>
<td></td>
</tr>
<tr>
<td>- Animal management costs</td>
<td></td>
</tr>
<tr>
<td>Increased:</td>
<td></td>
</tr>
<tr>
<td>- Retention of companion cats</td>
<td></td>
</tr>
<tr>
<td>- Proportion of companion and stray cats desexed</td>
<td></td>
</tr>
<tr>
<td>- Community satisfaction and support for cat management</td>
<td></td>
</tr>
<tr>
<td>- Wildlife prey abundance</td>
<td></td>
</tr>
</tbody>
</table>

*From Identifying Best Practice Cat Management in Australia: A Discussion Paper (RSPCA Australia 2016)*
Table 3b: Potential evaluation measures for strategies to manage domestic cats - specific measures

<table>
<thead>
<tr>
<th>Specific measures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trap-neuter-return</td>
<td>• Reduced size of stray cat colonies</td>
</tr>
<tr>
<td>Education of stray cat carers</td>
<td>• Increased number of stray cats desexed</td>
</tr>
<tr>
<td></td>
<td>• Increased number of stray cats adopted</td>
</tr>
<tr>
<td>Reducing abandonment and surrender</td>
<td>• Increased number of companion cats surrendered to animal shelters</td>
</tr>
<tr>
<td></td>
<td>• Increased number of cat abandonment complaints received by SPCA inspectorate</td>
</tr>
<tr>
<td>Cat containment</td>
<td>• Increased uptake of cat containment</td>
</tr>
<tr>
<td></td>
<td>• Increased use of outdoor cat enclosures</td>
</tr>
<tr>
<td></td>
<td>• Increased use of environmental enrichment for contained cats</td>
</tr>
<tr>
<td>Mandatory identification</td>
<td>• Increased reclaim rates recorded by shelters, pounds and veterinarians</td>
</tr>
<tr>
<td>Mandatory registration</td>
<td>• Increased reclaim rates recorded by animal shelters and veterinarians</td>
</tr>
<tr>
<td></td>
<td>• Cat registration numbers</td>
</tr>
<tr>
<td></td>
<td>• Council income from cat registration (and application towards cat management initiatives)</td>
</tr>
<tr>
<td></td>
<td>• Expenditure of cat registration income on supporting cat management initiatives (where councils allocate funds from registration to cat management initiatives)</td>
</tr>
<tr>
<td>Mandatory desexing</td>
<td>• Increased number of companion cats desexed before sexual maturity</td>
</tr>
<tr>
<td></td>
<td>• Reduction in animal shelter/pound admissions of kittens</td>
</tr>
</tbody>
</table>
- Reduction in animal shelter/pound euthanasias of kittens
- Reduction in kittens/cats being sold/given away on trading platforms (e.g. Trade Me™ or other media)

### Targeted and affordable desexing
- Increased number of desexed cats from low income areas
- Reduction in kittens/cats being sold/given away on trading platforms (e.g. Trade Me™ or other media)
- Decreased intake to shelters

### Peri-pubertal desexing
- Increased number of cats desexed prior to sexual maturity
- Increased retention of adult cats desexed prior to sexual maturity
- Age of mother cat when kittens are surrendered to animal shelters and pounds
- Reduction in kittens/cats being sold/given away on trading platforms (e.g. Trade Me™ or other media)

### Limiting the number of cats owned
- Reduction in number of hoarding complaints dealt with by SPCA inspectorate

### Breeder regulation
- Reduction in number of breeding complaints dealt with by SPCA inspectorate
- Reduction in kittens/cats being sold/given away on trading platforms (e.g. Trade Me™ or other media)

### Education and behaviour change
- Increased support for cat management strategies

*Modified from the 'Potential evaluation measures for strategies to manage domestic cats’ table in Identifying Best Practice Cat Management in Australia: A Discussion Paper (RSPCA Australia 2016)
6. **Key roles for government, NGOs and the community**

There are many stakeholders involved in the complex situation surrounding cat management in New Zealand. Each of these stakeholders has a role to play in improving cat management.

6.1. **New Zealand Government**

It is important that the relevant Ministries and the New Zealand government take steps to address cat management in a holistic manner which addresses both feral and domestic cat management. It is of great importance that opportunities are created for national consultative groups on feral cat control and domestic cat management to discuss common issues in order to encourage greater stakeholder collaboration, and integration of initiatives. This is vitally important and will help focus attention and resources to achieve greater success. Core areas of focus should be applied to cat management: science, action and partnership. The New Zealand Government also has a role in facilitating collaborative research in areas specifically relating to feral cat control and domestic cat management, and integration of feral and domestic cat management.

**Governmental agencies involved in cat management**

Currently the agencies who should share some responsibility for cat management in New Zealand include:

- Department of Conservation
- Regional Councils
- Local Councils
- Ministry for Primary Industries
- Department of Internal Affairs
- Ministry for the Environment
- Approved Organisations
- Police
Legal reform

Legislation is often viewed as the key to resolving cat management issues but there are many reasons why mandating specific aspects of cat management can only provide part of the solution. The challenge is to identify which aspects will be most cost-effective and what other measures are required to provide an ethical, humane and sustainable approach.

It is recognised that current legislation relating to cat (domestic and feral) management is complex and sometimes confusing. Government plays an important role in reviewing and rationalising legislation to reflect best practice and community expectations to achieve consistent and effective change. This involves undertaking meaningful evaluation and public consultation.

Developing and sharing resources

Awareness and education are vital for effective cat management and having one agency coordinate the development of materials will help ensure consistency and cost-effectiveness. An example of this is found in the Australian state of South Australia where there is a Dog and Cat Management Board which has developed guidelines to assist councils to establish cat bylaws and produced resource materials promoting responsible cat ownership; these can be used by all councils and other groups including veterinarians and animal welfare organisations. This could be a role fulfilled by a cat management task force or management board in New Zealand.

Local government

Local government generally enforces domestic cat legislation and acts at the community level. Therefore, local government has a pivotal role to play in working with key community stakeholders including cat owners, cat carers, breeders, sellers, animal welfare organisations, veterinarians and conservation groups. Councils can play an important role in facilitating and coordinating community-based activities including accessible desexing schemes, promotion of responsible cat ownership, encouraging cat friendly rental accommodation and discouraging no-pet clauses in tenancy agreements and supporting cat adoption drives. Enforcement of regulations is also important but is considered secondary to the other educative and support roles the council can pursue. Another critical role for council is to liaise and collaborate with grassroots community conservation groups to support and coordinate cat management activities.
Council cat management plans

If councils develop and submit a cat management plan, these plans can incorporate priority areas, education and support programmes (e.g. accessible desexing and microchipping schemes), research and evaluation activities (examples of this occur in the Australian states of South Australia and Victoria). Councils in New Zealand undertaking this would focus attention on cats, and this would complement a national cat management plan. The Wellington City Council has proposed substantial bylaws in the absence of national laws pertaining to cat management but other New Zealand councils have few if any bylaws pertaining to cat management.

6.2. Conservation groups

In New Zealand, many conservation groups are involved in managing feral and domestic cats either directly (on privately owned land), or indirectly (through information given to supporters and the general public); this includes small local grass roots conservation groups. Conservation groups also have an important role in community engagement and, in particular, in promoting and implementing good welfare practices in relation to cat management.

6.3. Animal welfare organisations

Animal welfare organisations are on the front line of cat management in terms of managing unwanted cats brought to animal shelters and implementing community initiatives to address unwanted cats in the community. Welfare organisations also often play an important role in community education and engagement, including facilitating adoption drives, desexing programmes and promoting microchipping. In addition, animal advocacy groups can assist conservation groups and government with advice on addressing animal welfare risks associated with cat management programs.

The SPCA is the preeminent animal welfare and advocacy organisation in New Zealand but there are many other animal welfare and rescue groups throughout New Zealand that all contribute to the humane management of cats. Some are also involved in research (e.g. SPCA) and have a great reach within the community to facilitate formal studies.
6.4. Veterinarians

Veterinarians have an important role to play in the management of cats. This includes:

- Education of clients and the public about responsible cat ownership, cat impacts on wildlife, cat welfare and the need for cat management
- Encouragement of adoption of cats from welfare organisations and pounds
- Support and implementation of pre-pubertal desexing
- Support and involvement in community initiatives such as accessible desexing programmes for cats

In addition, the New Zealand Veterinary Association and New Zealand Companion Animal Council (NZCAC) play an important role in providing advice and assisting with initiatives to assist cat management.

6.5. Cat breeders

Cat breeders play an important role in educating buyers about responsible cat ownership and ensuring that all legal requirements and health requirements are met for cats and kittens sold. Responsible cat breeders have responsibilities including:

- Registering as a breeder
- Complying with the Animal Welfare (Companion Cats) Code of Welfare
- Having kittens desexed prior to transfer of ownership, unless to another registered breeder
- Complying with relevant regulations and legislation

6.6. Pet retailers and manufacturers

The Pet Industry Association of New Zealand provides advice and assists with initiatives contributing to cat management. The roles of individual businesses that sell cats and cat accessories, food and equipment include:

- Educating clients and the public about responsible cat ownership, cat impacts on wildlife, cat welfare and the need for cat management
- Supporting pre-pubertal desexing
- Supporting community initiatives such as accessible desexing programmes and low cost microchipping for cats
• Selling only desexed, vaccinated and microchipped kittens and cats from responsible breeders
• Supporting initiatives to rehome cats from animal shelters and pounds through their retail outlets

6.7. Cat owners

Cat owners have a significant role in cat management including:

• Adoption of cats from welfare organisations and pounds
• Taking responsibility for their cat by providing appropriate care to maintain health and ensure good welfare
• Preventing or mitigating the negative impact of their cat on wildlife through effective containment and/or anti-predation devices
• Identification of their cat with a microchip and external identification
• Desexing their cat before sexual maturity to avoid unwanted litters of kittens unless they are a registered breeder
• Complying with the Animal Welfare (Companion Cats) Code of Welfare
• Having any cats/kittens desexed prior to transfer of ownership, unless to a registered breeder
• Compliance with relevant regulations and legislation

6.8. Stray cat carers

Stray cat carers have a very significant role in cat management including:

• Taking responsibility for the cats they care for, including providing appropriate health care and euthanasia when required. This must also include recognising the cats' potential to contribute to cat overpopulation and impact on wildlife.
• Mitigating the negative impact of the cats they care for on wildlife through the use of effective anti-predation devices
• Desexing the cats they care for before the cats reach sexual maturity to avoid breeding
• Supporting community initiatives to reduce the number of unwanted cats, such as accessible desexing programmes and TNR programs
• Helping to educate other cat carers about the impact of cats on wildlife and what can be done to mitigate these impacts
• Identification of the cats they care for with a microchip and external identification

6.9. People who neither own nor care for cats

Even people who neither own nor care for cats have a role to play in cat management including:

• Supporting community initiatives to reduce the number of unwanted cats, such as accessible desexing programmes and TNR programmes
• Treating cats with kindness, care and respect
• Helping to educate cat owners and cat carers about the impact of cats on communities and wildlife, and what can be done to mitigate these impacts

7. Future assessment and evaluation of cat management strategies

The body of evidence related to cat management is increasing but there is much information still needed in order to inform best practice cat management. A key problem is the lack of credible information to help define the problem and monitor management strategies; many of the strategies that are theorised to be effective in controlling cat populations have not been implemented, formally assessed and reported on.

There are currently few formal assessments of the impact of specific cat management strategies on wildlife predation by cats, unwanted cat numbers, animal shelter intakes, shelter euthanasia numbers, and nuisance complaints. Reported data are either compilations of (sometimes diverse and inaccurate) data from different animal welfare organisations and animal control agencies or extrapolations from more local data from animal welfare organisations and animal control agencies. The few existing assessments relate to the impact of desexing initiatives (and TNR programmes in overseas countries) on animal shelter cat intake and euthanasia numbers and the increase in reclaim rates associated with identification of cats. There is a need to set clear and measurable objectives for initiatives and transparently report formal assessment based on the objectives.
Table 3 sets out a series of measures that could be used to evaluate the overall success of cat management strategies, as well as a number of measures specific to individual strategies. Evaluation of the success of cat management programmes should include pre- and post-implementation monitoring using specific measures such as those in the table.

Successful long term cat management will be assisted by the collection, analysis and reporting of accurate data about many different facets of cat management, including but not limited to:

- Assessment of the impact of legislation on stray cat numbers, nuisance complaints, wildlife predation, animal shelter intakes and euthanasia rates.
- The impact of TNR programmes on wildlife, as well as the number of stray cats, stray cat admissions to animal shelters/pounds and stray cat euthanasia.
- The effect that desexing has on cat behaviour and how this might influence cat population dynamics. It is commonly theorised that desexed cats occupy space within a cat population and prevent other entire cats from entering that area but there is no data available to substantiate this theory (Miller et al. 2014b; Miller et al. 2014a).
- Typical cat dispersal rates, dispersal rates under different conditions, and the survival rates of dispersing cats (Miller et al. 2014b; Miller et al. 2014a).
- New Zealanders’ attitudes towards, and interactions with, stray cats including the intentions of stray cat carers.
- New Zealander’s preferences for and opinions about cat management.
- Investigation of strategies to best help cats and cat owners transition to and manage containment and ensure good cat welfare.
- Determination of which cat management strategies are the most effective whilst ensuring high welfare standards and minimising the need for lethal control of cats.
- Evidence of the impact that companion and stray cats are having on New Zealand native species and ecosystems.
- Typical cat abandonment rates under different conditions and the socio-economic and attitudinal factors that contribute to higher abandonment rates and prevention of abandonment is needed (Miller et al. 2014b; Miller et al. 2014a). Effective management of a cat population requires that immigration into the cat colony is prevented, or at least reduced and in order to achieve this cat
abandonment must be low. Therefore, the factors contributing to it must be better understood.

- Determination of whether intensely managing cats within a small part of the meta-population or managing a larger part of the meta-population at lower intensity is more effective at controlling the cat population (Miller et al. 2014b; Miller et al. 2014a).

- The barriers to carers desexing the stray cats they care for.

