



Submission

Explanatory Report for the Draft Code of Welfare (Companion and Managed Stray Cats) 2023



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Introduction

Please note: This is an explanatory report for the draft Code of Welfare submitted to NAWAC for consideration. This document has not been issued by the Minister for Agriculture and does not replace the current Code of Welfare (Cats) 2018 or any other related legislation.

Codes of welfare are developed by the National Animal Welfare Advisory Committee (NAWAC). Under section 70 of the Animal Welfare Act 1999 (the Act), the Minister, NAWAC, or any other person may prepare a draft code of welfare. If a specific industry or organisation believes a new code, or an updated code, is needed, they can invest their own resources to develop a draft code before sending it to NAWAC for consideration. NAWAC Guidelines for Writing a Code of Welfare can be found [here](#).

Please note that as such, the draft code released by SPCA in its current form reflects the work of SPCA which has yet to be reviewed by NAWAC.

1. Why is a code of welfare for companion cats and managed stray cats important?

According to New Zealand's Animal Welfare Strategy, New Zealanders have strong animal welfare values. Animals play an important part in many aspects of New Zealand life, including as companions. New Zealanders believe that it matters how animals are treated (Ministry for Primary Industries [MPI], 2013).

Cats are sentient animals that are protected under the Animal Welfare Act 1999 (the Act). The Act establishes the fundamental obligations relating to the care of animals and provides for the development and issue of codes of welfare. Codes of welfare expand on the basic obligations of the Act by setting minimum standards and recommending best practices for the care and management of animals. As described on MPI's website, it is important to have codes for different species because, with so many species and situations, it is impractical to cover all standards in the Act itself.

Domestic cats (e.g., companion and stray cats) are commonly found throughout New Zealand. Cats are a popular companion animal, with over 1.2 million companion cats in New Zealand homes (Companion Animals New Zealand [CANZ], 2020). Stray cats inhabit many New Zealand communities. These two types of cats, those that are owned and have a home, and those who have varying degrees of provision of care from people, overlap in the places they are found, contribute to each other's populations, and have people deeply concerned about their welfare.

In all instances where cats are kept or provided care, their welfare may be compromised if their physical, health, behavioural, mental, and emotional needs are not met.

The National Animal Welfare Advisory Committee (NAWAC) considers the relevance of all codes should be reviewed after 10 years (NAWAC, 2016). The codes of welfare are intended to be flexible enough to be



implemented, modified and improved as community expectations, good practice, scientific knowledge, and technical advances allow (MPI, 2023).

Advancements in our understanding of what cats need for welfare have been made since the Code of Welfare for Companion Cats (the Code) was originally drafted in 2006 (issued in 2007) and over the seventeen years subsequent to the first draft, we have learned more about the negative impacts of handling, the importance of hiding and perching, and the importance of reducing stress in diverse settings such as the home, the veterinary clinic, the shelter, places where cats are bred or used in research, testing, and teaching, and where cats live within communities.

We have also learned more about the importance of positive welfare for cats, including the importance of play, relationships with people, and the role of environmental enrichment in providing opportunities for cats to experience positive emotions. This report summarises the current evidence of what is important for domestic cat welfare and demonstrates why an updated Code is long overdue.

There are many challenges for cat welfare. The updated Code aims to set standards of care that help address problems that impact cat welfare.

Recent trends in cat ownership indicate there is still work to do to motivate owners to desex and microchip their cats. In 2020, approximately 88 % of companion cats were reported as desexed, but we should be concerned because this is a decrease from the 93 % of cats reported desexed in 2015 (CANZ, 2020). The number of cats microchipped has increased to 49 % (CANZ, 2020), however, this still leaves more than half of all companion cats without a reliable means to help ensure they are reunited with their owner should they become lost.

Cats are the most common animal that enter our SPCA centres each year. Cats end up in our shelters for different reasons with many due to result of unplanned breeding or behavioural problems. These reasons are consistent with what we see globally (Alberthsen et al., 2016; Hawes et al., 2018; Lambert, 2014; Marston & Bennett, 2009; New et al., 2000; Sandøe et al., 2019; Zito et al., 2016), and there is a role for an updated code to address the root causes of these problems.

Ensuring behavioural needs are met is an important way to improve cat welfare in the home and in shelters, breeding and boarding catteries, and in research, testing, and teaching facilities. Ensuring a cat's behavioural needs are met can also help address relinquishment to shelters and rescues. A number of surveys have demonstrated that to some extent owners provide environmentally enriched homes for their cats (Alho et al., 2016; Lawson et al., 2020; Strickler & Shull, 2013). However, at least one study has found that owners are not meeting their cat's needs in confined home environments (Lawson et al., 2020).

We have included Minimum Standards for colony management of stray cats because this is a way to reduce welfare harms that stray cats face and reduce the number of stray cats in our communities. Furthermore, a person who manages a cat colony can be considered a person in charge of the cats and therefore, subject to the code requirements. Undesexed males and females in a TNR-managed colony are more likely to be injured or have impaired health (Gilhofer et al., 2019). Reducing the number of unplanned kittens born each year can help reduce the number that end up in shelters or experience poor welfare in communities. Kitten mortality in stray cats has been reported as high as 75 % before six months of age, with trauma being the most common cause of death (Nutter et al., 2004). Free-roaming kittens in Israel have been observed to have the highest prevalence of emaciation and thinness, the lowest body condition scores, and a higher prevalence of severe injury or disability compared to adults (Gunther et al., 2018).



On average, 30 % of kittens that come into SPCA Centres each year are categorised as not healthy at intake including: Dead on Arrival; Unhealthy not treatable; Unhealthy treatable (urgent); Unhealthy treatable (non-urgent) (SPCA Intake Health Data: Jan 2021-Jul 2023).

The latest report from Companion Animals New Zealand (CANZ, 2020) indicates there are gaps in knowledge of owners providing for the physical, health, behavioural, mental, and emotional needs of cats. These gaps include:

- The main barriers to desexing include the cost of the procedure, not making it a priority, and thinking it is important for a cat to have a litter (CANZ, 2020). Additionally, cat owners are concerned about the process, intend to breed their cat, or consider their cat is too old.
- The main barriers to microchipping include not feeling it is necessary and the cost, or that it is not legally required (CANZ, 2020). Additionally, cat owners do not microchip their cats because they have not made the time yet to do it, or did not realise cats could be microchipped, or keep their cats inside (CANZ, 2020). The primary issue with microchip use is that owners must keep their cat's information updated if there is a change of contact details.
- Only just over half of cat owners think exercise, enrichment, and annual veterinary visits are important, meaning nearly half of all cat owners may not be providing management and resources that facilitate good cat welfare. This may reflect that owners think their cat gets enough exercise and enrichment whilst outdoors. Even if a cat has access to the outdoors, exercise, enrichment, and annual veterinary visits are essential for cat welfare.

2. What will it be used for?

The purpose of the Codes is to provide guidance to the owners and persons in charge of cats about the standards they must achieve to meet their obligations under the Act. Codes of welfare also provide guidance for owners or persons in charge of an animal that act as a definitive government source of information that can be adapted and shared.

The Code is important for communicating expectations about what cats require for good welfare. The Code indicates what owners and persons in charge of cats must do to provide the care of cats (i.e., minimum standards). The Code also includes recommendations for best practice to encourage the adoption of the highest possible standards of husbandry, care, and handling. Advice is given to encourage the provision of care to achieve a high level of welfare for cats. Explanatory material is provided where appropriate.

Failure to meet a minimum standard in the Code may be used as evidence to support a prosecution for an offence under the Act. A person who is charged with an offence against the Act can defend themselves by showing that they have equalled or exceeded the minimum standards in the Code.

Our (SPCA) inspectors are requesting support in promoting more responsible cat ownership in New Zealand. Updated standards will assist our inspectors in educating members of the public and issuing mitigation or compliance notices. Without a more updated supporting (evidence-based) document, it can be difficult to facilitate human behaviour change on the front lines of preventing animal cruelty and advancing animal welfare.

3. Who will it apply to? What animals will it apply to?

The Code is intended for all persons responsible for the welfare of domestic cats, including those kept as companions, for breeding, showing, kept in temporary housing, used in research, testing, or teaching or for



any other purpose. Under the Act the “owner” and every “person in charge” of an animal is responsible for meeting the legal obligations for the welfare of animals under their care. For cats, the owner of the animals may place them in the care of others who become the persons in charge, but this does not derogate from their responsibility to ensure that the requirements of the Act are met. The owner and person in charge of the animals will ensure they meet minimum standards relating to the provision, design and maintenance of the facilities and equipment, allocation of operational responsibilities, and ensure competence and supervision of employees.

4. What would happen if you did not have the Code?

Cats experiencing sub-optimal or poor welfare will continue to do so. The current Code is outdated and does not include enough minimum standards to provide for adequate advice on what cats need for their physical, health, behavioural, mental, and emotional needs.

Our (SPCA) Inspectorate will continue to have inadequate tools to address welfare cases related to cats. The inability to refer to an up-to-date resource that provides information to the owners and persons in charge of these species about the standards they must achieve can result in subjective assessments being made by inspectors and veterinarians, that make it difficult to achieve national consistency in enforcement. It reduces the ability to impact wider industry changes if each investigation is based on outdated benchmarks in terms of minimum standards.

Additionally, not having a more current Code of Welfare for Cats will signal that our most popular companion animal species is not considered important by the government, despite New Zealanders caring deeply about their cats. According to the latest Companion Animals New Zealand survey, 74% of cat owners in New Zealand consider their cats to be ‘a member of the family’ (CANZ, 2020).

New Zealanders expect that our animal welfare system is effective for all animals, not just those that contribute to our primary industry exports. Companion animals, animals in research, animals in the wild, animals used in entertainment, and farmed animals such as fish, and chickens must receive equal and adequate consideration.

Once the Code is submitted, SPCA will state that the code has been submitted to NAWAC and MPI on its website and will consider making the draft code available for our Inspectorate and for people to view until such time as the Code is progressed.

This will help ensure that people have access to up-to-date information on cat care while the Code progresses through MPI’s process, which in SPCA’s most recent experience with the temporary housing code and the rabbit code can take a long time. However, until the Code is issued by the Minister, the document will not have any legislative backing.

5. What alternatives to a code of welfare (for example, industry administered quality assurance system) did you consider and why are they not appropriate?

We did not consider alternatives to a code of welfare because the Code of Welfare for Companion Cats currently exists. Codes of welfare are intended to be based on current science, best practices, and technology available as a base for Minimum Standards and Recommended Best Practices. With the current code being seventeen years old, it has become an outdated source of information. New Zealanders regularly rely on national organisations, charities, and local councils to provide the most up to date information and guidance about cat welfare.



Guidance is not the same thing as standards under the Act. As described on MPI’s website, MPI “leads and facilitates the management of animal welfare policy and practice in New Zealand.” SPCA looks forward to engaging with MPI to ensure that the enforcement of companion animal welfare in New Zealand remains robust.

Our organisation considers that a code of welfare is required to provide information to the owners and persons in charge of cats about the standards they must achieve to meet their obligations under the Animal Welfare Act and assist our inspectorate.

Publishing an updated code of welfare for companion cats will assist in addressing public concern for cats in New Zealand.

6. Are the minimum standards in the code the minimum necessary to ensure the physical, health, and behavioural needs of the animals will be met? Do they reflect good practice, scientific knowledge, and available technology? Please provide supporting evidence. What alternative minimum standards did you consider and why did you decide against them?

In the following section, we provide rationale for the minimum standards in the draft Code based on the current scientific knowledge, expert opinion, good practices, and available technology for cats. The sections below correspond to the different sections in the draft Code where there are minimum standards.

PART 2: Cat Ownership



2.1 Handling: Minimum Standard No. 1 – Handling Cats

Gentle handling is important for cat welfare. Gentle handling techniques are less stressful than more forceful handling/restraint and allow the cat to retain some sense of control, which is important for the cat’s welfare (Gourkow & Fraser, 2006; Rodan, 2010; Rodan et al., 2022). Gentle handling is also an important aspect of pain management for cats (Gruen et al., 2022; Steagall et al., 2022).

Gentle and respectful interactions help reduce fear and stress cats may experience and the chance they will respond with aggression to being handled (Burns et al., 2020; Moody et al., 2019; Riemer et al., 2021; Rodan, 2010; Rodan et al., 2022).

Passive restraint can be achieved by holding a cat secure but with the least amount of restraint (Rodan, 2010). Passive restraint in cats has been validated as gentle handling that uses the least amount of restraint needed to hold a cat in a position and where the cat can choose how they hold their head or body including their limbs, whilst not leaving the area directly in front of the handler (Moody et al., 2019). When compared with more forceful restraint, passive restraint can reduce how much a cat struggles and lead to fewer indicators of fear, anxiety, and distress (Moody et al., 2018, 2019, 2020). Examples to assist passive restraint include use of towels which also allow a cat to hide, covering a table with a towel for better traction,



examinations done in a carrier or a cat hide, paediatric hold for neonates or young kittens (Association of Shelter Veterinarians [ASV], 2022; Rodan et al., 2022). Providing a cat with treats throughout the exam and afterwards and using a soft and calm voice can also help minimise stress (ASV, 2022; Rodan et al., 2022).

Cats can be trained to participate in handling, including training them to allow for examinations, walking on a scale, or entering a travel crate (Gruen et al., 2013; Pratsch et al., 2018).

Cats must not be ‘scruffed’ to hold them in a restraint or to lift them as this causes stress and distress to cats. ‘Scruffing’ describes a method of restraint where a person uses their hands or a clip to firmly grip an animal by the loose skin at the back of the neck. Scruffing induces an immobility response from the cat, which is considered an inappropriate method of restraint. The forceful restraint imposed by ‘scruffing’ by hand or with a clip, or in full body restraint is stressful for a cat (Moody et al., 2018, 2020; Nuti et al., 2016; Pozza et al., 2008).

International cat experts including the Association of Shelter Veterinarians, the International Society of Feline Medicine, and the American Association of Feline Practitioners all advise that scruffing, use of skin clips, and use of full body restraint are no longer acceptable to use during veterinary examinations in the clinic (ASV, 2022; Rodan et al., 2022). ‘Scruffing’ will often cause a cat to be fearful and panic and provoke or escalate defensive aggression from a cat (Rodan et al., 2022).

It is the role of the veterinarian to establish a culture of kindness in the practice and avoid using either forced restraint or punitive training or management methods (Hammerle et al., 2015). Studies indicate that cat owners are more likely to disagree with more forceful handling, including ‘scruffing’, during veterinary treatments (Couture et al., 2022).

It is recommended that unsocialised stray cats are not physically handled for veterinary exams unless they are sedated or anaesthetised (Rodan et al., 2022). Unsocalised stray cats can be handled with traps, cat dens, or multi-compartment enclosures to help ensure handler safety (ASV, 2022).

Human and cat interactions should be on the cat’s terms. Cats will vary between whether they want to be picked up, where they want to be touched, and how much interaction they want with people and other animals (Haywood et al., 2021). Cats may be more affectionate with adults than with children (Hart et al., 2018; Haywood et al., 2021). A person should calmly approach a cat before handling or picking them and allow them to sniff their hand before indicating they want to interact further (Haywood et al., 2021).

2.2 Purchasing or Adopting a Cat or Kitten: Minimum Standard No. 2 – Purchasing or Adopting a Cat or Kitten

Provision of care for a cat should fulfil the five domains of animal welfare (see Mellor, 2015; Mellor & Reid, 1984; Mellor et al., 2020) which link the provision of care related to nutrition, environment, health, and behavioural interaction with a cat’s mental state. Prospective adopters’ knowledge about the needs of a companion animal can impact their expectations and the quality of the human-animal relationship (Gazzano et al., 2015; Haywood et al., 2021; O’Connor et al., 2016). Therefore, it is essential that new cat owners are provided information related to the cats needs such as medical history, desexing, microchipping, behaviour, and diet.



It is accepted that responsible cat ownership includes:

- Microchipping and use of a collar and tag for identification purposes (American Veterinary Medical Association [AVMA], 2016; CANZ, 2018, 2020; National Cat Management Strategy Group [NCMSG], 2020; New Zealand Veterinary Association [NZVA], 2018).
- Desexing before a cat reaches puberty (NCMSG, 2020; NZVA, 2018).
- Appropriate health care 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) (NZVA, 2018),
- Adequate socialisation, training, exercise, and mental stimulation appropriate to their age, breed, and health status (AVMA, 2016; CANZ, 2020).
- Recognition of a decline in a cat's quality of life, and decisions, made in consultation with a veterinarian, regarding appropriate end-of-life care (e.g., palliative care, hospice, euthanasia) (AVMA, 2016).

Cat ownership is a commitment for a cat's lifetime, the average lifespan of a desexed companion cat is 14-16 years (NZVA, 2018). Finding an appropriate cat involves careful deliberation and reflection on what qualities will suit the owner's home and lifestyle (AVMA, 2016). Cat ownership also requires an investment of time and resources for food, containment, veterinary care, and provision of care when the owner is away (AVMA, 2016; NZVA, 2018; Rodan & Sparkes, 2012). Cat owners should be prepared to provide alternative arrangements for the cat if, for some reason, it is no longer possible for the owner or carer to look after the cat (NZVA, 2018).

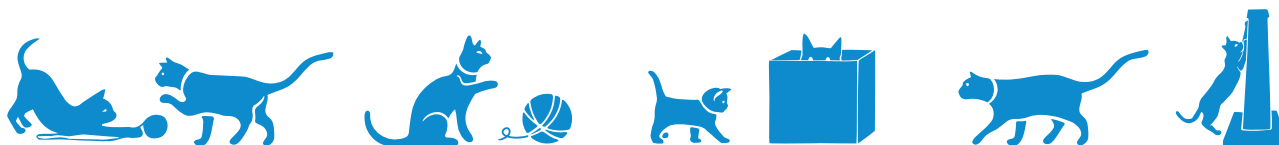
Keeping cats at home and restricting their roaming is increasingly acknowledged as a part of responsible cat ownership (NCMSG, 2020). Cats allowed unrestricted outdoor access are at increased risk of injury from traffic, dog attacks or cat fights, increased risk of disease transmission, becoming lost or stolen, or trapped, or exposed to toxins for pest management (Bruce et al., 2019; Conroy et al., 2019; Loyd et al., 2013; Rochlitz, 2003a, 2003b, 2004b, 2004a; Tan et al., 2020; Wilson et al., 2017).