- More humane methods of feral and stray cat management, particularly non-surgical reproductive control.
Figure 4: Cat management flow chart for cats found free roaming based on proposed cat population categories
### Table 4: Comparison of potential strategies for domestic cat management

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Measurable?</th>
<th>Effective at reducing cat overpopulation?*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stray cats</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adoption</td>
<td>Yes</td>
<td>Yes – but only in combination with other approaches</td>
</tr>
<tr>
<td>Trap-and-kill</td>
<td>Yes</td>
<td>No – based on existing data and measured against population</td>
</tr>
<tr>
<td>Trap-neuter-return</td>
<td>Yes</td>
<td>Potentially – but lack of New Zealand data, especially on wildlife impact</td>
</tr>
<tr>
<td>Targeted desexing</td>
<td>Yes</td>
<td>Yes – in combination with TNR</td>
</tr>
<tr>
<td>Educational strategies</td>
<td>Yes</td>
<td>Potentially, if targeted at semi-owners</td>
</tr>
<tr>
<td><strong>Owned cats</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reducing cat surrender and abandonment</td>
<td>Yes</td>
<td>Yes – with help of animal welfare organisations and through enforcement and incorporation into cat management legislation</td>
</tr>
<tr>
<td>Containment</td>
<td>Yes</td>
<td>Potentially – if strict 24-hour containment in combination with mandatory identification and strategies to control stray cats</td>
</tr>
<tr>
<td>Mandatory identification</td>
<td>Yes</td>
<td>Yes – especially if used with collar and tag requirements</td>
</tr>
<tr>
<td>Mandatory desexing</td>
<td>Yes</td>
<td>Potentially - if pre-pubertal desexing and aimed at desexing prior to sale/transfer/return and if adequately enforced</td>
</tr>
<tr>
<td>Targeted and affordable desexing</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pre-pubertal desexing</td>
<td>Yes</td>
<td>Potentially – theoretically effective but not yet adequately assessed</td>
</tr>
<tr>
<td>Registration</td>
<td>Yes</td>
<td>No – but may assist indirectly where funds are directed to cat management activities</td>
</tr>
<tr>
<td>Limiting cat ownership</td>
<td>Yes</td>
<td>No – but may assist in reducing public nuisance from cats, kitten farms and resolving animal hoarding cases</td>
</tr>
<tr>
<td>Breeding regulation</td>
<td>Yes – but difficult</td>
<td>No – except in specific kitten breeding circumstances</td>
</tr>
<tr>
<td>Educational strategies</td>
<td>Yes – but difficult</td>
<td>Yes – if applied to specific areas of need</td>
</tr>
<tr>
<td>Facilitation of behaviour change</td>
<td>Yes – but difficult</td>
<td>Potentially - if encouraged and resourced at the national level</td>
</tr>
</tbody>
</table>

*Modified from the 'Comparison of potential strategies for domestic cat management' table in Identifying Best Practice Cat Management in Australia. A Discussion Paper (RSPCA Australia 2016 (in press))

**NOTE:** all these strategies require further research to obtain more data
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Appendix 1: Existing legislative, regulatory and educative framework relating to cat management in New Zealand

The Animal Welfare Act 1999 (current as at 1 March 2017)

An Act—

(a) to reform the law relating to the welfare of animals and the prevention of their ill-treatment; and, in particular,—

(i) to recognise that animals are sentient:

(ia) to require owners of animals, and persons in charge of animals, to attend properly to the welfare of those animals:

(ii) to specify conduct that is or is not permissible in relation to any animal or class of animals:

(iii) to provide a process for approving the use of animals in research, testing, and teaching:

(iv) to establish a National Animal Welfare Advisory Committee and a National Animal Ethics Advisory Committee:

(v) to provide for the development and issue of codes of welfare and the approval of codes of ethical conduct:

(b) to repeal the Animals Protection Act 1960


Definitions: (section 2 of the Act: Interpretation)

Companion cats fall under the protection and enforcement of the Animal Welfare Act 1999 as it defines an animal in Section 2(1)(a)(i):

Animal –

(a) means any live member of the animal kingdom that is-

(i) a mammal

Owner is defined in the Act section 2 as:

-in relation to an animal, includes the parent or guardian of a person under the age of 16 years who-

(a) owns the animal; and
(b) is a member of the parent’s or guardian’s household living with and dependent on the parent or guardian.

Person in charge is defined in the Act section 2 as:

-in relation to an animal, a person who has the animal in that person’s possession or custody, or under that person’s care, control, or supervision.

**Part 1: Care of animals**

**9 Purpose**

(1) The purpose of this Part is to ensure that owners of animals and persons in charge of animals attend properly to the welfare of those animals.

(2) This Part accordingly—

(a) requires owners of animals, and persons in charge of animals, to take all reasonable steps to ensure that the physical, health, and behavioural needs of the animals are met in accordance with both—

(i) good practice; and

(ii) scientific knowledge; and

(b) requires owners of ill or injured animals, and persons in charge of such animals, to ensure that the animals receive treatment that alleviates any unreasonable or unnecessary pain or distress from which the animals are suffering; and

(c) imposes restrictions on the carrying out of surgical procedures on animals; and

(d) provides for the classification of the types of surgical procedures that may be performed on animals; and

(e) specifies the persons or classes of persons who may perform each class of such surgical procedures; and

(f) specifies certain minimum conditions that must be observed in relation to the transportation of animals.

Obligations of owners and of persons in charge of animals

10 Obligation in relation to physical, health, and behavioural needs of animals

The owner of an animal, and every person in charge of an animal, must ensure that the physical, health, and behavioural needs of the animal are met in a manner that is in accordance with both—

(a) good practice; and

(b) scientific knowledge.

11 Obligation to alleviate pain or distress of ill or injured animals

(1) The owner of an animal that is ill or injured, and every person in charge of such an animal, must ensure that the animal receives treatment that alleviates any unreasonable or unnecessary pain or distress being suffered by the animal.

(2) This section does not—

(a) limit section 10; or

(b) require a person to keep an animal alive when it is in such a condition that it is suffering unreasonable or unnecessary pain or distress.


Offences

12 Animal welfare offences

A person commits an offence who, being the owner of, or a person in charge of, an animal,—

(a) fails to comply, in relation to the animal, with section 10; or

(b) fails, in the case of an animal that is ill or injured, to comply, in relation to the animal, with section 11; or

(c) kills the animal in such a manner that the animal suffers unreasonable or unnecessary pain or distress.

Compare: 1960 No 30 s 3(b); 1983 No 141 s 3(1)

13 Strict liability

(1) In a prosecution for an offence against section 12, it is not necessary for the prosecution to prove that the defendant intended to commit an offence.
(1A) In a prosecution for an offence against section 12 committed after the commencement of this subsection, evidence that a relevant code of welfare was in existence at the time of the alleged offence and that a relevant minimum standard established by that code was not complied with is rebuttable evidence that the person charged with the offence failed to comply with, or contravened, the provision of this Act to which the offence relates.

(2) Subject to subsection (3), it is a defence in any prosecution for an offence against section 12 if the defendant proves—

(a) that, in relation to the animal to which the prosecution relates, the defendant took,—

(i) in the case of an offence against section 12(a), all reasonable steps to comply with section 10; or

(ii) in the case of an offence against section 12(b), all reasonable steps to comply with section 11; or

(iii) in the case of an offence against section 12(c), all reasonable steps not to commit a breach of section 12(c); or

(b) that the act or omission constituting the offence took place in circumstances of stress or emergency, and was necessary for the preservation, protection, or maintenance of human life; or

(c) that there was in existence at the time of the alleged offence a relevant code of welfare and that the minimum standards established by the code of welfare were in all respects equalled or exceeded.

(3) Except with the leave of the court, subsection (2) does not apply unless, within 7 days after the service of the summons, or within such further time as the court may allow, the defendant has delivered to the prosecutor a written notice—

(a) stating that the defendant intends to rely on subsection (2); and

(b) specifying—

(i) where the defendant intends to rely on subsection (2)(a), the reasonable steps that the defendant will claim to have taken; or

(ii) where the defendant intends to rely on subsection (2)(b), the circumstances of stress or emergency, and the reasons why the act or omission was necessary for the preservation, protection, or maintenance of human life; or
(iii) where the defendant intends to rely on subsection (2)(c), the relevant code of welfare that was in existence at the time of the alleged offence, and the facts that show that the minimum standards established by that code of welfare were in all respects equalled or exceeded.


14 Further animal welfare offences

(1) A person commits an offence who, being the owner of, or a person in charge of, an animal, without reasonable excuse,—

(a) keeps the animal alive when it is in such a condition that it is suffering unreasonable or unnecessary pain or distress; or

(b) sells, attempts to sell, or offers for sale, otherwise than for the express purpose of being killed, the animal when it is suffering unreasonable or unnecessary pain or distress.

(2) A person commits an offence who, being the owner of, or person in charge of, an animal, without reasonable excuse, deserts the animal in circumstances in which no provision is made to meet its physical, health, and behavioural needs.

Compare: 1960 No 30 s 3(j), (k), (p); 1964 No 76 s 2; 1983 No 141 s 3(2)

Part 2: Conduct towards animals

27 Purpose

The purpose of this Part is to state conduct that is or is not permissible in relation to a species of animal or animals used for certain purposes—

(a) by prohibiting certain types of conduct; and

(b) by controlling the use and sale of traps and devices used to kill, manage, entrap, capture, entangle, restrain, or immobilise an animal.

Ill-treatment of animals

28 Wilful ill-treatment of animals

(1) A person commits an offence if that person wilfully ill-treats an animal with the result that—
(a) the animal is permanently disabled; or

(b) the animal dies; or

(c) the pain or distress caused to the animal is so great that it is necessary to destroy the animal in order to end its suffering; or

(d) the animal is seriously injured or impaired.

(2) For the purposes of subsection (1)(d), an animal is seriously injured or impaired if the injury or impairment—

(a) involves—

   (i) prolonged pain and suffering; or

   (ii) a substantial risk of death; or

   (iii) loss of a body part; or

   (iv) permanent or prolonged loss of a bodily function; and

(b) requires treatment by or under the supervision of a veterinarian.

(3) A person who commits an offence against this section is liable on conviction,—

(a) in the case of an individual, to imprisonment for a term not exceeding 5 years or to a fine not exceeding $100,000 or to both:

(b) in the case of a body corporate, to a fine not exceeding $500,000.

Compare: 1960 No 30 ss 2, 4; 1993 No 19 s 3(1)

Section 28: substituted, on 7 July 2010, by section 5 of the Animal Welfare Amendment Act 2010 (2010 No 93).

Section 28(3): amended, on 1 July 2013, by section 413 of the Criminal Procedure Act 2011 (2011 No 81).

28A Reckless ill-treatment of animals

(1) A person commits an offence if that person recklessly ill-treats an animal with the result that—

(a) the animal is permanently disabled; or

(b) the animal dies; or
(c) the pain or distress caused to the animal is so great that it is necessary to destroy the animal in order to end its suffering; or

(d) the animal is seriously injured or impaired.

(2) For the purposes of subsection (1)(d), an animal is seriously injured or impaired if the injury or impairment—

(a) involves—

(i) prolonged pain and suffering; or

(ii) a substantial risk of death; or

(iii) loss of a body part; or

(iv) permanent or prolonged loss of a bodily function; and

(b) requires treatment by or under the supervision of a veterinarian.

(3) A person who commits an offence against this section is liable on conviction,—

(a) in the case of an individual, to imprisonment for a term not exceeding 3 years or to a fine not exceeding $75,000 or to both:

(b) in the case of a body corporate, to a fine not exceeding $350,000.

Section 28A: inserted, on 7 July 2010, by section 5 of the Animal Welfare Amendment Act 2010 (2010 No 93).

Section 28A(3): amended, on 1 July 2013, by section 413 of the Criminal Procedure Act 2011 (2011 No 81).

29 Further offences

A person commits an offence who—

(a) ill-treats an animal; or

(b) pierces the tongue or tongue phrenum of an animal with a pig ring or similar thing or with any wire; or

(c) keeps or uses a place for the purpose of causing an animal to fight, or for the purpose of baiting or otherwise ill-treating an animal, or manages or assists in the management of, any such place; or
(d) is present, for the purpose of witnessing the fighting or baiting of an animal, at a place used or kept for the purpose; or

(e) in any manner encourages, aids, or assists in the fighting or baiting of an animal; or

(f) brands any animal in such a manner that the animal suffers unreasonable or unnecessary pain or distress; or

(g) releases an animal, being an animal that has been kept in captivity, in circumstances in which the animal is likely to suffer unreasonable or unnecessary pain or distress; or

(h) counsels, procures, aids, or abets any other person to do an act or refrain from doing an act as a result of which an animal suffers unreasonable or unnecessary pain or distress.

Compare: 1960 No 30 s 3(a), (c), (d), (e), (f), (u), (w)

30 Strict liability

(1) In a prosecution for an offence against section 29(a), it is not necessary for the prosecution to prove that the defendant intended to commit an offence.

(1A) In a prosecution for an offence against section 29(a) committed after the commencement of this subsection, evidence that a relevant code of welfare was in existence at the time of the alleged offence and that a relevant minimum standard established by that code was not complied with is rebuttable evidence that the person charged with the offence contravened section 29(a).

(2) Subject to subsection (3), it is a defence in any prosecution for an offence against section 29(a) if the defendant proves—

   (a) that, in relation to the animal to which the prosecution relates, the defendant took all reasonable steps not to commit a breach of section 29(a); or

   (b) that the act or omission constituting the offence took place in circumstances of stress or emergency, and was necessary for the preservation, protection, or maintenance of human life; or

   (c) that there was in existence at the time of the alleged offence a relevant code of welfare and that the minimum standards established by the code of welfare were in all respects equalled or exceeded.

(3) Except with the leave of the court, subsection (2) does not apply unless, within 7 days after the service of the summons, or within such further time as the court may allow, the defendant has delivered to the prosecutor a written notice—
(a) stating that the defendant intends to rely on subsection (2); and

(b) specifying—

(i) where the defendant intends to rely on subsection (2)(a), the reasonable steps that the defendant will claim to have taken; and

(ii) where the defendant intends to rely on subsection (2)(b), the circumstances of stress or emergency, and the reasons why the act or omission was necessary for the preservation, protection, or maintenance of human life; or

(iii) where the defendant intends to rely on subsection (2)(c), the relevant code of welfare that was in existence at the time of the alleged offence, and the facts that show that the minimum standards established by that code of welfare were in all respects equalled or exceeded.


*Ill-treating, hunting, or killing wild animals or animals in wild state*


**30A Wilful or reckless ill-treatment of wild animals or animals in wild state**

(1) A person commits an offence if the person wilfully ill-treats a wild animal or an animal in a wild state.

(2) A person commits an offence if the person recklessly ill-treats a wild animal or an animal in a wild state.

(3) A defendant has a defence to a prosecution for an offence against subsection (1) or (2) if the defendant satisfies the court that the conduct alleged to constitute an offence is or is part of a generally accepted practice in New Zealand for the hunting or killing of wild animals of that type or animals in a wild state of that type.

(4) In determining whether wilful or reckless ill-treatment of an animal has occurred, a court may treat an act or omission as lawful (and not subject to subsection (1) or (2)) if satisfied that—

(a) the act or omission was done in the course of performing functions for the purposes of another Act; and
(b) not to treat the act or omission as lawful would be contrary to the purpose and principles of that Act.

(5) Nothing in subsection (1) or (2) applies to—

(a) a wild animal in captivity (other than in captivity in a safari park); or

(b) the accidental or inadvertent killing or harming of an animal; or

(c) any act or omission necessary to protect a person’s life or safety.

(6) Nothing in subsection (1) or (2) affects section 179 or 181.

(7) A person who commits an offence against subsection (1) is liable on conviction,—

(a) in the case of an individual, to imprisonment for a term not exceeding 5 years or to a fine not exceeding $100,000, or to both:

(b) in the case of a body corporate, to a fine not exceeding $500,000.

(8) A person who commits an offence against subsection (2) is liable on conviction,—

(a) in the case of an individual, to imprisonment for a term not exceeding 3 years or to a fine not exceeding $75,000, or to both:

(b) in the case of a body corporate, to a fine not exceeding $350,000.


30B Hunting or killing

(1) Nothing in this Act makes it unlawful to hunt or kill—

(a) any animal in a wild state; or

(b) any wild animal or pest in accordance with the provisions of—

(i) the Wildlife Act 1953; or

(ii) the Wild Animal Control Act 1977; or

(iii) the Conservation Act 1987; or

(iv) the Biosecurity Act 1993; or

(v) any other Act; or

(c) any other wild animal or pest; or
(d) any game animal in accordance with the provisions of the Game Animal Council Act 2013; or

(e) any fish caught from a constructed pond.

(2) Subsection (1) is subject to sections 30A and 30C to 30E and Part 6.

Compare: 1960 No 30 s 19(1)(c), (2)

Section 30B: inserted, on 10 May 2015, by section 20 of the Animal Welfare Amendment Act (No 2) 2015 (2015 No 49).

30D Captured animals

(1) If a person has in captivity an animal captured in a wild state (not being an animal that has been captured for the purpose of facilitating its imminent destruction), this Act applies in relation to that person as the person in charge of that animal.

(2) If a person has in captivity an animal captured in a wild state (not being an animal caught by fishing) for the purpose of facilitating its imminent destruction, section 12(c) applies in relation to the killing of that animal.

(3) Nothing in subsection (1) or (2) applies in relation to a wild animal that is hunted and captured in a safari park.

(4) Nothing in section 30B applies to any wild animal or pest that is farmed or kept as a pet (other than a pest fish that is caught from a freshwater fish farm by a recreational fisher).


30E Certain provisions relating to traps and devices not excluded

Sections 30B and 30C do not restrict the application of sections 34 and 36.


Traps and devices

32 Power to declare traps or devices to be prohibited or restricted traps or devices

(1) For the purposes of this Act, the Governor-General may from time to time, by Order in Council, made on the advice of the Minister tendered after consultation by that Minister with the National Animal Welfare Advisory Committee, declare any trap or device to be—
(a) a prohibited trap or a prohibited device; or

(b) a restricted trap or a restricted device.

(2) Subsection (1) does not authorise the making of an order in respect of any trap or device used for fishing.

(3) Subsection (2) does not derogate from the provisions of—

(a) the Wildlife Act 1953; or

(b) the Marine Mammals Protection Act 1978; or

(c) the Fisheries Act 1996.

(4) Where the order declares any trap to be a restricted trap or any device to be a restricted device, the order may contain provisions regulating the sale or use of the trap or device.

(5) An order may be general in its application or may relate to a particular trap or class of traps or a particular device or class of devices.

(5A) An order relating to a restricted trap or class of traps, or a restricted device or class of devices, may relate to—

(a) the use of a particular trap or class of traps, or a particular device or class of devices, in relation to a particular species or type of animal:

(b) a specified district or subdivision of a district of a territorial authority, or any specified part of New Zealand.

(6) The Governor-General may, by Order in Council, made on the advice of the Minister tendered after consultation with the National Animal Welfare Advisory Committee, amend or revoke an Order in Council made under subsection (1).

(7) The consultation required by section 184(1) is in addition to the consultation required by subsections (1) and (6) of this section.

(8) An Order in Council made under this section is a legislative instrument and a disallowable instrument for the purposes of the Legislation Act 2012 and must be presented to the House of Representatives under section 41 of that Act.


Section 32(8): replaced, on 5 August 2013, by section 77(3) of the Legislation Act 2012 (2012 No 119).

34 Restrictions on use of traps and devices to kill, manage, entrap, capture, entangle, restrain, or immobilise animals

A person commits an offence who, without reasonable excuse and for the purpose of killing, managing, entrapping, capturing, entangling, restraining, or immobilising an animal,—

(a) uses a prohibited trap or a prohibited device; or

(b) uses a restricted trap or a restricted device in contravention of any provision of an Order in Council made under section 32.

35 Restrictions on sale of traps and devices

(1) A person commits an offence who, without reasonable excuse, sells, attempts to sell, or offers or exposes for sale, a prohibited trap or a prohibited device.

(2) A person commits an offence who, in selling a restricted trap or a restricted device, contravenes, without reasonable excuse, any provision of any Order in Council made under section 32.

Inspection of traps

36 Obligations relating to traps

(1) A person who, for the purpose of capturing alive a mammal, bird, reptile, or amphibian, sets a trap or causes a trap to be set must inspect that trap, or cause a competent person to inspect that trap, within 12 hours after sunrise on each day the trap remains set, beginning on the day immediately after the day on which the trap is set.

(2) A person who, for the purpose of capturing alive a mammal, bird, reptile, or amphibian, sets a trap or causes a trap to be set must—

(a) remove, or cause to be removed, any live animal found in that trap; or

(b) attend properly to the care of the animal or, without delay, kill the animal.
(3) A person who, without reasonable excuse, fails to comply with subsection (1) commits an infringement offence.

(4) A person who, without reasonable excuse, fails to comply with subsection (2) commits an offence and is liable on conviction,—

(a) in the case of an individual, to a fine not exceeding $5,000; or

(b) in the case of a body corporate, to a fine not exceeding $25,000.


Penalties

37 Penalties

A person who commits an offence against section 29 or section 31(1) or section 34 or section 35(1) or section 35(2) is liable on conviction,—

(a) in the case of an individual, to imprisonment for a term not exceeding 12 months or to a fine not exceeding $50,000 or to both; and

(b) in the case of a body corporate, to a fine not exceeding $250,000.

Compare: 1960 No 30 s 3; 1993 No 19 s 3(1)

Section 37: amended, on 1 July 2013, by section 413 of the Criminal Procedure Act 2011 (2011 No 81).

Section 37(a): amended, on 7 July 2010, by section 6(1)(a) of the Animal Welfare Amendment Act 2010 (2010 No 93).

Section 37(a): amended, on 7 July 2010, by section 6(1)(b) of the Animal Welfare Amendment Act 2010 (2010 No 93).

Section 37(b): amended, on 7 July 2010, by section 6(2) of the Animal Welfare Amendment Act 2010 (2010 No 93).

Part 7: Provisions relating to administration

120 Purpose
The purpose of this Part is to—

(a) specify the criteria for an organisation to be declared as an approved organisation; and

(b) provide for the appointment of inspectors and auxiliary officers; and

(c) specify the powers and duties of approved organisations in relation to animals in their custody; and

(d) specify the powers of inspectors and auxiliary officers, including their powers of search and their powers in relation to animals.

Powers in relation to injured or sick animals

138 Destruction of injured or sick animals (other than marine mammals)

(1) If an inspector, auxiliary officer, or a veterinarian finds a severely injured or sick animal (other than a marine mammal), and in his or her opinion, the animal should be destroyed because reasonable treatment will not be sufficient to make the animal respond and the animal will suffer unreasonable or unnecessary pain or distress if it continues to live, he or she must, as soon as possible,—

(a) consult with the owner of that animal, if that owner can be found within a reasonable time; and

(b) if the owner asks for a second opinion from a veterinarian as to whether that animal should be destroyed, allow the owner to obtain that second opinion.

(2) If—

(a) the owner of a severely injured or sick animal cannot be found within a reasonable time; or

(b) the owner of a severely injured or sick animal—

(i) does not, on being found, agree to the destruction of the animal; and

(ii) does not obtain within a reasonable time a second opinion from a veterinarian as to whether the animal should be destroyed,—

the inspector, or auxiliary officer, or veterinarian, as the case may be, must, without delay, destroy that animal or cause it to be destroyed.
(3) If the owner of a severely injured or sick animal is found and consulted under subsection (1), and agrees that the animal should be destroyed,—

(a) the inspector, auxiliary officer, or veterinarian, as the case may be, must, without delay, destroy that animal or cause it to be destroyed; or

(b) the owner of that animal must, without delay, destroy that animal or cause it to be destroyed.

(4) If the owner obtains a second opinion under subsection (1)(b), and the veterinarian giving that opinion agrees that the animal should be destroyed,—

(a) the inspector, auxiliary officer, or veterinarian as the case may be, must, without delay, destroy that animal or cause it to be destroyed; or

(b) the owner of that animal must, without delay, destroy that animal or cause it to be destroyed.

(5) Where, under this section, an inspector, auxiliary officer, or veterinarian destroys an animal or causes it to be destroyed, he or she may dispose of the carcass in such manner as he or she thinks fit.

Compare: 1960 No 30 s 12(3); 1962 No 55 s 2(1)


139 Destruction of impounded animals that are diseased, injured, or sick

Despite section 138, if—

(a) an inspector, auxiliary officer, or veterinarian certifies in writing that an animal impounded in a pound under the Impounding or the Dog Control Act 1996 is so diseased, injured, or sick that it is in a state of continual suffering; and

(b) the territorial authority having jurisdiction over the pound is unable to find the owner of that animal within a reasonable time after the inspector, auxiliary officer, or veterinarian has given such a certificate,—

the territorial authority must, without delay, destroy that animal or cause it to be destroyed.

Compare: 1960 No 30 s 12(6)
Disposal of animals in custody of approved organisations

141 Duties of approved organisation

(1) Where a person (other than the owner of an animal) gives that animal into the custody of an approved organisation and that approved organisation accepts custody of that animal, or where an approved organisation takes any animal into its custody, that approved organisation—

   (a) must take reasonable steps to identify the owner of the animal; and

   (b) may take such steps as it considers necessary or desirable to prevent or mitigate any suffering of the animal.

(1A) Subsection (1B) applies if—

   (a) an owner of an animal, or a person acting as the agent of an owner of an animal, gives the animal into the temporary custody of an approved organisation; and

   (b) an arrangement exists for the return of the animal to the owner or the owner’s agent; and

   (c) the owner or the owner’s agent does not return to reclaim custody of that animal as agreed.

(1B) If this subsection applies, the approved organisation may sell, re-home, or dispose of (including destroy) the animal in any manner that an inspector or auxiliary officer acting for the organisation thinks fit if—

   (a) the approved organisation has taken reasonable steps to locate and contact the owner; and

   (b) either—

      (i) the approved organisation has been unable to locate or contact the owner; or

      (ii) the approved organisation has located and attempted to contact the owner, but the owner will not respond; and

   (c) the approved organisation has given the owner written notice of its intention to sell, re-home, or otherwise dispose of (including destroy) the animal in accordance with the provisions of subsection (3); and

   (d) the owner has not, within the period specified in the notice, reclaimed the animal and paid any costs incurred by the organisation and specified in the notice.
(2) Where the approved organisation cannot identify the owner of the animal, an inspector or auxiliary officer acting for the approved organisation may—

(a) after the animal has been in the custody of the organisation for at least 7 days,—

(i) sell the animal; or

(ii) find a home for the animal; or

(iii) destroy or otherwise dispose of the animal in such manner as the inspector or auxiliary officer thinks fit:

(aa) at any time, sell, re-home, or otherwise dispose of (including destroy) the animal in any manner that the inspector or auxiliary officer thinks fit if—

(i) the animal is wild or unsocialised; and

(ii) the animal is severely distressed; and

(iii) in the opinion of a veterinarian, the animal’s distress is a direct result of being contained to the extent that it would be unreasonable and unnecessary to continue to contain the animal:

(b) at any time, in any case where the animal is diseased or is suspected of being diseased and the inspector or auxiliary officer has reasonable grounds to believe that the welfare of other animals in the custody of the approved organisation would be compromised if the organisation were to continue to hold that animal in custody,—

(i) sell the animal; or

(ii) find a home for the animal; or

(iii) destroy or otherwise dispose of the animal in such manner as the inspector or auxiliary officer thinks fit.

(3) Where the approved organisation both identifies the owner of the animal and knows the address of the owner of the animal, the approved organisation must give to the owner a written notice informing the owner that the approved organisation is holding the animal in its custody and that, unless the owner, within 7 days of the receipt of that notice, claims the animal and pays any costs incurred by the approved organisation in caring for the animal or in providing veterinary treatment to the animal (being costs that the approved organisation wishes to claim), the approved organisation may—

(a) sell the animal; or
(b) find a home for the animal; or

(c) destroy or otherwise dispose of the animal in such manner as the inspector or auxiliary officer thinks fit.

(4) If the owner does not, within the period specified in the notice, claim the animal and pay any costs incurred by the approved organisation and specified in the notice, an inspector or auxiliary officer acting for the approved organisation may—

(a) sell the animal; or

(b) find a home for the animal; or

(c) destroy or otherwise dispose of the animal in such manner as the inspector or auxiliary officer thinks fit.

(5) Where an animal is sold under subsection (1B), (2), or (4), the approved organisation must, after deducting any costs incurred by the approved organisation in caring for the animal or providing veterinary treatment to the animal, apply the proceeds of the sale towards the costs of the animal welfare work of the approved organisation.

(6) In this section, the term animal does not include—

(a) a native animal; or

(b) stock within the meaning of section 2(1) of the Impounding Act 1955.

Section 141(1A): inserted, on 10 May 2015, by section 54(1) of the Animal Welfare Amendment Act (No 2) 2015 (2015 No 49).

Section 141(1B): inserted, on 10 May 2015, by section 54(1) of the Animal Welfare Amendment Act (No 2) 2015 (2015 No 49).


142 Obligation to maintain register
(1) An approved organisation must record in a register the numbers and types of animals sold, re-homed, destroyed, or otherwise disposed of under section 141, and include in that register, in relation to each animal,—

(a) particulars of the date when custody of the animal was obtained and of the date when the animal was disposed of; and

(b) a record of whether the animal was sold, re-homed, destroyed, or otherwise disposed of.

(2) The records in relation to each animal must be kept for at least 1 year after the date on which the approved organisation obtained custody of the animal.


The obligations and restrictions on conduct towards cats stated in the Animal Welfare Act 1999 for cat owners and persons in charge are further described in the Animal Welfare (Companion Cats) Code of Welfare (hereafter the Code):

The Code’s purpose is to give detail to the obligations and restrictions of the Act as they pertain to companion cats. It applies to, ‘all persons responsible for the welfare of companion cats including cats in, breeding establishments, boarding catteries, animal welfare shelters and pet shops’.

The Code presents this detail in subject sections that include both; ‘Minimum Standards’, (what is required care and behaviour to stay in compliance with the Act); and ‘Recommended Best Practice’ (standards of care and conduct over and above the minimum required to meet the obligations in the Act. They are included for educational and information purposes only and may not be required by the Act at that point in time). Only the Minimum Standards have legal effect. They can be used as both a defence for those charged with an offence against the Act and as evidence to support a prosecution for an offence under the Act.

A simplified version of the obligations and restrictions on conduct towards cats stated in the Animal Welfare Act 1999 is also contained within Section 2 of the Animal Welfare (Companion Cats) Code of Welfare beginning with the statement that;

‘The owner or person in charge of a cat has overall responsibility for the welfare of the cat in his or her care’.