Introducing a cat or kitten outdoors for the first time at a new location should be done gradually and under supervision to ensure the cat or kitten does not run off (International Cat Care, 2019). A cat or kitten can be trained to eat their meals indoors to help ensure they return home if allowed access outside (International Cat Care, 2019).

As noted later in this report, it is essential for owners to provide an enriched environment at home to ensure their cats mental, and emotional needs and reduce the risk of the develop of problematic behaviours.

2.3 Identification: Minimum Standard No. 3 – Identification

Accurately identifying a cat can help reunite them with their owners in case they become lost or are stolen (Alberthsen et al., 2013; Goodwin et al., 2018; Lancaster et al., 2015; Lord et al., 2007, 2010). This can be especially true during emergencies such as the 2011 earthquake in Christchurch, where 85 % of microchipped animals were reunited with their owners, compared with just 15 % of those without microchips (CANZ, 2018). In places where microchips are required, there are increased reunions of lost cats and families. Across three study sites in the United States, 39 % of microchipped cats were returned to their owners, compared to 2 % returned for un-microchipped cats (Lord et al., 2010). In Queensland,



51 % of microchipped cats were returned to their owners compared to only 5 % of un-microchipped cats (Lancaster et al., 2015).

Microchipping a cat with a registered microchip should be used as primary identification because the chip cannot be removed, dislodged, or lost without surgical intervention. Once a cat is microchipped, the 15-digit microchip number, and the animal and owner's details can be registered with a microchip registration database, such as the New Zealand Companion Animal Register, which is a national, private database (CANZ, 2018).

Most New Zealand cat owners who microchip their cats (74 %) do so to help ensure they are found if lost or stolen (CANZ, 2020). In areas where cats are targets of pest control, microchipping and microchip registration or other forms of identification can help distinguish owned or managed stray cats from feral cats in pest management plans.

Microchip operated feeders can help manage cat feeding behaviour (Hadar et al., 2022; Witzel-Rollins et al., 2022) and microchip operated doors can control when a cat has access into and out of a home via a cat door, including cats that enter a home, but do not live there (Arhant et al., 2022).

Collars with a tag attached showing the owner's name and contact details are a useful way to quickly identify a cat (Arhant et al., 2022; Huang et al., 2018; Lord et al., 2007; Weiss et al., 2012) especially if the owner has not kept their cat's microchip information updated (Lancaster et al., 2015). Collars that are designed as anti-predation devices including those with bells, warning systems, or are large and brightly colour (i.e., 'clown collars') can also help reduce the impact cats have on wildlife to varying degrees (Calver et al., 2007; Calver & Thomas, 2011; Crowley et al., 2019; Gordon et al., 2010; Hall et al., 2015, 2016).

Approximately one third of New Zealand cat owners use collars for their cats (Gates et al., 2019; Harrod et al., 2016). Cat owners in New Zealand have been found to use collars for identification and to reduce predation, however, they were also concerned about the safety of the collar, repeated collar loss, and their cat's acceptance of wearing one (Harrod et al., 2016). Cats that wear collars should be observed to determine if there are negative impacts to the cat (Arhant et al., 2022; Lord et al., 2010). Collars that are not made to break away from the cat should they become tangled on an object, or the body part of the cat can result in injuries (Calver et al., 2013). A collar should be sufficiently snug around the cat's neck to reduce the possibility of it catching on objects such as vegetation. Collars that are too loose around the neck can be a hazard, as the cat may get a front leg or their lower jaw caught through the collar, with potentially severe consequences (Calver et al., 2013). Two fingers should be able to fit snugly between the collar and the cat's neck (Arhant et al., 2022; Lord et al., 2010). Collar injuries and deaths are rare, and the benefits of identification and reduction in predation outweigh the risks to the cat (Arhant et al., 2022; Calver et al., 2013).

2.4 Introducing a New Cat to Companion Animals in the Home: Minimum Standard No. 4 – Introducing a New Cat to Companion Animals in the Home

Intercat aggression is common in multi-cat households (Levine, 2004; Lindell et al., 1997; Pachel, 2014; Ramos et al., 2019). A cat may be territorial (Bradshaw, 2016). Bringing a new cat into a home that already has a cat or a dog can result in fighting, with senior cats, kittens, and puppies particularly at risk of injury (Levine et al., 2004; Ramos et al., 2019). If early problems with confrontation occur, it is best to keep the new cat separated from the existing animal(s) until they become more compatible (Ramos & Reche-Junior, 2016).



Gradual introductions may take several days to weeks to months (Ramos & Reche-Junior, 2016). Introductions should be short and supervised to ensure the comfort and safety of all animals (Ramos & Reche-Junior, 2016).

On the rare occasions when a cat fails to settle into a new environment, veterinary advice should be sought to rule out medical issues, and behavioural advice sought on options such as pheromone sprays or diffusers, or medication that may help the introduction succeed (Ramos & Reche-Junior, 2016; Ramos et al., 2019). There may also be the need to decide if this is the right environment for the cat and whether rehoming to a family without other companion animals is more appropriate (Ramos et al., 2019).

Relinquishing (Changing) Ownership: No Minimum Standard

PART 3: Food and Water



3.1 Food and Feeding: Minimum Standard No. 5 – Food and Feeding

A number of factors need consideration for the amount of food and nutrients cats require including characteristics of the animal (e.g., pregnancy, lactation, age, sex, size, breed, state of general health and development, level of activity and exercise needed) (Fahey et al., 2008; Perez-Camargo, 2010; Teng et al., 2018a; Wichert et al., 2007, 2009, 2012; Zoran, 2008; Zoran & Buffington, 2011). The Association of the American Feed Control Officials (AAFCO) has nutrient profiles for growing kittens and reproduction, and one for adult maintenance (AAFCO, 2015). Food labelled with the AAFCO label on the container can be assured to meet the nutrient profiles that cats need (AAFCO, 2015). Care should be taken in feeding amounts of food that are required to maintain ideal body condition.

Kittens will begin weaning around three to four weeks of age and can be introduced to wet cat food around this time (Cline, 2012; Lawler, 2008; Martin, 1986; Sturgess & Hurley, 2007; Veronesi & Fusi, 2022). Kittens also start showing interest in their mother's food as early as three weeks; early access is important in facilitating learning to eat solid foods as they are weaned (Cline, 2012; Sturgess & Hurley, 2007). Weaning should be gradual to reduce the stress on the kittens and the queen (Gross et al., 2010; Lawler, 2008; Veronesi & Fusi, 2022).

Kittens have different nutritional needs as they grow and have much higher requirements for protein when compared to the young of other species (Sturgess & Hurley, 2007; Zoran, 2002). Kittens should gain approximately 12g per day in their first three weeks of life or 50-100g per week (Cline, 2012; Sturgess & Hurley, 2007; Veronesi & Fusi, 2022). Kittens should be fed enough meals in a day to maintain growth

Factors related to the food (e.g., nutritional composition, quality, and feeding frequency) also need consideration (Gray et al., 2005; Schlesinger & Joffe, 2011). Home-made diets may not contain all the nutrients a cat needs (Domínguez-Oliva et al., 2023; Michel, 2006; Pedrinelli et al., 2017, 2019; Wilson et al., 2019). Dog food should not be fed to cats as a sole maintenance diet, as it does not contain all the essential requirements to fulfil a cat's nutritional needs. Cats differ from dogs in their requirements for dietary protein, fibre, fats, vitamins, minerals, amino acid requirements such as taurine, and carbohydrates (Di Cerbo et al., 2017; Legrand-Defretin, 1994; Zaghini & Biagi, 2005; Zoran, 2002). Some cats enjoy raw



or cooked meat, offal, and fish but these should be fed only as part of a balanced diet (Schlesinger & Joffe, 2011). However, it is not recommended to feed raw fish, meat, or offal as these products can have high amounts of harmful bacteria which can cause illness in a cat (American Animal Hospital Association [AAHA], 2011; Quimby et al., 2021). A cat should not be fed dairy products as they may have difficulty digesting them, resulting in diarrhoea, or vomiting (Lawler, 2008; Sturgess & Hurley, 2007; Veronesi & Fusi, 2022).