Obligations: (Interpreted towards companion cats from Part 1 of the Act)

(a) The owner or person in charge of a cat must:
(i) ensure that the physical, health and behavioural needs* of the cat are met in a manner that is in accordance with both good practice and scientific knowledge (s10)

(ii) ensure that a cat that is ill or injured receives treatment that will alleviate any unreasonable or unnecessary pain or distress being suffered by the cat or that it is killed humanely. (s11, AWA 1999)

(b) The owner or person in charge of a cat must not without reasonable excuse:

(i) keep a cat alive when it is in such a condition that it is suffering unreasonable or unnecessary pain or distress. (s14(1)(a), AWA 1999)

(ii) sell, attempt to sell or offer for sale, otherwise than for the express purpose of being killed, a cat, when it is suffering unreasonable or unnecessary pain or distress (s14(1)(b))

(iii) desert a cat in circumstances in which no provision is made to meet its physical, health and behavioural needs. (s14(2), AWA 1999)

(iv) kill a cat in such a manner that the cat suffers unreasonable or unnecessary pain or distress. (12(c), AWA 1999)

Restrictions on Conduct: (As laid out in Part 2 of the Act)

(c) No person may:

(i) ill-treat** a cat (s28, 28A and 29(a), AWA 1999)

(ii) release a cat that has been kept in captivity, in circumstances in which the cat is likely to suffer unreasonable or unnecessary pain or distress (29(g), AWA 1999)

(ii) perform any significant surgical procedure on a cat unless that person is a veterinarian, or a veterinary student under the direct supervision of a veterinarian or, in the case of a controlled surgical procedure, a person approved by a veterinarian (s15(1))

(iv) perform on a cat a surgical procedure that is not a significant surgical procedure (as defined by the Act) in such a manner that the cat suffers unreasonable or unnecessary pain or distress (15(4), AWA 1999)

*Physical, health and behavioural need of the animal: (as defined in section 4 of the Act)

(a) proper and sufficient food:

(ab) proper and sufficient water:
(b) adequate shelter:

(c) opportunity to display normal patterns of behaviour:

(d) physical handling in a manner which minimises the likelihood of unreasonable or unnecessary pain or distress:

(e) protection from, and rapid diagnosis of, any significant injury or disease,—

being a need which, in each case, is appropriate to the species, environment, and circumstances of the animal.

**Ill-treat: (as defined in section 2 of the Act)

'causing the animal to suffer, by any act or omission, pain or distress that in its kind or degree, or in its object, or in the circumstances in which it is inflicted, is unreasonable or unnecessary' (s2, AWA 1999)


Minimum Standard No. 1 – Food and Feeding

(a) Kittens that have been weaned must be fed a minimum of twice a day.

(b) Cats over the age of 6 months must be fed at least once a day.

(c) Cats must receive adequate quantities of food and nutrients to enable each cat to:

   (i) maintain good health; and

   (ii) meet its physiological demands, including those resulting from pregnancy, lactation, growth, exercise and exposure to cold; and

   (iii) avoid metabolic and nutritional disorders.

Minimum Standard No. 2 – Body Condition

(a) When a cat’s body condition score is ‘thin’ as defined in Appendix III, 'Assessment of Body Condition of Cats', to this code, remedial action through veterinary attention or improved nutrition must be taken.
(b) A cat’s body condition score must not be allowed to fall below ‘thin’ as defined in Appendix III, ‘Assessment of Body Condition of Cats’, to this code.

**Minimum Standard No. 3 – Water**

Cats must have continuous access to water that is palatable and not harmful to health.

**Minimum Standard No. 4 – Caged Cats (Other Than for Transport)**

(a) Caged cats must have sufficient room to enable them to stretch and move around freely, and must be provided with appropriate areas for feeding and toileting,

(b) Caged cats must be provided with the opportunity to engage in play and exercise daily.

**Minimum Standard No. 5 – Hygiene**

(a) Food and water bowls must be washed regularly to prevent contamination that may pose a threat to the health and welfare of the cat.

(b) Cats kept indoors, and caged cats, must have access to a litter tray containing absorbent material.

(c) Litter trays must be attended to regularly, with faeces and moisture-laden litter removed, to prevent contamination that may pose a threat to the health and welfare of the cat.

**Minimum Standard No. 6 – Removal of Kittens from the Queen**

Kittens made available for sale or rehoming requiring removal from the queen must be in good health and must be at least 8 weeks of age, except where they have been orphaned and cannot be fostered to another queen or where early removal from the queen is deemed necessary by a veterinarian.

**Minimum Standard No. 7 – Signs of Ill Health**

(a) Cats which are observed by their owners or persons in charge to be showing:
(i) signs of significant pain, suffering and distress; or

(ii) signs of repeated straining over a continuous period of 30 minutes, as if to pass urine or faeces; or

(iii) signs of rapidly deteriorating health must URGENTLY receive veterinary attention, be brought to the attention of an inspector under the Act (e.g. an SPCA inspector) or be humanely euthanased.

(b) Cats which are observed by their owners or persons in charge to be showing:

(i) signs of chronic pain, suffering and distress; or

(ii) signs of deteriorating health must receive veterinary attention, be brought to the attention of an inspector under the Act (e.g. an SPCA inspector) or be humanely euthanased.

**Minimum Standard No. 8 – Injured Cats**

Cats which are observed by their owners or persons in charge to be significantly injured must receive urgent veterinary attention, be brought to the attention of an inspector under the Act (e.g. an SPCA inspector) or be humanely euthanased.

**Minimum Standard No. 9 – Use of Collars**

Collars, where used, must be fitted to the cat in such a way that the risk of injury to the cat is avoided.

**Minimum Standard No. 10 – Transportation**

(a) While being transported in a vehicle, cats must be carried in a secure container.

(b) Cats being transported must have sufficient space within the container to stand, turn around and rest normally.

(c) There must be adequate provision for ventilation in the form of multiple holes on at least three sides of the container.

(d) The interior of the container must be smooth, with no projections that could cause injury to the cat.

(e) Cats must not be left unattended in a vehicle when heat is likely to cause distress to
the cat.

**Minimum Standard No. 11 - Euthanasia**

(a) When a cat is euthanased it must be carried out in such a way to ensure that death occurs quickly.

(c) Cats (including kittens) must not be killed by drowning.

**Stray Cats and Cats Living in Colonies**

With New Zealand reputedly having one of the highest rates of cat ownership in the world, it is not surprising that there are a correspondingly high number of stray cats in the community. These cats may breed and, where they have no contact with humans, their offspring may revert to a wild state over time.

Stray cats may live singly or may join colonies, particularly in urban environments where there is shelter (abandoned buildings, dense undergrowth, etc.) and a food source (rubbish tip, restaurant rubbish bins, etc.). Given the numbers of cats living in New Zealand, such colonies will probably always exist.

Often single stray cats, and cats living in colonies, are provided with food on an ad hoc basis by sympathetic individuals. In some instances, colonies are managed on a more formal basis (see ‘Managed Colonies’ below). While a person who merely feeds cats in a colony is not the ‘person in charge’ in terms of the Act, and therefore is not legally responsible for the cats in the colony, it should be noted that, where people trap cats in the colony in order to provide for their vaccination, desexing or care, they will have legal obligations as the ‘person in charge’ (see ‘Trapping of Cats’ below).

**Managed Colonies**

Some cat colonies in New Zealand are cared for by individuals under a management plan agreed with the landowner and/or the local council. Such a management plan should include means of identification; provision of food, water and access to shelter; a vaccination and parasite programme; provision of veterinary treatment; a desexing programme; and a long-term management strategy including continuity of care. Further information on management of cat colonies can be obtained from the SPCA.
**Trapping of Cats**

The Act (see section 36) provides that for any trapped cat, the following obligations apply:

- any traps set must be checked daily within 12 hours of sunrise, commencing from the day after the trap is first set; and

- any cats caught must be attended to without delay. Where practicable, it is recommended when trapping stray cats and cats in colonies that traps be checked more frequently. Any trapped cat must be provided with basic care to meet the requirements of the Act or be released if it is uninjured or be killed humanely if it is a feral cat. Any cat released back into a colony must be in sufficiently good health to be able to fend for itself, and have ongoing access to adequate food, water and shelter to meet its daily needs.

The Act (see section 141) provides that, where a stray cat is trapped and placed in the care of an approved organisation under the Act (such as the SPCA), that organisation must take reasonable steps to identify the owner of the cat, and may take steps to prevent or mitigate any suffering of the cat. If the owner of the cat cannot be identified then, after 7 days, the cat may be sold, found a new home or euthanased.

**Other legislation applying to cat management**

**Resource Management Act 1991**

This Act does not contain any specific reference to cats or feral cats.

**Biosecurity Act 1993**

This Act does not contain any specific reference to cats or feral cats.

The only section that could apply to all (including domesticated) cats is s.121(4) of Part 6 of the Act:

‘If the owner or person in control of any animal or the occupier of any place in which an animal is present fails to comply with a direction under this section, an inspector or authorised person may—

(a) exercise any or all of the powers in subsection (1B); and

(b) in the case of any animal or animals, —
(i) to the extent that it is necessary to enable those powers to be exercised (or exercised efficiently), capture, pen, or muster it or them or any of them; or

(ii) if for any reason it is not practicable to capture, pen, or muster it or them or any of them, kill or destroy it or them or any of them if the inspector or authorised person believes on reasonable grounds that it is necessary to do so for the purpose of controlling pests or unwanted organisms.

Although cats are not specifically mentioned in the Act, feral cats are managed under Regional Pest Management Plans (RPMP) permitted by this law and administered by regional councils.

Part 5 of the Act details 'pest management' and states that: 'The purpose of this Part is to provide for the eradication or effective management of harmful organisms...'

The definition of 'pest' under s.2 of the Act is 'an organism specified as a pest in a pest management plan'.

The definition of 'pest management plan' is 'a plan to which the following apply:

(a) it is for the eradication or effective management of a particular pest or pests:

(b) it is made under Part 5:

(c) it is a national pest management plan or a regional pest management plan'

RPMPs are detailed under sections 68-78 of the Biosecurity Act and, when feral cats are listed within a plan, they are considered to be an unwanted organism under the Biosecurity Act 1993 (although there is lack of clarity as to whether they specifically fall within the actual definition of 'unwanted organism' within s.2 the Act).

Conservation Act 1987

This Act does not contain any specific reference to cats or feral cats. However, no animals (including cats) can be trapped, killed or taken from a conservation area without a permit:

Section 38(4): Every person commits an offence against this Act who, knowingly and without a permit in that behalf issued under subsection (1) or section 26ZZH, or knowingly and otherwise than in compliance with any conditions subject to which such a permit has been issued, —

(a) discharges any hunting weapon on, into, or over any conservation area; or

(b) molests or pursues any animal in a conservation area; or

(c) captures, kills, poisons, tranquillises, traps, or immobilises by any means, any animal in a conservation area; or

(d) has in possession in any conservation area any animal or animal product; or
(e) whether or not any animal or animal product is taken, takes or uses in or over any conservation area any aircraft, dog, hunting weapon, net, poison, ship, snare, or vehicle, for the purpose of molesting, pursuing, capturing, killing, poisoning, tranquillising, trapping, or immobilising, by any means, any animal; or

(f) takes any animal product in a conservation area; or

(g) whether or not any animal product is taken, takes or uses in or over any conservation area any aircraft, dog, net, ship, or vehicle, for the purpose of taking any animal product; or

(h) enters any conservation area with a hunting weapon, net, trap, or snare, or with poison; or

(i) sets any net, trap, or snare, on any conservation area; or

(j) allows any animal to molest, pursue, or kill, any animal, in a conservation area.

The definition of animals is broad and there is no exemption stated for pest species and cats are not specifically mentioned.

In addition, no animals (including cats) can be released into a conservation area:

Section 39(1) Every person commits an offence against this Act who knowingly, and without the authority of the Minister or the Director-General, —

(c) liberates any animal on any conservation area

The responsible agency is the Department of Conservation.

**Wildlife Act 1953**

Under s.2, cats not living in a wild state fall into the definition of ‘domestic animal’ for the purposes of this Act:

‘any cattle, sheep, horse, mule, ass, dog, cat, pig, or goat; but does not include any such animal that is living in a wild state, or any other animal not referred to in this definition notwithstanding that it may be living in a domestic state’

Feral cats fall under the definition of ‘animal’:

‘any mammal (not being a domestic animal or a rabbit or a hare or a seal or other marine mammal) ...’

Feral cats also come under the definition of ‘wildlife’ within the Act:
'wildlife means any animal that is living in a wild state; and includes any such animal or egg or offspring of any such animal held or hatched or born in captivity, whether pursuant to an authority granted under this Act or otherwise; but does not include any animals of any species specified in Schedule 6 (being animals that are wild animals subject to the Wild Animals Control Act 1977).'

Feral cats are not listed under Schedule 6 of the Act, but ‘cat’ is listed under Schedule 5 as one of the species that is not protected under the Act. This means that any provisions granting protection within the Act would not apply to any cats, whether they are domestic, stray or feral.

Section 14(3) specifically states that you cannot take a cat onto a wildlife refuge:

‘it shall not be lawful for any person, except as provided in subsection (2) or subsection (2A) or in subsection (2) of section 5 or pursuant to an authority granted under section 53 or section 54...[to] have in his possession or control in the wildlife refuge any dog or cat...’

Section 54(1) permits the Director-General to authorise hunting or killing of wildlife causing damage:

‘The Director-General, on being satisfied that injury or damage to any person or to any land or to any stock or crops or to any chattel or to other wildlife has arisen or is likely to arise through the presence on any land of any animals (whether absolutely protected or not), and whether or not the land is a wildlife refuge or a closed game area, may authorise in writing the occupier of the land, or any officer or servant of the Department, or any other person, to hunt or kill, or cause to be hunted or killed, or to catch alive for any specified purpose any such animals, or to take or destroy the eggs of any such animals, subject to such conditions and during such period as may be specified in the authority.’

This section applies to feral cats (given that they fall within the definition of ‘wildlife’).

The responsible agency is the Department of Conservation.

**National Parks Act 1980**

This Act is aimed at preserving animals that are indigenous to New Zealand and found within a national park.

This Act does not contain any specific reference to cats or feral cats. However, Section 4 states that ‘introduced plants and animals shall as far as possible be exterminated’ and feral cats are an introduced animal.
Section 5A(1) states that ‘Notwithstanding anything in this Act or any other enactment, but subject to subsections (2) and (3), the Minister may authorise the introduction of any biological control organism to control wild animals or animal pests or plant pests in any national park.’

Section 60(1)(b) states that it is an offence to ‘take any animal into or liberate any animal in any park.’

Section 60(4) states that it is an offence ‘(c) from outside a park, shoot at any animal or any other object or thing inside the park with any firearm’ without being authorised by the Minister.

The responsible agency is the Department of Conservation.

**Local Government Act 2002**

The Local Government Act makes no reference to the words ‘cat’, ‘cats’, ‘feral’, or ‘pest’ or ‘pests’.

The only place that that ‘animal’ is mentioned is under the ability to pass a bylaw that regulates the ‘keeping of animals’:

**Part 8**

**Section 146:**

Specific bylaw-making powers of territorial authorities

Without limiting section 145, a territorial authority may make bylaws for its district for the purposes—

(a) of regulating 1 or more of the following:

(i) on-site wastewater disposal systems:

(ii) waste management:

(iii) trade wastes:

(iv) solid wastes:

(v) keeping of animals, bees, and poultry:

(vi) trading in public places:

Section 145 which is referenced in Section 146 states that:

“A territorial authority may make bylaws for its district for 1 or more of the following purposes:
(a) protecting the public from nuisance:

(b) protecting, promoting, and maintaining public health and safety:

(c) minimising the potential for offensive behaviour in public places."
Appendix 2: NZ North Island Council Bylaws pertaining to cats

Table 5: NZ North Island Council Bylaws pertaining to cats

<table>
<thead>
<tr>
<th>Council</th>
<th>Bylaws</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland Council</td>
<td>The Animal Management Bylaw 2015 states:</td>
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<td></td>
<td>&quot;There is currently no requirement for registration or licensing of cats. There are no restrictions on the number of cats that you can keep on your property. The Animal Management Bylaw 2015 requires all animal owners to make sure their animals do not create a nuisance or health risk to anyone else. If your cats are creating a nuisance or problems for others, we will investigate and take action, if necessary.&quot;</td>
</tr>
<tr>
<td>Carterton District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Central Hawke's Bay District Council</td>
<td>The only bylaw relating to the keeping of animals is the The Keeping of Animals, Poultry and Bees Bylaw 2008: 1304 Noise from Animal, Bird or Fowl. There is no specific reference to cats in this bylaw.</td>
</tr>
<tr>
<td>Bay of Plenty Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Far North District Council</td>
<td>The Keeping of Animals, Poultry and Bees bylaw 2012 states:</td>
</tr>
<tr>
<td></td>
<td>&quot;No person shall keep, or allow to be kept, more than 5 cats or kittens over the age of 3 months on any property zoned Residential, Commercial or Industrial, as prescribed in the Far North District Plan, without the written approval of the Council&quot;</td>
</tr>
</tbody>
</table>
No person shall keep cats or kittens if in the opinion of the Council the keeping of such cats or kittens is, or is likely to become, a nuisance or annoyance to any person or potentially dangerous or injurious to health, or a danger to wildlife.

<table>
<thead>
<tr>
<th>Gisborne District Council</th>
<th>There is no reference to cats in the Keeping of Animals, Poultry and Bees Bylaw 2012.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Wellington Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Hamilton City Council</td>
<td>There is no reference to cats in the Hamilton City Animal Nuisance Bylaw 2013.</td>
</tr>
<tr>
<td>Hastings District Council</td>
<td>The Hastings District Council Animal Control Bylaw 2006 Part 3 states:</td>
</tr>
<tr>
<td></td>
<td>&quot;9.0 Keeping of Cats</td>
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<tr>
<td></td>
<td>9.1 No person shall keep more than four cats over the age of six months on any section. Where two or more dwelling houses are contained on one section no person shall keep more than two cats over the age of six months in any household. For three or more dwelling houses on one section no person shall keep more than one cat over the age of six months in any dwelling house.</td>
</tr>
<tr>
<td></td>
<td>9.2 In the event of a nuisance caused by cats, it shall be the duty of the owner to do such work or reduce the number of cats to abate any nuisance, upon notice being served upon him or her by the Council. In the case of neglect or refusal on the part of such owner to comply with, execute, or do such work or reduce the number of cats, such owner commits an offence against this Part of this Bylaw. In such a case Council may remove such cats as an Animal Control Officer deems necessary to abate the nuisance.</td>
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<tr>
<td></td>
<td>9.3 No person shall establish or maintain any hospital, boarding or breeding establishment for cats except on a site approved by a resource consent from the Council issued under the Resource Management Act 1991 and subject to such conditions as it may think fit to impose.&quot;</td>
</tr>
<tr>
<td>Council</td>
<td>Regulations regarding cats</td>
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<tr>
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</tr>
<tr>
<td>Hauraki District Council</td>
<td>There is no reference to cats in the Hauraki District Council Consolidated Bylaw Keeping of animals (excluding dogs).</td>
</tr>
<tr>
<td>Hawke's Bay Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Horizons Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Horowhenua District Council</td>
<td>The Horowhenua District Council's Animal Nuisance and the Keeping of Pigs, Poultry and Bees Bylaw 2014 states:</td>
</tr>
<tr>
<td></td>
<td>&quot;No person shall keep cats and kittens where the number kept becomes offensive to the occupier of a neighbouring property, a threat to public health or an endangerment to neighbouring animals.</td>
</tr>
<tr>
<td></td>
<td>If the keeping of any cats on a premises is, or is likely to become:</td>
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<td>( a ) A nuisance,</td>
</tr>
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<td></td>
<td>( b ) Injurious or</td>
</tr>
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<td></td>
<td>( c ) Hazardous</td>
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<td></td>
<td>To the health, property or safety of any person, then the Authorised officers may by, notice in writing, require the person who owns the premises to do all or any of the following:</td>
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<td></td>
<td>( a ) Reduce the number of cats kept on the property</td>
</tr>
<tr>
<td></td>
<td>( b ) Take other such precautions as may be considered necessary by the Authorised officer to reduce the effects as listed in subclauses (a) – (c) above.&quot;</td>
</tr>
<tr>
<td>Hutt City Council</td>
<td>There is no reference to cats in the Hutt City Council Control of Animals Bylaw 2008.</td>
</tr>
</tbody>
</table>
‘Animal’ is stated to include poultry, birds, and bees, but not dogs.

<table>
<thead>
<tr>
<th>Kaipara District Council</th>
<th>There is no bylaw in reference to keeping cats. Animal bylaws refer to dogs or stock.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kapiti Coast District Council</td>
<td>There is no reference to cats in the Keeping of Animals, Bees and Poultry Bylaw 2010.</td>
</tr>
<tr>
<td>Kawerau District Council</td>
<td>There is no reference to cats in the General Bylaw Part 7: Keeping of Animals, Poultry and Bees (2012). Dogs and cats are excluded from this bylaw.</td>
</tr>
<tr>
<td>Manawatu District Council</td>
<td>The Animal Bylaw 2014 states:</td>
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<tr>
<td></td>
<td>&quot;A person may keep up to four cats over the age of six months on any rateable property. Where there is more than one dwelling-house on each rateable property, each dwelling is permitted to have one domestic cat.&quot;</td>
</tr>
<tr>
<td></td>
<td>These provisions seek to minimise the potential nuisance that may result from having many cats in one area.</td>
</tr>
<tr>
<td></td>
<td>Manawatu District Council Animal Bylaw 2014 states:</td>
</tr>
<tr>
<td></td>
<td>&quot;Part 3: Cats</td>
</tr>
<tr>
<td></td>
<td>11 Number of Cats on Premises</td>
</tr>
<tr>
<td></td>
<td>11.1 No person may Keep, on any one Rateable Property in the District, more than four cats over the age of six months.</td>
</tr>
</tbody>
</table>
11.2 In the event of more than one Dwelling house on one Rateable Property, no more than one domestic cat per dwelling is allowed.

11.3 Clause 11 does not apply to:

(a) Any cats under the age of six months being kept for no longer than 14 days; and

(b) Vets, SPCA or similar registered charities, and boarding premises which have all necessary permits and resource consents as may be required.

12 Cats becoming a Nuisance or Injurious to Health

12.1 If, in the opinion of any Council Officer, the Keeping of any cats on a Premises is, or is likely to become:

(a) a Nuisance;
(b) injurious; or
(c) hazardous:

to the health, property or safety of any person, then the Council Officer may by notice in writing require the Owner or Occupier of the Premises to do all or any of the following:

(a) reduce the number of cats kept on the Premises;

(b) take other such precautions as may be considered necessary by the Council Officer to reduce the effects listed in sub-clauses (a) to (c) above.

12.2 Compliance with a notice under clause 13.1 must take place within the time specified in such notice, not being less than 14 days."
<table>
<thead>
<tr>
<th>Council</th>
<th>Regulations</th>
</tr>
</thead>
</table>
| **Masterton District Council**  | The Masterton and South Wairarapa District Councils’ Consolidated Bylaw 2012 states within its Keeping of Animals, Poultry and Bees Section:  

“5 Keeping of Cats  

No person shall keep, on any residential property in the district more than three cats of age three months or more, for a period exceeding fourteen (14) days, without the permission of an authorised officer.” |
| **Matamata-Piako District Council** | There is no reference to cats in the Consolidated Bylaw 2008: 6 Keeping of Animals (excluding dogs). |
| **Napier City Council**         | The Animal Control Bylaw 2014 states:  

“There is no limit to the number of cats permitted to be kept in any premises providing the cats are sufficiently cared for in accordance with the Animal Welfare (Companion Cats) code of welfare 2007, however catteries require resource consent under the District plan.  

If the keeping of cats causes an environmental health issue, the number of cats may be limited on a case by case basis at the discretion of the Regulatory Services Manager.” |
| **New Plymouth District Council** | The New Plymouth District Council Bylaw 2008: Animals states:  

"Keeping of cats or kittens  

7.1 No person shall keep five or more cats or kittens over six months of age within or by any household unit in an urban area except with the written approval of an authorised officer. |
7.2 Before granting any approval under clause 7.1, the authorised officer must be satisfied that:

a) The cats or kittens will be adequately housed and that no nuisance will result; and

b) Any other lawful requirements of the council have been satisfied including any relevant provisions of the New Plymouth District Plan.

7.3 The approval of the authorised officer under clause 7.1 may include such terms and conditions as the authorised officer considers appropriate in the circumstances.

7.4 Despite clause 7.1, a breeder of cats may keep more than five cats in the breeder’s cattery if the breeder and the cattery meet the following criteria:

a) The breeder is a full voting member of the Taranaki Cat Club Incorporated; and

b) The breeder holds a registered prefix granted to them by the New Zealand Cat Fancy; and

c) The breeder's cats are held in a cattery accredited under the Cattery Accreditation Scheme operated by the New Zealand Cat Fancy; and

d) The number of cats held in the cattery must be no more than that for which the cattery is accredited; and

e) The cattery is operated to a high standard of hygiene at all times; and

f) The cattery does not create a nuisance.

7.5 Despite clause 7.1 a breeder may keep up to five free living cats in the breeder's household in addition to the number in their cattery.
7.6 If, in the opinion of an authorised officer, any cattery creates a nuisance, or a health nuisance is caused by the keeping of cats or kittens (due to odour or accumulated faecal matter), the council may by written notice to the breeder, owner or occupier, as the case may be, require the breeder, owner or occupier to abate the nuisance.”

<table>
<thead>
<tr>
<th>Council</th>
<th>Bylaw Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northland Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td></td>
<td>This regional council includes Far north, Kaipara and Whangarei district councils.</td>
</tr>
<tr>
<td>Opotiki District Council</td>
<td>There is no reference to cats in the Animals Bylaw 2008.</td>
</tr>
<tr>
<td>Otorohanga District Council</td>
<td>There is no bylaw in reference to cats. The only animal bylaws relate to dogs and stock.</td>
</tr>
<tr>
<td>Palmerston North City Council</td>
<td>The Palmerston North Animals and Bees Bylaw 2011 states:</td>
</tr>
<tr>
<td></td>
<td>“Cats on Premises</td>
</tr>
<tr>
<td></td>
<td>8.1 No person may keep more than three cats on any private land with an area less than 2,000m² in the urban area without a permit issued under this Bylaw</td>
</tr>
<tr>
<td></td>
<td>8.2 No cats kept for breeding purposes shall be housed within 1.8 metres of the boundary of any adjoining property in the urban area unless the housing is within a dwelling house.</td>
</tr>
<tr>
<td></td>
<td>8.3 The restrictions of clauses 8.1 and 8.2 shall not apply to kittens below the age of three months.”</td>
</tr>
<tr>
<td>Porirua City Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td></td>
<td>Cats and dogs are excluded from the Porirua City Council General Bylaw 1991: Keeping of animals.</td>
</tr>
<tr>
<td>Rangitikei District Council</td>
<td>The Animal Control Bylaw 2013 states:</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td></td>
<td>“7. Cats</td>
</tr>
<tr>
<td></td>
<td>No person shall keep more than three cats over three months of age on any household unit in any urban area, unless given a written dispensation by an enforcement officer.</td>
</tr>
<tr>
<td></td>
<td>Clause 7.1 shall not apply to any veterinary clinic, SPCA shelter, or registered breeder as accredited under the Cattery Accreditation Scheme operated by the New Zealand Cat Fancy.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Boarding or breeding establishments for more than 15 cats require resource consent under the operative District Plan.”</td>
</tr>
</tbody>
</table>

| Rotorua Lakes Council       | There is no bylaw in reference to keeping cats. |

<table>
<thead>
<tr>
<th>Ruapehu District Council</th>
<th>The Animal Control Bylaw 2012 states:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“10.0 Part B: Keeping of Domestic Cats</td>
</tr>
<tr>
<td></td>
<td>The object of this part of the Bylaw is to regulate the keeping of cats in the Ruapehu District thereby:</td>
</tr>
<tr>
<td></td>
<td>(a) To ensure that they do not create a public health nuisance to any person(s), other animals, wildlife or property.</td>
</tr>
<tr>
<td></td>
<td>(b) To control the number of cats kept in residential, commercial or industrial areas.</td>
</tr>
<tr>
<td></td>
<td>10.3 No person shall keep more than four cats over six months of age within any household unit in the residential, commercial or industrial areas as outlined in the Ruapehu District Plan, unless being given a dispensation by a Council Officer for this Clause. This Bylaw shall not apply to any veterinary clinic, SPCA shelter or registered breeder as accredited under the Cattery Accreditation Scheme operated by the New Zealand Cat Fancy.</td>
</tr>
</tbody>
</table>
10.4 Despite Clause 10.3 above a registered breeder, may keep up to four non-breeding cats over six months of age within the breeder’s household, in addition to the number of cats in the cattery.

10.5 Where Council has received a complaint and has reasonable grounds that cats are kept in such a manner deemed to be a public health nuisance by keeping more than four cats a Council Officer may:

(a) Undertake reasonable steps necessary to abate the offence; and

(b) Where welfare issues exist, refer the matter to the SPCA for action."

| South Taranaki District Council | There is no reference to cats in the Keeping of Animals bylaw 2013: 7.0 Keeping of Animals. |
| South Waikato District Council | The Keeping of Animals: Poultry and Bees Bylaw 2011 states:

“7.2 Keeping of cats or kittens

7.2.1 An authorised officer may impose a limit on the number of cats which may be kept on private land (such limit being not more than five) where:

(a) the Council has received a complaint about the number of cats kept on the private land; and

(b) the officer considers that the number of cats creates or is likely to create a public health nuisance; and

(c) the person keeping those cats fails to comply with any reasonable request of the officer to abate or prevent the nuisance created. |
7.2.2 No person shall keep five or more cats or kittens over six months of age within, or adjacent to any household unit, in an urban area except with the written approval of an authorised officer.

7.2.3 Before granting any approval under clause 7.2.1, the authorised officer must be satisfied that:

(a) The cats or kittens will be adequately housed and that no nuisance will result.

(b) Any other lawful requirements of the Council have been satisfied including any relevant provisions of the District Plan.

7.2.4 The approval of the authorised officer under clause 7.2.2 may include such terms and conditions as the authorised officer considers appropriate in the circumstances.