3.2 Disease and Illness related to Diet: Minimum Standard No. 6 – Disease and Illness Related to Diet

Diseases in cats can be caused through inappropriate diet (Buckley et al., 2011; Buff et al., 2014; Di Cerbo et al., 2017; Domínguez-Oliva et al., 2023; Pedrinelli et al., 2019; Schlesinger & Joffe, 2011; Zaghini & Biagi, 2005; Zoran, 2002; Zoran & Buffington, 2011). If a cat has gone off its food for extended period, it can lead to an inadequate supply of essential nutrients. Anorexia in cats can be due to different reasons including underlying disease, medication, or palatability of food, and veterinary examination is needed to determine how to treat the cat (Michel, 2001; Zoran, 2008). Bowel movement problems in cats such as straining or diarrhoea (Jergens, 2012; Michel, 2001) or straining to urinate (Defauw et al., 2011; Gunn-Moore, 2003) may indicate underlying disease and must be brought to the attention of a veterinarian.

Cats are particularly susceptible to a lack of vitamin B1 (thiamine) (Di Cerbo et al., 2017; Legrand-Defretin, 1994; Zaghini & Biagi, 2005; Zoran, 2002). Vitamin A deficiencies are not common in cats, however, excess amounts in the diet can be a problem (Zoran, 2002) The feeding of a diet very high in liver can result, over time, in vitamin A toxicity (Hayes, 1982). This may cause severe mobility problems through fusion of the vertebrae (Hayes, 1982; Seawright et al., 1967).

Even when an owner feeds a nutritionally balanced diet, food sensitivity (adverse food reactions of both immunological and non-immunological origin) diseases can occur that result in skin disease (especially scratching or dermatitis) or in vomiting and diarrhoea (Mueller, 2020; Verlinden et al., 2006).

Dental problems may arise where soft food is the predominant diet (Buckley et al., 2011; Clarke & Cameron, 1998; Gawor et al., 2006; Mata, 2015). Feeding larger-sized cat biscuits or meat requiring chewing can help maintain healthy teeth. Regular tooth brushing, with brushes designed for cats, in between veterinary visits can help maintain dental health (Buckley et al., 2011; Mata, 2015).

Infections of the mouth can lead to welfare compromise in cats (Niemiec et al., 2020) Signs of mouth infections include bad breath, gingival bleeding or a sudden weight loss and an increase in a cat's thirst (Bellei et al., 2008; Winer et al., 2016). Periodontal disease caused by accumulation of dental plaque is common in cats (Cave et al., 2012; McFadden & Manfra Marretta, 2013). Cats can also experience pain from periodontal disease (Cave et al., 2012; Watanabe et al., 2019) However, cats can maintain a healthy weight and appetite and still have periodontal disease (Cave et al., 2012). Oral mouth infections can have systemic impacts with the potential to cause further disease in the body (Cave et al., 2012). Routine exams and cleaning can prevent the accumulation of dental plaque and help prevent the advancement of more serious dental disease (Niemiec et al., 2020).

3.3 Body Condition: Minimum Standard No. 7 – Body Condition

An adult cat should be well proportioned and have an observable waist behind the ribs when viewed from above and from the side. Ribs should be palpable (able to be touched or felt), but with a light fat covering.



The abdominal fat pad should be minimal; excessive abdominal fat indicates obesity, which can contribute to disease (Nestle Purina Pet Care Center, 2002).

Obesity in cats is a serious health issue that can lead to problems such as diabetes, joint issues, lameness, feline lower urinary tract disease, idiopathic hepatic lipodosis (IHL) and nonallergic skin conditions (Lund et al., 2005; Öhlund et al., 2018; Teng et al., 2018a; Zoran, 2002).

Obesity in companion cats is increasing in many countries (Kipperman & German, 2018; Teng et al., 2017) including New Zealand (Forrest et al., 2021). Weight management is multifactorial and needs to consider the individual cat and their environment including other companion animals in the home, and the human caregivers (Chandler et al., 2017; Forrest et al., 2021; Michel & Scherk, 2012; Öhlund et al., 2018; Sutherland et al., 2022; Witzel-Rollins et al., 2022). There are a variety of weight loss programmes available based on the cat's needs and fit with the family dynamic (Hadar et al., 2022; Michel & Scherk, 2012).

The Nestlé Purina Body Condition System 9- point scale is used in the updated Code (Nestle Purina Pet Care Center, 2002). The 9-point scale has been updated since the Code was last drafted (which currently includes the 5-point scale). The 9-point scale is validated, considered easy to use (German et al., 2006), and useful in assessing body condition fat (Bjornvad et al., 2011), survival and lifespan (Teng et al., 2018b), and health conditions (Teng et al., 2018a).

Body condition scoring should be performed using both visual and hands-on assessments. Body condition of cats cannot be assessed by simple visual observation. The extent of fat deposits can only be accurately assessed by feeling the tissues over the cat's ribs, backbone, pelvis, and abdomen (Michel & Scherk, 2012).

Some, but not all, cats will regulate their food intake to meet their energy needs (Michel & Scherk, 2012). For those cats with a body condition score of 7 or above indicative of being too heavy, a calorie-restricted diet should be considered (Teng et al., 2018a).

The energy requirements for growth reduce as a kitten ages, but during the period of rapid growth (its first three months) a kitten will have 1.5 - 2.5 times the energy needs of a normally active adult cat (Fahey et al., 2008; Perez-Camargo, 2010; Zoran, 2002). Therefore, kitten diets and young cat diets should be formulated to help the kitten maintain growth whilst not gaining too much weight potentially a risk factor for adult obesity (Salt et al., 2022; Serisier et al., 2013; Wichert et al., 2007).

A lactating queen will have two to three times the energy needs of a normally active adult cat (Lawler & Bebiak, 1986; Wichert et al., 2009, 2012).

3.4 Water: Minimum Standard No. 8 – Water

Water is an essential daily requirement for the proper functioning of the whole body (Gross et al., 2010; Zoran, 2002). While all cats must be provided with access to water daily, requirements will be modified by the water content of the food provided (Zoran, 2002). Water intake can be influenced depending on whether the cat consumes dry or wet food. Cats on a dry food diet drink more water (Buckley, Hawthorne, et al., 2011; Sparkes et al., 2015).

A lactating queen requires increased amounts of water to maintain a steady milk supply and therefore, needs to always have access to clean, fresh water whilst she is feeding kittens (Cline, 2012).

Cats who do not drink adequate amounts of water each day may be more susceptible to developing feline lower urinary tract disease (FLUTD) or inflammation of the bladder and urethra (Defauw et al., 2011;



Grant, 2010; Gunn-Moore, 2003). This may progress to urethral blockage in male cats, which will rapidly lead to death if not treated (Defauw et al., 2011; Gerber et al., 2005; Gunn-Moore, 2003). Other factors associated with FLUTD include obesity, stress, and lack of exercise (Defauw et al., 2011; Grant, 2010; Gunn-Moore, 2003).

Dehydration can become a serious problem for cats (especially kittens) when diarrhoea or other conditions occur that cause excessive fluid loss from the body (Veronesi & Fusi, 2022). Equally, if an increase in thirst occurs, this may indicate that kidney damage or a disease such as diabetes has developed, in which case veterinary attention should be sought (Sparkes et al., 2015, 2016).

PART 4: Containment and Housing



Minimum Standard No. 9 – Containment and Housing (other than for transport or under veterinary care)

Primary enclosure size is important for a cat's welfare. In larger enclosures, cats are likely to have more choices and additional enrichment (ASV, 2022; Taylor, St Denis, et al., 2022). Larger spaces can facilitate safer socialising with other cats of people, and reduce stress, and reduce risk of respiratory disease (Kessler & Turner, 1998; Wagner et al., 2018c).

For cats that are kept in cages, multi-compartment enclosures are recommended for housing cats in cages because it provides a cat with more choice and control in their environment (ASV, 2022). Multi-compartment enclosures provide cats separation of toileting areas from food, water, and resting areas (ASV, 2022). Cats can be moved between compartments whilst cleaning, which can make cleaning easier and safer for staff, reduces stress on the cat, and helps minimise the spread of disease (ASV, 2022).

Cats can be kept in restricted outdoor environments and maintain good welfare (de Assis & Mills, 2021). However, cats confined long-term in an unsuitable environment with minimal provision for adequate exercise are at risk of suffering from ill health, depression, and behaviour problems (see Behaviour section below for more information) (Amat et al., 2009, 2016; Ellis et al., 2013).

Cats kept in barren or less enriched housing are at higher risk of stress and fearfulness (Gourkow & Fraser, 2006; Rehnberg et al., 2015). Cats are also at welfare risk if they cannot engage in behaviours that promote their physical health such as exercising including stretching, and those that promote their mental health, such as exploration, scratching, hiding, climbing, perching, and having choices in, and control over, their environment (Herron & Buffington, 2010; Rochlitz, 2005; Stella & Croney, 2019; Van Der Leij et al., 2019; Wagner et al., 2018a, 2018b).

Providing places for cats to hide reduces fear, anxiety, and stress (Ellis et al., 2021; Ellis et al., 2017b; Foreman-Worsley & Farnworth, 2019; Van Der Leij et al., 2019; Vinke et al., 2014). Hiding places also provide cats with the choice to be seen or not seen and can help them feel safe (ASV, 2022). Providing items such as cardboard boxes, pipes and tunnels, or untreated wicker baskets can help them to feel more comfortable in their environment (Ellis et al., 2021).