7.2.5 Despite clause 7.2.1, a breeder of cats may keep more than five cats in the breeder's cattery if the cattery meets the following criteria:

(a) The breeder holds a registered prefix granted to them by the New Zealand Cat Fancy;

(b) The breeder cats are held in a cattery accredited under the Cattery Accreditation Scheme operated by the New Zealand Cat Fancy Incorporated;

(c) The number of cats held in the cattery must be no more than that for which the cattery is accredited;

(d) The cattery is operated to a high standard of hygiene at all times;

(e) The cattery does not create a nuisance.

7.2.6 Despite clause 7.2.1 a breeder may keep up to five free-living cats in the breeder's household, in addition to the number in their cattery.
7.2.7 If, in the opinion of an authorised officer, any cattery has created a nuisance, or a health nuisance is caused by the keeping of cats or kittens (due to odour or accumulated faecal matter), the Council may by written notice sent to the breeder, owner or occupier, as the case may be, require the breeder, owner or occupier to abate the nuisance.

7.2.8 It is the duty of the breeder, owner or occupier to abate the nuisance as required by any notice sent under clause 7.2.7.”

<table>
<thead>
<tr>
<th>South Wairarapa District Council</th>
<th>The Masterton and South Wairarapa District Councils’ Consolidated Bylaw 2012 states within its Keeping of Animals, Poultry and Bees Section:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;5 Keeping of Cats</td>
</tr>
<tr>
<td></td>
<td>No person shall keep, on any residential property in the district more than three cats of age three months or more, for a period exceeding fourteen (14) days, without the permission of an authorised officer.&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stratford District Council</th>
<th>There is no reference to cats in The keeping of Animals and Poultry Bylaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taranaki Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Tararua District Council</td>
<td>There is no reference to cats in the Bylaw Chapter 13 The keeping of Animals, Poultry and Bees.</td>
</tr>
<tr>
<td>Taupo District Council</td>
<td>No bylaw found in reference to cats.</td>
</tr>
<tr>
<td>Tauranga City Council</td>
<td>There is no reference to cats in The Keeping of Animals Bylaw 2008 other than the following:</td>
</tr>
</tbody>
</table>
“There is nothing Council can do about individual cats straying on to your property (see notes below about actions you can take) and Council will not provide traps for people to catch cats. If the cats have been abandoned on your property by a previous owner or tenant please phone the SPCA (07) 5782784 Council can help if a cat colony has established itself on your property. A colony is three or more cats which are living on a property where you live and the cats are unowned and not being fed by anybody.”

<table>
<thead>
<tr>
<th>Thames-Coromandel District Council</th>
<th>There is no reference to cats in the Consolidated Bylaw 2004 Nuisances 2005: 1109 Noise from animal, bird, or fowl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Hutt City Council</td>
<td>There is no reference to cats in the Keeping of Animals Poultry and Bees Bylaw 2005.</td>
</tr>
<tr>
<td>Waikato District Council</td>
<td>There is no reference to cats in the Keeping of animals bylaw 2015.</td>
</tr>
<tr>
<td>Waikato Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Waipa District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Wairoa District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Waitomo District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Wanganui District Council</td>
<td>The Keeping of Animals, Poultry and Bees Bylaw 2015 states:</td>
</tr>
<tr>
<td></td>
<td>“8. Cats</td>
</tr>
</tbody>
</table>
8.1 There is no limit to the number of cats permitted to be kept on any Premise provided the cats are sufficiently cared for and the keeping of such cats does not cause, or is likely to cause a Nuisance.

8.2 In the event of a Nuisance caused by the cats and upon written notice being served upon the owner by an Authorised Council Officer, it shall be the duty of the owner to do such work or reduce the number of cats to abate any Nuisance. In the case of neglect or refusal on the part of the owner to comply with, execute, or do such work or reduce the number of cats, the owner commits an offence under this Bylaw. In such a case Authorised Council Officers may remove such cats as they deem necessary to abate the Nuisance.

8.3 Authorised Council Officers have delegated discretionary authority to impose a limit on the number of cats which may be kept on any Premise where:

a) Council has received a complaint about the number of cats kept on the premise; and

b) The Authorised Council Officer considers that the number of cats causes or is likely to cause a public health Nuisance; and

c) The person keeping the cats fails to comply with any reasonable request of an Authorised Council Officer to abate or prevent the Nuisance created.”

**Wellington City Council**

Currently there are no guidelines on cat ownership in Wellington.

There is a proposed bylaw which will legislate that:

- All domestic cats must be microchipped and registered with a recognised microchip registry.
- Requiring permission to keep more than three cats, over the age of 6 months. Exceptions are proposed for catteries and registered breeders. A strict limit to numbers of cat that may be kept is not proposed.
- If a household has more than three cats, permission could be required through a simple application process.
<table>
<thead>
<tr>
<th>Council</th>
<th>Bylaw Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Bay of Plenty District Council</td>
<td>There is no reference to cats in the General Bylaw 2008: Animals (excluding dogs).</td>
</tr>
<tr>
<td>Whakatane District Council</td>
<td>There is no reference to cats in the Bylaw Part 10 Control of Animals (Excluding dogs).</td>
</tr>
<tr>
<td>Whangarei District Council</td>
<td>There is no reference to cats in The Keeping of Animals, Poultry and Bees Bylaw.</td>
</tr>
</tbody>
</table>
Table 6: NZ South Island Council Bylaws pertaining to cats

<table>
<thead>
<tr>
<th>Council</th>
<th>Bylaws</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashburton District Council</td>
<td>There is no reference to cats in the Bylaw's Chapter 3: Keeping of Animals, Bees and Poultry.</td>
</tr>
<tr>
<td>Buller District Council</td>
<td>The NZS 9201: Part 13 The Keeping of Animals, Section 1306: The keeping of cats states:</td>
</tr>
<tr>
<td></td>
<td>“1306.1 In areas other than those zoned rural, no person within the district shall allow or cause to remain or keep more than three cats of a greater age than six months, which are deemed to be annoying or troublesome to others.</td>
</tr>
<tr>
<td></td>
<td>1306.2 On receipt of a complaint signed by not less than three householders, the Council may, after investigation, serve a notice requiring a reduction of cat numbers. This bylaw section shall not apply to any premises approved for the business of boarding or breeding cats, or any veterinary practice or SPCA shelter.”</td>
</tr>
<tr>
<td>Central Otago District Council</td>
<td>There is no reference to cats in the Bylaw's Part 4: Keeping of Animals, Poultry and Bees.</td>
</tr>
<tr>
<td>Chatham Islands Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Christchurch City Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Clutha District Council</td>
<td>There is no reference to cats in the Clutha District Council Regulatory Bylaws: Part 5 The Keeping of Animals, Poultry and Bees 2008.</td>
</tr>
<tr>
<td>Council</td>
<td>Bylaw/Bylaws Reference</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dunedin City Council</td>
<td>There is no reference to cats in the Keeping of Animals (excluding dogs) and Birds Bylaw 2010.</td>
</tr>
<tr>
<td>Environment Canterbury</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Environment Southland</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Gore District Council</td>
<td>There is no reference to cats in the Gore District Council Keeping of Animals, Poultry and Bees Bylaw 2009.</td>
</tr>
<tr>
<td>Hurunui District Council</td>
<td>There is no reference to cats in the Hurunui District Council Keeping of Animals in Urban Areas Bylaw 2010.</td>
</tr>
</tbody>
</table>
| Invercargill City Council       | The Invercargill City Council Bylaw 2013/2 – Keeping of Animals, Poultry and Bees states:  

"Keeping of Cats and Kittens

8.1 The Director of Environmental and Planning Services may impose a limit on the number of cats and kittens which may be kept on private land, such limit being no more than three, where:

(a) the Council has received a complaint about the number of cats kept on the private land; and / or

(b) the number of cats is creating a nuisance or is likely to create a nuisance; and

(c) the person keeping those cats fails to comply with any reasonable request of an Authorised Officer to abate or prevent the nuisance.

8.2 The Invercargill City Council recommends the keeping of no more than three cats on any private property." |
<table>
<thead>
<tr>
<th>Council</th>
<th>Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaikoura District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Mackenzie District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Marlborough District Council</td>
<td>The <strong>Marlborough District Council Bylaws state:</strong></td>
</tr>
<tr>
<td></td>
<td>“You can keep four cats over the age of three months. If you want to keep</td>
</tr>
<tr>
<td></td>
<td>more than four cats you will need to get a multiple cat licence. To apply,</td>
</tr>
<tr>
<td></td>
<td>complete the application form below and send to Council’s Environmental</td>
</tr>
<tr>
<td></td>
<td>Health Department.</td>
</tr>
<tr>
<td></td>
<td>Cats are allowed to trespass and their owner is not liable for any damage</td>
</tr>
<tr>
<td></td>
<td>they do unless they have a “mischievous propensity”.</td>
</tr>
<tr>
<td></td>
<td>The Marlborough District Council (MDC) Bylaw 2010 Chapter 7 - Keeping of</td>
</tr>
<tr>
<td></td>
<td>Animals, Poultry and Bees states:</td>
</tr>
<tr>
<td></td>
<td>“705 Cats</td>
</tr>
<tr>
<td></td>
<td>705.1 Except as provided in clause 705.2 below no person shall keep or</td>
</tr>
<tr>
<td></td>
<td>allow to be kept on any land more than four cats over the age of three</td>
</tr>
<tr>
<td></td>
<td>months unless there is in force in respect of that land a licence from the</td>
</tr>
<tr>
<td></td>
<td>Council permitting the additional cats.</td>
</tr>
<tr>
<td></td>
<td>705.2 Any person (being the owner of a cat or cats or the owner or occupier</td>
</tr>
<tr>
<td></td>
<td>of the land) who wishes to obtain a licence must make written application to</td>
</tr>
<tr>
<td></td>
<td>the Council for a licence in the form as required by the Council and must</td>
</tr>
<tr>
<td></td>
<td>provide with that application all information which the Council reasonably</td>
</tr>
<tr>
<td></td>
<td>requires.</td>
</tr>
<tr>
<td></td>
<td>705.3 The Council when considering any such application shall have regard to</td>
</tr>
<tr>
<td></td>
<td>all relevant considerations including:</td>
</tr>
</tbody>
</table>
(i) The suitability of the land on which the additional cat or cats specified in the application would be kept;

(ii) The likely effect which the keeping of additional cats would have upon the surrounding neighbourhood;

(iii) The likelihood of the cat or cats becoming a nuisance;

(iv) Health issues;

(v) Potential effects on native birds.

705.4 Subject to the foregoing provisions of this Bylaw, the Council may issue a licence for the purposes specified in clause 705.1.

705.5 Any such licence may be issued subject to any reasonable terms, conditions and restrictions consistent with this Bylaw which the Council may determine either generally or in any particular case.

705.6 Every licence will be in the form as required by the Council.

705.7 For every such licence there will be paid to the Council for the issue of the licence a fee which the Council may by resolution determine from time to time provided that the licence fee shall not exceed $75.00.

705.8 If at any time while a licence is in force in accordance with this Bylaw:

(i) The Council is satisfied that the keeping of the additional cat or cats on the land specified in the licence has caused a nuisance or is likely to injure any person's health; or
(ii) The Council is satisfied that the keeping of the additional cat or cats on the land specified in the licence has caused an unduly detrimental effect upon the surrounding

neighbourhood; or

(iii) There has been a failure to comply with all or any of the terms, conditions and restrictions of the licence;

then the Council may revoke the licence provided that in its decision to do so regard will be had to the principles of natural justice.

705.9 Nothing in the previous clauses of this Bylaw shall apply:

(i) To any land used lawfully and principally as a veterinary clinic including any office used by a veterinary surgeon in the course of his or her work;

(ii) To any land used lawfully and principally for carrying on the business of boarding cats;

706 Prohibitions

706.1 The Council may prohibit the keeping of animals on any premises where the keeping of animals is causing or likely to cause a nuisance, annoyance or danger to health or an undue threat to native wildlife."

<table>
<thead>
<tr>
<th>Nelson City Council</th>
<th>There is no reference to cats in the Urban Environments Bylaw 225: keeping of animals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otago Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Queenstown Lakes District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Council</td>
<td>Bylaw Information</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Selwyn District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
</tbody>
</table>
| Southland District Council      | The Southland District Council’s The Keeping of Animals, Poultry and Bees Bylaw 2010 states:  
   | "2.3 An Environmental Health Officer may impose a limit on the number of cats which may be kept on a private land (such limit being not more than five) where:  
   | (a) the Council has received a complaint about the number of cats kept on the private land; and  
   | (b) the officer considers that the number of cats is creating a nuisance or is likely to create nuisance; and  
<p>| (c) the person keeping those cats fails to comply with any reasonable request of the officer to abate or prevent the nuisance.&quot; |
| Tasman District Council         | There is no bylaw in reference to keeping cats.                                   |
| Timaru District Council         | There is no reference to keeping cats in the Timaru District Consolidated Bylaw 2013 Chapter 21 The Keeping of Animals, Poultry and Bees. |
| Waimakariri District Council    | There is no bylaw in reference to keeping cats.                                   |
| Waimate District Council        | There is no reference to cats in the Waimate District Consolidated Bylaw 2008 Chapter 18: The Keeping of Animals, Poultry and Bees. |</p>
<table>
<thead>
<tr>
<th>Council</th>
<th>Bylaw Reference and Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waitaki District Council</td>
<td>The only reference to cats in the Waitaki District Council General Bylaw 2006 General Bylaw Part 4 Keeping of Animals, Poultry and Bees is that cats are exempt from being contained/restrained within the owner’s property.</td>
</tr>
<tr>
<td>West Coast Regional Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
<tr>
<td>Westland District Council</td>
<td>There is no bylaw in reference to keeping cats.</td>
</tr>
</tbody>
</table>
Appendix 3: International examples of existing cat control specific legislation

Please note that cat populations are defined and referred to differently in different countries. In many countries free roaming cats are referred to as feral but these may be the same as stray or feral cats (or even free-roaming companion cats) as defined under New Zealand law.

Australia

Table 7: Australian state-based legislation for domestic cat management

<table>
<thead>
<tr>
<th>Element</th>
<th>ACT</th>
<th>NSW</th>
<th>QLD</th>
<th>SA</th>
<th>TAS</th>
<th>VIC</th>
<th>WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat registration</td>
<td>No</td>
<td>Yes by 12 weeks or transfer, for life</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes from 3 months</td>
<td>Yes</td>
</tr>
<tr>
<td>Identification (collar &amp; tag)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Microchip</td>
<td>Yes</td>
<td>Yes prior to sale or transfer by 12 weeks</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes prior to sale or transfer by 6 months</td>
<td>Yes prior to sale or transfer by 6 months of age</td>
</tr>
<tr>
<td>Desexing</td>
<td>Yes by 3 months</td>
<td>No</td>
<td>No</td>
<td>Yes by 6 months (pending)</td>
<td>Yes by 6 months</td>
<td>No</td>
<td>Yes by 6 months or before sale or transfer</td>
</tr>
<tr>
<td>Breeder registration</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>----------------------</td>
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<td>----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>from 3 months</td>
<td>for entire cat</td>
<td>(pending)</td>
<td>if have &gt;3 fertile cats</td>
<td>by 6 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breeder required to comply with Standards</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Must not abandon a cat</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Must not feed feral/stray cat</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Nuisance</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Stray cats to be surrendered</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Prohibited areas</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Animal Management Plans</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

*Modified from the 'Comparison of key elements of state-based cat management legislation' table in Identifying Best Practice Cat Management in Australia: A Discussion Paper (RSPCA Australia 2017 (in press))

* There is no territory-based legislation relating to cat management in the NT

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**Canada**

Most municipalities in Canada have had dog control bylaws for many years, but very few municipalities have cat bylaws. Historically, it has been widely accepted that cats are
allowed to roam free. This is beginning to change and now eight municipalities in British Columbia mandate that cats may not ‘roam at large’ and ten municipalities in British Columbia prohibit owner/guardians from allowing non-desexed cats to ‘roam at large’.