Providing cats the opportunity to climb and perch can reduce stress in novel environments (Rehnberg et al., 2015). Cats prefer spending time on surfaces and high structures compared to the floor (Amat et al., 2016; Stella & Croney, 2019; Vinke et al., 2014).

Scratching is a normal behaviour for cats (Bradshaw, 2018; Cisneros et al., 2022). Scratching is important for maintain claw health and is an important communication behaviour in cats (Cisneros et al., 2022; DePorter & Elzerman, 2019). Cats need opportunities to scratch in their homes (Cisneros et al., 2022; Zhang & McGlone, 2020) even if they are kept in cages (ASV, 2022).

Breeding studs kept alone or in caged housing are at risk of poor welfare when their physical and social needs are not met, or they are not provided opportunities to exercise or engage in behaviour that supports their physical, mental and emotional needs (European Union Platform on Animal Welfare: Welfare in Pet Trade [AW Platform], 2020; Goericke-Pesch & Packeiser, 2022; Rioja-Lang et al., 2019).

Multi-cat settings may be stressful for individual cats; therefore, considerations of their prior socialisation should be factored into decisions to house cats together (Finka et al., 2014; Foreman-Worsley & Farnworth, 2019; Wagner et al., 2018a). Cats living in multi-cat settings will benefit from additional provisions to meet their physical, health, behavioural, mental, and emotional needs (Ellis et al., 2013; Foreman-Worsley & Farnworth, 2019; Ramos et al., 2013). The need for personal space and furnishings that enable climbing, perching, and hiding is recommended for communal housing (Ellis et al., 2013; Gourkow & Fraser, 2006).

Cages should be facing away from each other at a minimum of 1.2m apart to minimise the spread of disease (ASV, 2022; Gaskell & Wardley, 1977; Povey & Johnson, 1970; Wardley et al., 1977). Cages should be constructed of solid, non-absorbable materials and be secure, and allow for adequate ventilation and heating (ASV, 2022; Wagner et al., 2018b, 2018a).

Cats need a sleeping and eating area that is separate from their toileting area (Ellis et al., 2013; Wagner et al., 2018a, 2018b).

Housing for queens with unweaned litters should be in a quiet location to help ensure the queen does not become stressed reduces risk of disease transmission and cannibalism (Cline, 2012; Goericke-Pesch, 2010; Holst, 2022; Root Kustritz, 2005).

Cat will seek out warm places, yet household appliances (such as heaters, clothes dryers, hot water cupboards, and washing machines), warm car engines or warm tarmac, and roof cavities can result in cats experiencing serious injury or death (Cudney et al., 2021).

Exercise is important for the physical and mental health of cats, particularly if they are usually kept confined with limited space (Arena et al., 2021; Ellis et al., 2013; Rioja-Lang et al., 2019; Sonntag & Overall, 2014). Exercise requirements vary with age, breed, and individual circumstances. Older cats may exercise less relative to younger cats, but physical activity will remain important for both health and mental stimulation (Ellis et al., 2013; Rodan et al., 2022; Vogt et al., 2010).

Cats must have access to adequate shelter that provides warmth and cooling as needed, is free from draughts, and excessive temperature fluctuations, and has bedding to meet their physical, health, behavioural, mental, and emotional needs (ASV, 2022; Rochlitz, 2005; Wagner et al., 2018a, 2018b).

Cats benefit from access to natural light for important behaviours such as resting and sleeping in the sunlight (ASV, 2022; Wagner et al., 2018a). Cats should be exposed to a balance of light and dark conditions to maintain circadian rhythms (ASV, 2022; Wagner et al., 2018a). The cat's sleeping area should contain appropriate bedding for sleeping and warmth and be sectioned off to provide a darkened environment (ASV, 2022; Wagner et al., 2018a).



To ensure comfort for cats kept in indoor environments, temperatures should be maintained between 18-26.6 degree Celsius and humidity between 30-70 % (ASV, 2022). A cat's body will start responding to warming ambient temperatures above 30° C (Adams et al., 1970; Fadic et al., 1991). Cats that are brachycephalic, very old or young, sick, obese, pregnant, or have other medical problems are more susceptible to heat stress in warmer temperatures (Hall et al., 2022; Johnson et al., 2006).

Early signs that a cat is attempting to cool down from warming temperatures include reluctance to move/ lethargic; drooling/salivating; increased grooming/ licking fur; fast, shallow breathing; and open mouth breathing/panting (starting above 40C) (Baker, 1972; Hall et al., 2022 . Cats showing these signs should have access to water, and should be placed in a cool, shaded area (Drobatz & Costello, 2010; Johnson et al., 2006).

Heat stroke is a medical emergency and requires veterinary care (Johnson et al., 2006). Cats showing signs of heat stroke include appearance of confusion; uncoordinated/wobbly on their feet; bright red tongue or dark gums; tremors, seizures; and diarrhoea/vomiting (Cudney et al., 2021; Johnson et al., 2006).

PART 5: Hygiene and Sanitation



Minimum Standard No. 10 – Hygiene and Sanitation

Where multiple cats are confined together, sanitation plans, including cleanliness and disinfection are needed to prevent the spread of infectious diseases (Cline, 2012; ASV, 2022; Koret Shelter Medicine Program, 2018). A sanitation plan will need to include a cleaning and disinfection schedule (including the proper types of products), appropriate for the setting (e.g., multi-cat settings, home environment) and use of the area (e.g., litter trays in the home, examination areas in a shelter) (Cline, 2012; ASV, 2022; Koret Shelter Medicine Program, 2018).

Soap or detergent is required to remove organic matter that adheres to surfaces; heavily used areas should then be disinfected and allowed to become thoroughly dry before cats re-enter (ASV, 2022; Koret Shelter Medicine Program, 2018).

Cats are sensitive to many chemicals, and great care needs to be exercised in achieving disinfection without introducing toxic substances or noxious odours into the cat's environment (ASV, 2022; Koret Shelter Medicine Program, 2018). It is also essential that drying after cleaning and disinfection is part of the sanitation process to ensure reduction in pathogens (Koret Shelter Medicine Program, 2018).

Food and water bowls should be washed daily with hot water and soap or detergent. Food and water bowls should be disinfected weekly; and daily for cats in a shelter, rescue, veterinary, temporary housing, or research, testing, or teaching locations (Cline, 2012). Care should be taken to clean around food bowls daily to remove small pieces of discarded food that may harbour saliva and infectious agents (ASV, 2022).



Litter trays should be cleaned daily to remove faeces or urine-soaked litter (Cline, 2012; Neilson, 2004; Pryor et al., 2001). Some cats may require more frequent cleaning to ensure they use their litter tray (Neilson, 2004). Litter should be completely changed weekly, or more frequently if needed, and in multi cat settings, be changed over daily (Cline, 2012). On a weekly basis in homes, and daily in shelter, rescue, veterinary, temporary housing, or research, testing, or teaching locations, litter trays should be washed in hot, soapy water; disinfected for the required contact time according to the product used (typically ten minutes is adequate); and thoroughly rinsed and dried, particularly where cross-infection is an issue (ASV, 2022; Koret Shelter Medicine Program, 2018).

All hard surfaces with which caged cats come into contact should be scrubbed with hot water and soap or detergent and disinfected in between changes of occupants or as needed if soiled (ASV, 2022; Koret Shelter Medicine Program, 2018).

Bedding should be removed and washed weekly and disinfected between different cats in shelter, rescue, veterinary, temporary housing, or research, testing, or teaching locations, (Cline, 2012). Soft blankets and beds than can be laundered are encouraged (Koret Shelter Medicine Program, 2018). Specific laundering protocols should be used for certain pathogens, otherwise, blankets and bedding should be discarded (ASV, 2022). Furniture with fabric and carpets should be avoided or kept to a minimum in shelter, rescue, veterinary, temporary housing, or research, testing, or teaching locations, as these are difficult to keep clean, and may harbour infectious agents (ASV, 2022).

The environment should be well-ventilated to assist in preventing dampness and the build-up of noxious odours and to minimise the irritation of a cat's respiratory system (ASV, 2022; Wagner et al., 2018a). The air exchange rate should be 10-20 complete exchanges per hour (ASV, 2022). Proper ventilation helps ensure dust, moisture, gasses such as ammonia and carbon dioxide are kept at minimal levels whilst fresh, oxygenated air is maintained at suitable levels throughout the facility (ASV, 2022). Ventilation should be adjusted seasonally as needed (ASV, 2022).

A cat's housing should not smell strongly of ammonia (ASV, 2022). High ammonia concentrations for prolonged periods can cause eye and respiratory irritation in cats, resulting in discomfort and respiratory disease (Dodd & Gross, 1980).

Humans can detect ammonia gas at levels starting at 5ppm with irritation to eyes, nose, and throat beginning at 30ppm exposure for 10 min (National Research Council, 2008). The average airborne concentration permitted over an eight-hour working day is 25ppm (Worksafe, n.d.). Cats are sensitive to ammonia at very low levels (3.5-8.7ppm; Boyd et al., 1944 and some have recommended shelters should aim for ammonia levels to be below 2ppm (Newbury et al., 2010).



PART 6:

Breeding cats



Part 6.1 Breeding: Minimum Standard No. 11 – Breeding

Breeder registration is considered important for protecting the welfare of cats involved in breeding by driving adherence with animal welfare standards and improving record keeping of inheritable welfare problems (AW Platform, 2020; Fossati & Ruffo, 2021).

Responsible cat breeding includes considerations for the welfare of parents and offspring, avoiding unnecessary pain or suffering from inherited problems, avoiding extreme body types and impairments in organ function, reproduction, locomotion, and behaviour (Steiger, 2007). The availability of homes is part of the breeder's obligations to ensure the welfare of all kittens purposely bred (AW Platform, 2020).

For breeders of cats, consideration should be given to the frequency at which an individual is used for breeding and the age at which breeding commences and ends. Age of maturity varies with the breed and the individual cat. A cat should be fully grown before she is bred, and she should be at least twelve to fifteen months old before being bred (AW Platform, 2020; Goericke-Pesch & Packeiser, 2022; Johnson, 2022). There are significantly higher rates of kitten mortality born to queens less than a year old whilst risk of still birth in kittens increases after the queen is older than five years of age (Ström Holst & Frössling, 2009).

A queen should not be bred to have more than three litters over two years, and she should have a period of at least 26 weeks of rest between litters (Goericke-Pesch & Packeiser, 2022; Johnson, 2022). Breeding a queen who has had more than three litters should be carefully considered (Johnson, 2022). The recommended age of retirement for a queen is six years of age (AW Platform, 2020; Goericke-Pesch & Packeiser, 2022; Johnson, 2022).

A queen should be healthy and up to date on vaccinations, parasite treatment, and other preventive treatments prior to being bred (AW Platform, 2020; Goericke-Pesch & Packeiser, 2022; Johnson, 2022). A queen should not be bred if she is overweight due to the increased risk of dystocia, stillbirths, and caesarean sections (Cline, 2012; Lawler & Monti, 1984).

Hereditary disease in cats is considered a health and welfare problem. Pedigree cats have high levels of inbreeding (Goericke-Pesch & Packeiser, 2022; Pistorius & Blokker, 2021) and are at increased risk of inheriting undesirable traits that can negatively impact welfare (Goericke-Pesch & Packeiser, 2022; Lyons, 2015).

The list below includes many but is not an exhaustive list of welfare problems associated with certain breeds (reviewed by Lyons, 2015; Steiger, 2007):

- Skin problems include problems with thermoregulation (long-haired, Rex-types, hairless), whiskers have structural problems or are lacking (Rex-types, hairless), occurrence of eczemas (long-haired), thickening and folds (hairless) and increased risk of skin cancer and deafness (white-haired);
- Skeleton problems include joint issues due to large body size (Maine coon, Norwegian Forest Cat), jaw and tooth abnormalities, respiratory challenges due to nasal abnormalities, eyelid problems,



challenges with feeding neonates, and dystocia associated with brachycephaly and short head (Persian, Exotic short-haired, Burmese), and locomotion, movement, and neurological problems, challenges with urinating and defaecating, and pelvic pain associated with short tail and taillessness (Manx, Cymric, Bobtails), dwarfism, reduced growth or limb bones, impaired locomotion, and spine problems due to short legs (Munchkin);

- Sensory problems include pain from bones and cartilage defects, spine and tail defects, and impaired social communication from folded ears (Scottish Fold, Poodle Cat); and cornea defects and pain (Siamese, Persian, Colourpoint).

Breed type is a risk factor for health and welfare problems such as hypertrophic cardiomyopathy in Maine Coon cats (Fries et al., 2008; Gundler et al., 2008), diabetes in Burmese cats (Samaha et al., 2020), and polycystic kidney disease in Persian cats (Barrs et al., 2001). Cat breed is also a risk factor for dystocia (Holst et al., 2017).

Cat owners may not have good understanding of the potential welfare impacts associated with certain breeds of cats (Plitman et al., 2019). At least one study has shown that owners of brachycephalic breeds would not recommend this type of cat due to health issues (Plitman et al., 2019). Selection of less extreme anatomy, genetic testing and counselling is recommended to reduce the welfare harms of hereditary problems (World Small Animal Veterinary Association [WSAVA], n.d.). Genetic testing can identify inheritable disease, undesired phenotypic traits, and mutations (Lyons, 2012, 2015).

6.2 Need for Desexing: Minimum Standard No. 12 – Need for Desexing

Unplanned or indiscriminate breeding of companion cats can cause health and welfare issues associated with insufficient care and inappropriate disposal of unwanted kittens.

Desexing can reduce the risk of disease including:

- 16.3% of all tumours are mammary gland tumors, making this the second most common tumour (Vascellari et al., 2009). 8.2% of tumours in a Swiss feline cancer registry (1965-2008) were mammary gland tumours (Graf et al., 2016). Previously reports showed 2.5% incidence of mammary gland tumours in female cats and make up 12% of all tumours making this the third most common tumour (Dorn et al., 1968; Verstegen & Onclin, 2003).
- >90% of mammary gland tumours in cats are malignant (Dorn et al., 1968; Hampe & Misdorp, 1974; Hayes et al., 1981). A more recent study with a Swiss feline cancer registry found that 83% of mammary tumours were malignant (Graf et al., 2016).
- Japanese and Siamese breeds are at increased risk of mammary tumours (Graf et al., 2016; Verstegen & Onclin, 2003).
- Desexing prior to one year of age protects against mammary carcinoma: 91% risk of reduction if desexed before six months, 86% reduction if prior to one year (Overley et al., 2005).
- Pyometra risk increase significantly with age for female cats (Potter et al., 1991).

Desexed male cats live a mean of 62% longer than undesexed male cats, and desexed female cats live a mean of 39 longer than undesexed female cats (Banfield Pet Hospital, 2013).



Desexed cats are less likely to escape or roam:

- Intact male cats are at higher risk of traffic accidents, injuries, bite wounds, and disease transmission compared to desexed males (Finkler et al., 2011; Gunther et al., 2015; 2018).
- Roaming (and fighting and spraying) reduced or eliminated in 80-90% of cats (Hart & Cooper, 1984)
- Desexing reduces activity related to territorial behaviour. Authors note cats are less active, which they do not specify includes roaming (Cafazzo et al., 2019).

Unplanned litter contributes to surrenders to shelters. Kittens under six months of age made up the largest proportion of owner-surrender cats to a shelter in Australia (Marston & Bennett, 2009). Unplanned kittens that enter the shelter system can often be in a poor state of welfare, including disease and upper respiratory infections (Marston & Bennett, 2009). For a period of two years (2012-2014), monitoring of free-roaming kittens in Israel indicated this group had the highest prevalence of emaciation and thinness, lowest body condition scores, and higher prevalence of severe injury or disability compared to adults (Gunther et al., 2018).

The traditional age for desexing a cat has been reported as four to six months of age (Farnworth et al., 2013; Orr & Jones, 2019). However, a kitten may reach puberty as early as 14 weeks of age (3.5 months) (Farnworth et al., 2013; Stubbs & Bloomberg, 1995). Desexing can safely be carried out as early as six weeks of age (Howe, 2015, 1997; Root Kustritz, 1999; Stubbs & Bloomberg, 1995; Stubbs et al., 1996). Therefore, desexing at twelve weeks (three months) will ensure a kitten does not have a litter before puberty. Early desexing does not adversely affect the physiological or behavioural development in cats; desexing at a younger age is a faster procedure and with a quicker recovery time for the kitten (Aronsohn & Faggella, 1993; Bushby & Griffin, 2011; Howe, 1997; Porters et al., 2015) and it reduces the likelihood of some cat behaviours such as spraying, straying, and vocalising (Spain et al., 2004).

6.3 Pregnancy and Birthing: Minimum Standard No. 13 – Pregnancy and Birthing

Queens may become restless and reclusive and seek out places that are quiet and private prior to giving birth (Cline, 2012). Queens should be provided access to a birthing area one to two weeks prior to giving birth so she can become familiar with the area (Cline, 2012; AW Platform, 2020; Johnson, 2022). A nesting box should be provided for the queen before birthing, and the bedding material should be replaced after the birth has taken place (Cline, 2012; Johnson, 2022). It should be ensured that the chosen place is warm, dry, and safe (Cline, 2012; Goericke-Pesch & Packeiser, 2022; Johnson, 2022).

Queens should be monitored to ensure they are not having difficulty birthing (AW Platform, 2020; Holst, 2022). The queen and kitten should be watched for signs of dystocia. Dystocia is a medical emergency and signs include prolonged contractions and straining that does not progress, green discharge from the vagina, panting, crying, or queen appears exhausted, restless, or has stopped trying to give birth (Holst, 2022; Von Heimendahl & Cariou, 2009).