Other municipalities are bringing in bylaws requiring cats to be registered and identified and placing limits on the number of cats allowed to be kept. For example, in the City of Ottawa (The Animal Care and Control By-law (By-law No. 2003-77))

**Lithuania**

A new law in Lithuania that came into effect on 1st January 2016 requires that all cats are microchipped. The ownership information is stored in a database run by the state.

In addition, municipalities are required to “organise activities to reduce the number of stray pets in a municipality, temporary care for homeless and stray animals and return of homeless animals to their owners”.

Article 5 of the law states that “[it is not cruel treatment to] set free stray cats captured and neutered in accordance with cat neutering programmes coordinated with the municipal administration”.

Breeding is also discussed within the law, for example, “Pet owners, except for the persons breeding pets for commercial purposes, must ensure that their pets would not reproduce unless they ensure the transfer of pet offspring to new owners (except for their transfer to an animal carer) or take care of them themselves.”

Section IV of the law deals with stray and homeless animals and states:

- “Article 13. Stray and Homeless Animals

  1. In the territory of a municipality, temporary care of captured stray and homeless animals and stray and homeless animals reported by persons who capture, but cannot keep them shall be organised by the municipal administration in accordance with the procedure specified by the head of the municipal administration.

  2. In accordance with the procedure set out by the head of the municipal administration, the municipal administration shall, within its remit, participate in implementing stray cat neutering programmes drafted by animal care organisations.”
3. When catching stray and homeless animals, animals caught must be subjected to as little physical and mental suffering as possible.

4. Neutered and externally marked stray cats caught must be immediately released, except where they are suspected to be ill or are maimed.

**Article 14. Temporary Care of Stray and Homeless Animals Organised by Municipal Administrations**

1. All stray and homeless pets whose capture is organised by the municipal administration or which are reported by persons who catch stray or homeless pets, but cannot keep them shall be transferred to an animal carer, and stray or homeless domestic animals – to a keeper of domestic animals able to temporarily take care of a domestic animal.

2. Upon the expiry of the period referred to in Article 4.61(3) of the Civil Code and where the animal owner remains unidentified, an animal shall be transferred free of charge to the person having taken care of it.

**Article 15. Requirements for Animal Carers**

1. Animal carers must meet the requirements set forth by legal acts.

2. In order to keep animals, animal carers may establish pet shelters.

3. Animal carers must: 1) check the condition of health of every animal reaching them, evaluate the possibility to further keep it and ensure the necessary veterinary assistance and vaccination of animals; 2) check the animal’s identification to identify the owner of the animal and, where the owner is identified, immediately inform him about the animal found; 3) ensure publication of information about stray and homeless animals kept; 4) search for new owners for animals and provide new owners with all the necessary information about an animal, its health condition and how to keep it and ensure its welfare; 5) create conditions for keeping animals without jeopardising their health and welfare.

4. Animal carers may not breed animals.”

**Switzerland**

Switzerland has legislation mandating microchipping of cats.
USA

There are limited state laws relating to cats in the USA. There are anti-cruelty laws but other than these the majority of state laws address public health issues, such as requiring cats to be vaccinated against rabies.

Please note that laws in the USA refer to any free roaming cats as feral but these may be the same as stray or feral cats (or even free-roaming companion cats) as defined under New Zealand law.

Free-roaming and feral cats are generally considered by states to be a local issue but most states try to reduce the number of free-roaming and feral cats by requiring cats that are adopted from pounds and shelters to be desexed.

The only states that have comprehensive ‘cat codes’ are California, Maine, and Rhode Island:

- California mandates the minimum time for weaning kittens, yearly veterinary requirements, and holding periods for impounded cats and also has a comprehensive policy statement on the issue of feral cats.
- Maine mandates the seizure of stray cats and vaccination requirements.
- Rhode Island has a ‘Cat Identification’ act. RI ST 4-22-1 et. seq. which requires that cats display some form of identification (tag, tattoo, etc.) in an effort to reduce the feral/stray cat problem. The law also reduces the retention period for cats impounded without some form of identification. This state also has the ‘Rhode Island Permit Program for Cats.’ Which requires a permit for breeding and other cats to be desexed by 6 months of age.

Local legislation

Some communities in the U.S. have passed their own cat and TNR ordinances. For example:

- The Mountainbrook, Alabama: Code of Ordinances. Sec. 6-3. - Impoundment of stray, feral, or abandoned cats and felines states:

 “(a) The City of Mountain Brook or its representatives, including the dog warden, animal control officer, or person serving in like capacity, or such persons or firms as may be designated or employed by the city or with whom the city may contract for such purposes, shall have the authority to trap or collect by humane means and impound any cat or member of the feline family that appears to be stray, abandoned,
feral, undomesticated, or uncared for based on the behaviour or physical condition of the cat, and the absence of any collar, tag, microchip, or other means of identifying the name, address, or telephone number of the owner of the cat.

(b) If the impounded cat is not redeemed by its owner or placed with a new owner, the city or its representatives shall be authorized to euthanize and/or dispose of the cat in a merciful manner after following the process prescribed by section 6-110 of this Code.

(c) The collection, care, and disposition of any impounded cat shall be subject to state law governing such practices, including but not limited to desexing requirements set forth in the Code of Ala. 1975, § 3-9-2.

(d) If the impounded cat is determined by reasonable means to be infected with rabies, the cat shall be deemed a public nuisance and a danger to the health and safety of the community and shall be euthanized in a merciful manner.

(e) A cat that is trapped and impounded pursuant to subsection (a) herein may be released into the general area from which it was trapped subject to the following requirements:

1. The cat is determined by reasonable means to be feral or undomesticated and not suitable for adoption;

2. The cat is determined by reasonable means to be healthy and without disease or infection of any kind, including not falling within the purview of subsection (d) herein;

3. The cat is sterilized\(^1\) pursuant to the sterilization\(^2\) requirements set forth in the Code of Ala. 1975, § 3-9-2 and other state law governing such practices;

4. The cat is vaccinated for rabies; and

5. The cat is marked with ear tags, a clipped ear, or other means to identify that said cat has been sterilized\(^1\).

(f) The purpose of this section is to authorize the humane trapping, collection, and sterilization\(^2\) and/or disposal of cats that are reasonably believed not to be owned or under the care of any person and which, by virtue of such status and other indicia,

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\(^1\) Desexed

\(^2\) Desexing
are deemed to represent an actual or potential threat to the health, safety, and welfare of the public. Nothing herein shall be deemed to prevent the city and its employees or agents from using reasonable discretion in discharging the functions and activities hereby authorized. Nothing herein shall be interpreted or deemed to create or to impose on the city, its agents, employees, persons, or entities acting on behalf thereof any duty, standard of care, or liability to the public generally or to any member thereof with respect to the collection, care, or disposition of cats impounded under the authority hereof.

- Elk Grove, California:
  - Owned cats and dogs in Elk Grove must be licensed while feral and community cats are exempt from licensing requirements.
  - Elk Grove has a limit to the number of dogs and cats a person can keep. The relevant Ordinance states:
    - "Limitation on number of dogs and cats. It is unlawful for any person to keep or harbour more than four (4) dogs or four (4) cats or a combination of both not to exceed a total of four (4), which are over the age of four (4) months on or in any lot, premises, dwelling, building, structure, boat, or living accommodation."

Elk Grove also mandates that no dog or cat shall be released for adoption without being desexed or without a written agreement from the adopter guaranteeing that such animal will be desexed and a desexing deposit made.
Appendix 4: Response to consultation feedback

Dear Stakeholder,

The National Cat Management Strategy Group (NCMSG) is pleased to provide you with the finalised National Cat Management Strategy document. This has been the culmination of three years’ worth of work after embarking on this important journey in August 2014. We are incredibly cognisant of the strong and disparate emotional responses that discussions around cat management evoke. However, the current status quo is not in the best interests of animal welfare, biodiversity and the community. The options were, and are, to do nothing, or, to take a brave step and collaboratively tackle this highly complex and emotionally charged issue and demonstrate collective leadership in the absence of positive progress in this area. The latter is what the NCMSG set out to do which has been a challenging journey. There is no easy silver bullet solution but what we have produced is an evidence-based critically analysed detailed discussion document around the options currently available to ensure the cats are responsibly owned and cared for and that any potential impacts are mitigated. It is important to note that all the NCMSG members firmly believe that all cats should be treated with respect and compassion and are entitled to a ‘life worth living’. This is balanced with an equally important viewpoint that our unique native biodiversity warrants protection also. The five national and three government organisations involved in the NCMSG implore you to please read the document in entirety. It is important that this is done with an open, solutions focused mind, rather than with pre-conceived bias, and that full impartial consideration is given to the options presented.

We thank those of you who took the time to give feedback during the first and/or second round of consultation on the National Cat Management Strategy draft documents. We appreciate your input and engagement with this important issue and recognise the importance of working with the many stakeholders in cat management.

There was great diversity in the involved stakeholders’ positions and approaches to the issue of cat management. It has been the National Cat Management Strategy Group’s (NCMSG) intention to devise a strategy that is evidence-based, measured, moderate and practically applicable. While the NCMSG carefully considered all the feedback given it is acknowledged that it has not been possible to incorporate all of the suggestions or accommodate all points of view.

A number of common themes came up in the draft strategy consultation. These summarised below with responses to each of the main concerns or queries.
**Concerns about microchips**

A number of stakeholders expressed concerns about the potential for microchips to fail and the resultant inability to identify microchipped cats. Although this is a valid concern, the failure rate of microchips is very low. Of all the microchips registered on the New Zealand Companion Animal Register (NZCAR), the recorded failure rate is 0.1%. In addition, this is most likely an overestimate as when microchips are reported/recorded as failed NZCAR is unable to distinguish between implanter error, true microchip failure and microchip reader error (for further information please see the relevant section of the discussion paper). There is no brand of microchip currently on the market that is immune to failure but microchipping is still far more reliable than other identification measures. In addition, the NCMSG recommends that cats also have external identification (a collar and tag). Other measures can also be used to increase the chance of a lost cat being reunited with his/her owner/caretaker (please see further information later and in the discussion paper).

There seems to be some misunderstanding surrounding the issue of mandatory microchipping and the perception that this will lead to the killing of more cats. In fact, it should be quite the opposite (and this is certainly the intention). Currently it is common for unidentified cats, particularly unsocialised cats, to be humanely killed if they are taken into custody by animal control officers, or if they end up at a pound or shelter. Mandatory microchipping will mean more cats are microchipped and this gives them a greater chance of being identified and returned to their owner. In addition, as mentioned above, the NCMSG is advising a number of other measures also be implemented to increase the number of cats reunited with their owners, rehomed or managed by non-lethal methods (for more detail see later).

There also seems to be some confusion about what generally happens to unwanted cats. This makes it difficult for people to recognise the need for and benefits of the strategies that are proposed in the cat management plan. In the interests of transparency and improved understanding, the NCMSG wants to make the current situation clear. When a cat is brought by a person other than the owner into an organisation that accepts cats, such as a pound or shelter, the following should occur (this does occur in some pounds/shelters/organisations but not all):

1) The cat's behaviour is assessed, to try and determine if the cat is socialised or unsocialised.
2) The cat is assessed for illness and/or injury, if the cat’s behaviour allows this. Sometimes unsocialised cats displaying very fearful behaviour need to be sedated or anaesthetised before assessment can occur. Therefore, if a veterinarian is not available, this may not be possible.

3) The cat is checked for a microchip or other identification. This can be extremely difficult with unsocialised cats displaying very aggressive behaviour (see note above).

If the cat is identified, the following steps generally occur:

- Attempts will be made to contact the owner using the identification details.
- If the owner cannot be located, the cat will be kept for a hold period (usually for 7-8 days) to allow a possible owner to come forward. The cat will be listed on the lost and found databases during this time, lost and found flyers may also be put up in the area where the cat was found and local veterinarians contacted.
- If the owner cannot be located and the cat is seriously ill or injured and it is not considered possible to keep the cat comfortable for the hold period, the cat will be humanely killed (with the authorisation of a warranted inspector, if within the 7-day hold period).

If the cat is not identified, the possible outcomes for that cat are:

- The cat will be kept for a hold period (usually for 7-8 days) to allow a possible owner to come forward. The cat will be listed on the lost and found databases during this time. Lost and found flyers may also be put up in the area where the cat was found, and local veterinarians contacted.
  - If the cat is seriously ill or injured, and it is not considered possible to keep the cat comfortable for the hold period, the cat will be humanely killed.
  - If, after a "settling down" period has passed, the cat appears to be unsocialised, and the cat displays fearful (and aggressive and dangerous) behaviour, and the assessor considers that the cat is most likely to be unowned and the cat unsuitable for rehoming due to his/her behaviour, the cat will be humanely killed (with the authorisation of a warranted inspector). This occurs where the cat's behaviour indicates that holding the cat would be distressing and cruel for the animal and would put staff at significant risk of injury during the hold period. The time given to see if the cat calms down, if any, will depend on the organisation and assessor, and varies considerably (see later for further
information that addresses the inconsistent nature of cat behaviour assessments).

If no person comes forward to reclaim the cat (it is unusual for cats to be reclaimed), after the hold period, the cat's health and behaviour will be assessed again to determine if the cat is suitable for rehoming.

- If the cat is deemed suitable for rehoming, efforts are generally (dependent on organisation) made to rehome him/her.
- If the cat cannot be rehomed or develops health or behavioural issues whilst in care that preclude rehoming, the cat may be humanely killed.
- If the cat is not deemed suitable for rehoming due to health or behavioural reasons, the cat will be humanely killed.

Comments were made by some stakeholders about trying to provide adequate protection for roaming or lost microchipped cats and non-microchipped companion or stray cats. Procedures should be followed to give the cat and owner/caretaker (if there is one) every possible chance to be reunited. In fact, the NCMSG strongly believe that all organisations should follow a consistent and comprehensive protocol to ensure that cats have the best outcome possible. This includes recommending steps to follow for a member of the general public who finds a cat. This protocol should include the following procedures:

3.1) If the cat has no external identification and is a healthy stray then, if it is possible and safe to do so, the cat should have a paper collar put on and returned to where he/she was found. For example, the New Zealand Companion Animal Council (NZCAC) has a free paper collar download available from: www.animalregister.co.nz/images/downloads/170720_pet_collar_template.pdf.