Queens can be stressed after giving birth, therefore, unless there is reason to believe the kittens need intervention, then providing the queen a quiet and safe space is important to reduce stress which can lead to poor milk production and aggression towards the kittens (Cline, 2012). The queen must be provided the choice to spend time away from her kittens, especially to urinate and defaecate, and she will begin spending more time away once weaning begins (Root Kustritz, 2005).



Where birthing is occurring within the home, kittens should be restricted, for their safety and to minimise disease transmission, by keeping them within a pen enclosure for the first several weeks of their life (Cline, 2012; Goericke-Pesch & Packeiser, 2022). The birthing area or queening box will need to have ongoing provision of fresh bedding to maintain hygiene (Cline, 2012; AW Platform, 2020; Goericke-Pesch, 2010).

Studs should be excluded from access to the kittens to prevent the kittens from being harmed or killed, reduce spread of disease, and reduce maternal stress (Cline, 2012; Holst, 2022).

6.4 Lactation and Weaning: Minimum Standard No. 14 – Lactation and Weaning

Kittens will remain dependent on their mother for feeding, toileting, and keeping warm for the first four weeks of life (Veronesi & Fusi, 2022; Zambelli, 2012). A kitten's eyes will normally start opening by seven to twelve days after birth and their ears will normally be open by fourteen days (Hammerle et al., 2015; Veronesi & Fusi, 2022; Zambelli, 2012). Kittens will start purring from two days of age (Hammerle et al., 2015).

Kittens will begin weaning around three to four weeks of age and can be introduced to solid food around this time (Cline, 2012; Lawler, 2008; Martin, 1986; Sturgess & Hurley, 2007; Veronesi & Fusi, 2022; Zambelli, 2012). The queen will usually begin restricting access to herself at four to five weeks and weaning is usually completed by six to eight weeks (i.e., the kitten is able to feed entirely on solid food) (Martin, 1986; Root Kustritz, 2005).

Premature maternal separation is considered to occur during the sensitive socialisation period when the kitten is between two to seven weeks of age (Hammerle et al., 2015; Karsh & Turner, 1988). Kittens will vocalise when separated from their mother during the first three weeks of age, with orphaned kittens showing increased vocalisation and activity (Lowell et al., 2020; Martínez-Byer et al., 2023). To ensure adequate socialisation to other cats, kittens ideally should not be removed from their mothers before ten weeks of age (Veronesi & Fusi, 2022).

Weaning time should balance the welfare needs of both the queen and the kittens (Lawler, 2008; Veronesi & Fusi, 2022). Weaning includes a transition from the milk to solid food, and then separation from the mother (Ahola et al., 2017; Lawler, 2008). Early weaning is a stressful time for the kittens (Ahola et al., 2017; Martin, 1986). Kittens need to have been weaned from milk for at least two weeks before they go to their new owner to help minimise stressors and avoid premature separation from the mother during their sensitive socialisation period (Lowell et al., 2020). Diets should be formulated to optimise nutrition for weaning kittens to reduce stressors during this time (Cline, 2012; Zambelli, 2012).

6.5 Removal of Kittens from the Queen and Supply of Kittens: Minimum Standard No. 15 – Removal of Kittens from the Queen and Supply of Kittens and Cats

The essential age for socialisation of kittens is from two to seven weeks of age, and handling and exposure to different sounds, items, surfaces, and smells during this period is vital for good sociability towards humans in the adult cat (Bateson, 2014; Karsh, 1984; Karsh and Turner, 1988; Lowe and Bradshaw, 2001).

Socialisation plans should include beneficial exposure to experiences and management of experiences that may lead to kittens experiencing fear. Early experiences with fear can lead to health and behavioural problems (Casey & Bradshaw, 2008; Griffin, 1989; Latham & Mason, 2008; Levine, 2008; Mikkola et al., 2022). Socialisation, including sufficient handling of young kittens from the age of three weeks will help



them to socialise to people and later adjust to a new home (Casey & Bradshaw, 2008; Mikkola et al., 2022). Separating kittens from their mother can be stressful for the kitten (Lowell et al., 2020; Martínez-Byer et al., 2023). Owners of kittens to be rehomed need to be sure that the kittens are capable of independent life before moving them to new homes (AW Platform, 2020). A vaccination/worming programme should be implemented before rehoming (Day et al., 2016).

PART 7: Health



7.1 Ill Health and Injury: Minimum Standard No. 16 – Ill Health, Injury, and Distress

Health and welfare are intricately linked. Owners and persons in charge have a responsibility to maintain their cat in good health and to treat injury and disease when it occurs. The health and welfare of the cat should be checked regularly, including observing whether the cat is eating, cleaning, and behaving normally (Rodan & Sparkes, 2012).

Owners or persons in charge of cats have obligations under the Act for ensuring the cats health is protected including:

Ensuring they are meeting the physical, health, and behavioural needs of their animals ([Part 1, section 10](#)).

Ensuring an animal that is ill or injured receives treatment that alleviates any unreasonable or unnecessary pain or distress being suffered by the animal ([Part 1, section 11](#)).

Pain, physical or mental distress, and deteriorating health are recognised as a serious welfare harm to animals and must be treated as needed (Drobatz & Costello, 2010; Gruen et al., 2022; Monteiro et al., 2022; Steagall et al., 2022).

Cats that are experiencing acute or chronic pain show a range of behaviour changes including postures and activity, facial expressions, interactions with a person or environment, and activity levels (Steagall et al., 2022). There are several tools available for the assessment of acute and chronic pain including physical examination, clinical observation, measurement of physiological variables, wound palpation, observations of photos or videos, and active monitoring, in addition to metrology instruments such as pain scales (Gruen et al., 2022; Monteiro et al., 2022; Steagall et al., 2022).

Validated tools to assess acute and chronic include:

[UNESP-Botucatu Multidimensional Composite Pain Scale](#) (acute pain)

[Feline Grimace Scale](#) (acute pain)

[Musculoskeletal Pain Screening Checklist \(MiPSC\)](#) (chronic pain)

[Feline Muskuloskeletal Pain Index \(FMPI\)](#) (chronic pain)



Veterinary philosophy of managing pain has shifted towards proactive pain management (Gruen et al., 2022; Monteiro et al., 2022; Steagall et al., 2022). This indicates the need for progressive standards that are explicit in conveying expectations of owners and persons in charge of cats the requirement to address pain sooner rather than later. Owner recognition of pain in cats can be difficult due to the cryptic nature of cats showing signs of pain, and a lack of knowledge in assessing pain (Monteiro et al., 2022; Steagall et al., 2022), therefore, minimum standards specifying signs of pain that require veterinary attention are needed. Signs of pain in cats include (Merola & Mills, 2016):

- Lameness
- Difficulty jumping
- Abnormal gait
- Reluctance to move
- Reaction to palpation
- Withdrawn or hiding behaviour
- Absence of grooming
- Playing less
- Appetite decrease
- Overall activity decrease
- Less rubbing toward people
- General mood
- Temperament
- Hunched-up posture
- Shifting of weight
- Licking a particular body region
- Lower head posture
- Blepharospasm (eyelid contractions)
- Change in form of feeding behaviour
- Avoiding bright areas
- Growling
- Groaning
- Eyes closed
- Straining to urinate
- Tail flicking

Cats are at risk of serious injuries from vehicles, attacks from dogs, fighting with other cats, and interacting with traps (Bruce et al., 2019; Conroy et al., 2019; Drobotz & Costello, 2010; Loyd et al., 2013; Tan et al., 2020). Cats are also susceptible to fan belt injuries from cars or machinery and high-rise syndrome resulting in falls from a steep height (Drobotz & Costello, 2010).

Uncontrolled, profuse bleeding can be a result of serious injury or disease and requires immediate veterinary care to prevent further deterioration of health and death (Drobotz & Costello, 2010).

Abscesses are a common health problem and a frequent result of wounds to the neck, shoulders, and tail base caused by fighting between cats that become infected with bacteria (Mueller, 2020; Six et al., 2009). Abscesses are very painful (Day et al., 2016) and may also result in the spread of potentially life-threatening infection through the cat's body (Mueller, 2020). Abscesses should always be examined by



a veterinarian or allied veterinary professional to determine the type of bacteria which is then used to inform the appropriate treatment choice (Mueller, 2020; Six et al., 2009). In addition to pain management and antibiotics, abscesses may require surgical draining and cleaning (Mueller, 2020), therefore, veterinary assistance is needed.

Difficulty breathing can be a result of several conditions and is considered a serious welfare harm (Beausoleil & Mellor, 2015; Drobatz & Costello, 2010; Sumner & Rozanski, 2013).

Repeated straining over a continuous period of 30 minutes, as if to pass urine or faeces is considered a serious health problem (Defauw et al., 2011; Jergens, 2012; Michel, 2001). A cat that has urine that is cloudy, sludgy, or contains blood is considered a serious health condition (Defauw et al., 2011).

Cats that have lost weight due to inappetence must receive veterinary care as this can be a sign of underlying health problems and will also lead to further deterioration from lack of nutrients (Taylor et al., 2022).