- Finder details should be put onto the collar with a request for the owner/carer to get in touch with the finder to let them know the cat has a home/carer. Ideally, this should be done BEFORE the cat is taken to a sheltering organisation. Once the collar has been put on the cat a few days should be allowed to pass to give a possible owner/carer time to get in contact. If, after 2-3 days, no one comes forward and other ways of checking for a carer (for example, asking neighbours and putting up flyers, NZCAC also has a free lost pet flyer available for download and individualisation: www.animalregister.co.nz/lostpetflyer.aspx) have been tried and have also failed, then the cat can be taken to a sheltering organisation.
the cat is sick/injured, or in an unsafe location or situation, the cat should be taken to a sheltering organisation without delay.

3.2) Once the cat is taken to a sheltering organisation the cat should be checked for a microchip and for external identification before any decisions are made about the cat's future. The NCMSG is recommending that it be mandatory for cats to have physical identification and a microchip and this should increase the numbers of cats that benefit from the protection of being identified.

3.3) If no identification can be found, or the owner/carer cannot be contacted through the available identification details, the cat should be listed on lost and found databases and websites where people may search for a lost cat. This may include:
   - New Zealand Companion Animal Register (NZCAR)
   - Pets on the Net
   - Neighbourly
   - Trade me.

These measures are all recommended to increase the likelihood of owners/carers finding their lost cats. It should be noted that NZCAR currently has a free scanner offer that is open to veterinarians, SPCAs, rescue organisations, pet shops, or any other organisation that helps to repatriate lost animals. Furthermore, the New Zealand Companion Animal Council is bringing pet facial recognition technology to New Zealand; this will be another method to help reunite lost animals, including cats, with their owners. The NCMSG is also encouraging all veterinarians and animal health care providers to scan all animals at every consultation, to check that microchips are still working and to prompt owners to update their details.

4) Behaviour assessment of the cat should be carried out before any decisions are made about the cat's future. Additionally, the NCMSG is advising that a standardised and robust behaviour assessment is used to consistently evaluate cats throughout NZ. The SPCA will be developing guidelines to help those assessing cats to be as objective, fair and consistent as possible in the decision making process.

It is important to highlight that it is NOT suggested anywhere in the plan that all unmicrochipped cats be killed. In fact, it is explicitly stated in the plan that every effort should be made to find a non-lethal outcome for each cat. Humane killing should be the last resort, though this will likely be the outcome for unsocialised stray or true feral cats.
At present, unsocialised stray or feral cats are already killed; consequently, no recommendations are anticipated to lead to an increase in the number of cats killed.

Additionally, if individual cat owners/caretakers are particularly worried about their cats, they have the opportunity to use a GPS tracking unit for their cat (in addition to microchipping and external ID) and new facial recognition technology when it becomes available in New Zealand. Furthermore, confining cats to the owner/caretaker's property will also help to safeguard the cats.

Another concern expressed was that microchipping may be prohibitively expensive for some people. In order to address this potential limiting factor, the strategy also calls for free or low cost microchipping as part of cat management campaigns.

**Stray cat hold times**

Some stakeholders believed that the hold time should be increased for cats of unknown ownership status or cats whose owners cannot be found. However, holding cats for long periods of time is a significant welfare issue. If the cats are truly unsocialised stray or feral cats, there is little to no chance that they will be claimed, this means that these cats will be subjected to significant suffering for no reason as they are extremely distressed by being held. It is believed that the mandatory 7-day hold period already subjects unsocialised stray or feral cats to unreasonable distress. Therefore, if a behavioural assessment indicates that the cat is an unsocialised stray or feral cat, the best outcome in terms of animal welfare, is for that cat to either be returned (after desexing) to where he/she was living if he/she is healthy and this is possible, or, if a non-lethal option is not available, then the cat should be humanely killed without the cat serving the full 7-day hold period. There are significant welfare issues associated with the hold period for even a socialised cat; confinement is stressful, cats may become ill, particularly with diseases that have a stress-induced component. For socialised cats a 7-day period is considered to be a reasonable balance between allowing the owner time to find the cat and protecting the cat's welfare by not subjecting him/her to a long holding confinement. It is important to highlight that the vast majority of even owned cats are never reclaimed by their owners (usually less than 2%). If the recommended procedures are followed, cats that have owners/carers looking for them should have ample opportunity to be claimed. In addition, stray cats will still be given every opportunity to find a new home after their 7-day hold period is completed as long as they are of suitable behaviour and health.
Some stakeholders made the valid point that some (potentially many) adult cats displaying unsocialised behaviour could be socialised, given enough time and resources. However, due to the numbers of these cats being brought to pounds and shelters this is not feasible, simply due to the fact that there are not enough resources (human, time or financial) available to try and socialise all of these cats. In order to understand the magnitude of this issue, consider that approximately 1000 cats/year are humanely killed because they are unsocialised stray or feral cats, in just one shelter in New Zealand.

Indeed, currently there are not enough homes available for all socialised cats, so even if the unsocialised cats were socialised, it would currently be extremely difficult to find them homes. For some of the cats, it may also cause unreasonable and unnecessary distress and a negative quality of life.

**Mandating components of the cat management plan**

A number of stakeholders expressed the belief that various components of the plan should be mandated. The NCMSG acknowledges that it will likely be necessary to mandate components of the plan in order to make them effective. However, the group is not in a position to do so; this mandate will need to come from central and local government. The NCMSG also believes that change will need to be incremental and that part of this will be incremental change in the public's attitudes and behaviours towards cats, achieved through education and awareness campaigns.

**Legislation**

Although there was general agreement from stakeholders that legislation should be based at central government level and standardised across the country, there were mixed opinions about where the responsibility should lie for the implementation of legislation. Most stakeholders were in favour of a collaborative approach between central and local government and welfare organisations. Some stakeholders questioned what the role of a national cat management task force would be in this mix. These are valid questions and will need to be addressed. However, the national cat management plan is a *strategic* plan, not an *operational* plan. If the plan is to be adopted, then further work will need to be done to devise an appropriate operational plan that includes detail on how the different components and involved stakeholders will work together to achieve the desired outcomes. Funding and support from government and other stakeholder groups will be necessary in order to achieve this.
**Monitoring and reporting on management strategies**

Stakeholders expressed their belief that the effectiveness of the management strategies would need to be monitored and reported in a way that is available to the public. The NCMSG is in full agreement and has made recommendations in the document regarding this.

**The need for more research**

Many stakeholders believe that more research is needed and the NCMSG recognises and agrees the importance of research specific to the NZ situation. In the draft plan the group has listed a large number of areas in which we believe more information relating to cat management is needed. This list has been revised and added to after the consultation (please see further information in the final discussion paper). This includes a need for more research about New Zealand opinions on cat management and also about which management strategies are the most effective whilst retaining welfare standards and minimising the need for lethal control of cats.

In addition, concerns were raised about the lack of evidence of the impact that companion and stray cats are having on New Zealand native species and ecosystems. Some stakeholders thought that the negative impact of cats was over-estimated in the draft background document and commented that many native animals are killed by other causes, which may have a greater impact than cats (for example, poisons, window collisions, road traffic accidents and ecological degradation). Other stakeholders expressed the opposite point of view, that the negative impact of cats was underestimated. The NCMSG agrees that more information is needed about the impact that cats have on native species and ecosystems. Research is ongoing in this area and is wholeheartedly supported by the NCMSG. Based on the evidence that is available, cats can and do have a negative impact on native species and ecosystems and are not currently being adequately managed to mitigate this. Therefore, the NCMSG feels that improvements in cat management are needed while the research is ongoing; this is why the national cat management plan has been developed. However, it will need to be modified and refined as more evidence and evaluations are available.

It was highlighted that some groups have collected data in areas where they believe the strategy is lacking. Some stakeholders also feel that individuals, communities, and groups around the country have information that has not been utilised. The NCMSG agrees that this is likely and the group needs access to the data that people are suggesting they have.
Therefore, we call for this information, and a resource to manage this information, to be made available. In addition, the NCMSG calls for people and resources to help assess this data and make an appropriate research plan, as our group does not have the resources to do this in isolation.

**Cat categories**

There were concerns expressed by some stakeholders that the division of cats into categories and the use of this categorisation in the management algorithm is too complicated. The NCMSG recognises that this categorisation system may appear to be overly complicated. However, the cat sub-populations involved in the unwanted cat problem are complex and so, as a reflection of this, the categorisation system is also relatively complex. In particular, the cats previously referred to just as 'stray cats' cannot realistically all be combined into one category (as many suggested); the diverse characteristics of this group must be acknowledged and management must differ for the different subcategories. In addition, the added divisions within each category will allow the different groups of cats to be legally managed while also providing added protections for cats previously unprotected.

**Trap neuter and return (TNR)**

As expected, the suggestion that TNR be one of the management strategies available to communities received much comment and very mixed responses; some stakeholders were supportive and others vehemently opposed to the use of TNR, saying that all stray cats should be humanely killed or rehomed. There was concern expressed that no unowned cats (including managed stray, colony, or community cats) should be allowed, as if the cats are not having all their needs met by people, they may suffer from poor welfare and also will have more than a minimal impact on wildlife.

Under the proposed plan, all cats that can be rehomed would be rehomed. Managed and targeted TNR (mtTNR) simply offers a non-lethal option, in appropriate circumstances, rather than just humane killing, for cats that cannot be rehomed. It is important to highlight that the use of mtTNR as proposed in the strategy is a means to reduce unowned cat numbers (to none, ideally, or at least minimal numbers) in areas where trap and humane killing programmes (TE) are not appropriate or desired by the community; ongoing management of cats through mtTNR is not the goal. In addition, stakeholders should note that TNR is not considered a wildlife conservation tool and is not intended for use with feral cats. TNR is a short-term strategy (albeit short-term meaning over some
years) to reduce the numbers of stray cats with the ultimate goal of having very few or no stray cats in New Zealand. Despite TNR not being a conservation tool, the reduction in cat numbers achieved through TNR programmes in areas where otherwise cats would not be managed will help conservation efforts over the long term. Furthermore, the plan clearly recommends that mtTNR be conducted with adherence to best practice guidelines and used in conjunction with best practice cat colony management; this will help to protect cat welfare and also have benefits for the community (less likelihood of nuisance from cats) and wildlife (cats that are having all of their needs provided are likely to have less of a negative impact on wildlife). The NCMSG believes that there is the need for mtTNR and best practice cat colony management guidelines to explain what is believed to constitute a well-managed cat colony. As new evidence comes to light these guidelines can be adapted and improved. Funding is needed to provide the resources needed to produce, distribute and help to implement these guidelines.

It is acknowledged that mtTNR is not appropriate in all situations. In those instances where mtTNR is inappropriate (for example, near a sensitive wildlife area) the NCMSG supports trap and rehome. Where no other humane and non-lethal opinions are available the NCMSG reluctantly acknowledges that trap and humane killing methods for stray cats may be necessary, if this is the only option available and cat numbers must be reduced to safeguard the survival of vulnerable native species.

*Feral cat eradication*

Stakeholders generally accepted the need for humane eradication of feral cats. It was commented that methods of humane killing for all cats should be specified and, preferably, should not include poisons. Methods of humane killing are intentionally not listed in the plan, as this document will not be updated regularly. Over time further research and scientific evidence should lead to improved and more humane feral cat control methods and it is vital that the most up to date and humane methods are used. It is of utmost importance that those reading the cat management plan and involved in feral cat control refer to those sources that have regularly updated best practice evidence-based guidelines. This is what is recommended in the plan.

*Concerns about the cost of cat confinement*

A number of stakeholders expressed concern that the cost of cat confinement would be prohibitive. Although there would certainly be costs associated with this, it is important to highlight that these are really no different from the costs involved with dog
confinement. The public has accepted the need for dog confinement and the associated costs. Education of the public so that cat confinement is accepted in the same way as the public have generally accepted the need for dog confinement, will be needed to facilitate a gradual shift in attitudes, behaviour and social norms. Cat confinement and the associated cost will then become an accepted part of responsible cat ownership, just as it is for dog ownership.

Some concern was expressed that, if confinement of cats becomes more widespread, wandering cats may be targeted. However, no evidence to support this concern has been found. It is also important to highlight that the management plan does not recommend that cat confinement be mandated across the whole country but that it should be encouraged and facilitated. Some local governments may decide that cat confinement should be mandated at a local level, particularly in sensitive wildlife areas.

Containment or restriction of outdoor access for cats is generally supported in sensitive wildlife areas. However, there were differing opinions on what areas need protecting. Some stakeholders believe that cat confinement in urban or farm settings may provide less benefit because native species are less common and pest birds and rodents are abundant. Other stakeholders expressed the contrasting view, that urban green areas are an important source of wildlife interaction for the majority of the population and should be protected from predators. The NCMSG acknowledges that there will be diverse opinions on the merit of protecting specific areas and, also, that a rural-urban divide is likely in these opinions. It will be important for councils and organisations involved in cat management programmes to decide what a sensitive wildlife area is and plan which areas in their jurisdiction are not suitable for mtTNR and implement other cat management methods in those areas. On a national level certain areas can be designated as no mtTNR zones, then decisions can be made locally about other areas on a case-to-case basis with local government/councils. In those areas that local government and organisations decide are sensitive wildlife areas, a decision will need to be taken about how to manage cats in those areas. If a trap and rehome or a humane kill programme is decided on to manage cats, then it is important that the council takes responsibility for this. Welfare organisations cannot be expected to eradicate cats. Not only would this go against the mandate of the majority of these organisations, it would also be contrary to what their supporter base would expect and desire. Therefore, such actions could result in the loss of financial support, on which these organisations rely. If the council will not or cannot undertake a humane kill programme, serious discussion is required about the risk of doing nothing to manage cats in that area as opposed to a welfare organisations.
instigating and maintaining a mtTNR programme. Ongoing assessment and adjustment will be needed.

**Nuisance behaviours**

No stakeholders want the management strategy to, in any way, allow or encourage cruelty towards cats. A number of stakeholders expressed the opinion that a definitive and unambiguous list of nuisance behaviours should accompany the management strategy to try and prevent repercussions for ‘normal’ behaviours considered nuisance behaviours by some people. This is a valid concern but in reality, all cat ‘nuisance behaviours’ are really normal behaviours. Education is a key component of making people aware and accepting of normal cat behaviour, but also a key component of ensuring that cat owners limit the nuisance their cat causes to others (even if the nuisance comes from normal cat behaviour). Confinement of cats will assist with mitigating nuisance issues. Stakeholders should also be aware that nuisance behaviours are set out under local government law, the cat management plan cannot define these. Each local area would have to examine and assess whether to update their local government laws about what constitutes nuisance behaviour for cats.

**Summary**

To address the feedback from the consultation process, changes, detail and clarifications have been added to the sections discussed above and others, including cat confinement, cat identification and collars, anti-predation devices, mtTNR/TNR, TE, stray cat management and research needs.

The National Cat Management Strategy discussion paper is now finalised and is attached to this email.

Thank you once again for your engagement and input. The NCMSG looks forward to New Zealanders working together to improve cat welfare, responsible cat and mitigate cats’ negative impact on wildlife through well designed and managed cat management that are both humane and effective.

Yours sincerely,

The National Cat Management Strategy Group