Cancer caused from ultraviolet radiation from the sun can cause the skin on the edge of a cat's ears or nose to ulcerate and slowly erode (Biller et al., 2016; Dorn et al., 1971; Lana et al., 1997; Murphy, 2013). Skin cancers may cause considerable pain and distress (Lana et al., 1997). If left too long this form of cancer can become untreatable, so early detection and treatment is advised (Murphy, 2013). Cats at high risk of squamous cell carcinoma benefit from preventive measures such as keeping them out of sunlight at the height of the day, using sunblock if allowed outdoors, or using ultraviolet films on windows (Murphy, 2013).

A cat caught in a live trap will likely be fearful and stressed and may be aggressive (Slater et al., 2010). Given most companion cats in New Zealand are allowed outdoors with little restrictions (Gates et al., 2019; Hall et al., 2016), it is likely that a trapped cat in areas of human habitation is a companion cat. Therefore, making a reasonable effort to identify the owner of a trapped cat should be required of any trapper.

7.2 Prevention and Management of Infectious Diseases: Minimum Standard

No. 17 – Prevention and Management of Infectious Diseases

Vaccination is an important means of controlling infectious diseases, such as feline panleukopaemia (FPV), feline rhinotracheitis (FVR), and feline calicivirus (FCV), feline leukaemia (FeLV), feline immunodeficiency virus (FIV), and chlamydia (Day et al., 2016; Stone et al., 2020). Veterinary advice needs to be sought regarding the most appropriate vaccination programme, as requirements vary depending on the disease, the age of the cat and the environment (Day et al., 2016; Stone et al., 2020). For example, animal shelters are considered a high-risk environment due to being a high stress environment and housing a dynamic population of animals of unknown vaccination status and an earlier and more frequent vaccination is recommended (Day et al., 2016).

Cats showing signs of eye infections, rhinitis (sneezing, runny nose, itching, congestion), and cough must receive veterinary care for evaluation and treatment to reduce the risk of deteriorating health, spread to other animals, and minimise zoonotic disease transmission (Drobatz & Costello, 2010; Lappin et al., 2019; Litster, 2021).

Areas that are high-risk situations such as animal shelters, boarding catteries, cat shows, multi-cat households, research, testing, and teaching facilities, and neighbourhoods with a dense cat population and/or a stray cat population should have programmes and controls in place to minimise and manage disease outbreaks (Day et al., 2016; ASV, 2022; Hosie et al., 2015; Stone et al., 2020; Stull et al., 2018).



Where disease is present, cleaning and disinfection protocols for housing, bedding, and equipment that has been exposed to infected cats must be followed to reduce pathogens (ASV, 2022; Karsten, 2021; Stull et al., 2018).

Fighting between cats should be minimised to reduce the spread of disease through biting (Hosie et al., 2009; Little et al., 2020).

7.3 Prevention and Management of Parasitic Diseases: Minimum Standard No. 18 – Prevention and Management of Parasitic Diseases

Prevention and treatment are important means of preventing discomfort and serious disease from external and internal parasites in cats (Companion Animal Parasite Council [CAPC, 2022]; Lappin et al., 2019; Rodan & Sparkes, 2012; Stone et al., 2020).

External parasites that live on the skin of a cat include fleas and mites (CAPC, 2012; 2007). Their presence may be indicated by excessive grooming, scratching, rubbing, fur loss, scabs, or scale (CAPC, 2012). Fleas or flea dirt (black coils that turn red when moistened with water) may also be seen in the coat (CAPC, 2017).

A cat can develop hypersensitivity to external parasites and show extreme skin irritation, even when parasite numbers are low (Carlotti & Jacobs, 2000).

Fleas are common and their population can increase rapidly in warm and humid environmental conditions (Rust, 2017). Most of a flea's life cycle is spent, not on the cat, but in its environment, therefore carpets and bedding should be cleaned and/or treated (Carlotti & Jacobs, 2000). Routine cleaning such as vacuuming kills fleas, their eggs, or larvae, (Carlotti & Jacobs, 2000; Hink & Needham, 2007). Where there is infestation, advice on appropriate treatment however, both environment and animals should be treated (Carlotti & Jacobs, 2000; Hnilica & Patterson, 2011). Effective treatment of fleas requires that all animals in the household, including dogs, are treated at the same time (Carlotti & Jacobs, 2000; Hnilica & Patterson, 2011).

The signs of ear mites include hair loss, dandruff and flaky skin, redness, and excessive scratching of the ears (Hnilica & Patterson, 2011; Yang & Huang, 2016). Treatment can be difficult particularly in advanced cases, and it is important to seek veterinary help at an early stage of the disease (Yang & Huang, 2016).

Internal parasites, such as intestinal worms or lungworms, are common and require regular monitoring and treatment (Rodan & Sparkes, 2012). These parasites are particularly prevalent in young cats or kittens (Rodan & Sparkes, 2012). Loss of body weight plus a tendency to a prominent belly, dry coat, and regular licking at the anus are signs that may indicate the presence of roundworms (Overgaauw, 1997). Since a queen can transmit roundworms via her milk, all kittens should be regularly wormed with an effective roundworm treatment (Rodan & Sparkes, 2012). If there are indications that a cat is infested with internal parasites, this can be confirmed by faecal examination and then treated with an anthelmintic authorised by a veterinarian (Rodan & Sparkes, 2012).

Lungworms can cause serious ill health in affected kittens. A wet, unproductive cough, which may be mistaken for an unproductive vomiting bout, can indicate the presence of lungworms in kittens (Brianti et al., 2014; Quimby et al., 2021).



Cats can be susceptible to fly strike, especially young kittens needing assistance with toileting, senior, or disabled cats that struggle with grooming or are incontinent (Pezzi et al., 2019). Fly strike occurs when flies lay their eggs on skin, especially if conditions are unsanitary or cats are unhealthy (e.g., with urine scald or matted coats that contain faeces) (Mueller, 2020; Pezzi et al., 2019).

Preventive health treatments such as deworming for round worms and hook worms or using flea and tick prevention can minimise zoonotic transmission to humans (Lappin et al., 2019). Testing for skin diseases to identify fungal disease such as ringworm can help minimise spread to humans (Lappin et al., 2019).

Diseases Transmissible to Humans (Zoonoses)

Some diseases (e.g., ringworm, toxoplasmosis, round worm, hook worms, disease from mites and fleas) can be transmissible between cats and other species, including humans (zoonotic diseases) (Dubey et al., 2009; Fakhri et al., 2018; Lappin et al., 2019). People who are pregnant or immunocompromised should avoid cleaning litterboxes (CAPC, 2014) or should wear gloves when cleaning up cat faeces and wash their hands thoroughly afterwards if there is concern of toxoplasmosis transmission (Lappin et al., 2019).

7.4 Care of Claws and Coat: Minimum Standard No. 19 – Care of Claws and Coat

Long-haired cats should be regularly groomed to remove excess fur (Cannas et al., 2020; McDonald et al., 2022; Rodan & Sparkes, 2012). A neglected coat can cause considerable distress to long-haired cats due to matting (McDonald et al., 2022). Hygiene around the perineum, anus and tail is particularly important in all cats to reduce soiling and the risk of flystrike (Pezzi et al., 2019).

Hair mats can harbour external parasites and dermatitis is likely to develop in the underlying skin (Bowman et al., 2021). Mats may be gently brushed out by the owner, but care should be taken in case the cat finds this stressful (Cannas et al., 2020). But when matting is severe, cat owners should seek expert assistance (Cannas et al., 2020; McDonald et al., 2022).

A cat's claws need attention if they have become overgrown. Such claws should be trimmed carefully, while avoiding damage to the quick which will result in pain and bleeding (Rodan & Sparkes, 2012). Veterinarians, veterinary nurses, or professional groomers can assist and advise on trimming claws (Rodan & Sparkes, 2012). It is important cats are provided access to scratching posts to help maintain claw health (Rodan & Sparkes, 2012).

7.5 Toxic and Harmful Substances: Minimum Standard No. 20 – Toxic and Harmful Substances

Cats can be poisoned by many substances including plants (indoor and outdoor), household and garden chemicals such as pest management toxins, lead paints or objects, and timbers treated with arsenic. Cats can also have adverse reactions to common topical products such as shampoos and grooming sprays, or medicines such as antibiotics, drinking water polluted with toxins such as sheep dip, horticultural sprays, anticoagulation poisons, or antifreeze (Cortinovis & Caloni, 2016; Fitzgerald et al., 2006; Grave & Boag, 2010; Knight & Kumar, 2003; Lizarraga & Parton, 2021).

Confirmed or suspected poisoning in cats requires immediate veterinary care (Drobatz & Costello, 2010; Grave & Boag, 2010).



7.6 Care of Older Cats: Minimum Standard No. 21 – Care of Older Cats

A cat that reaches a senior age (ten or eleven years and older) may require extra care and attention (Dhaliwal et al., 2023; Quimby et al., 2021; Ray et al., 2021; Vogt et al., 2010). Some diseases occurring in an older cat may be interpreted by the owner as part of the natural ageing process (Ray et al., 2021). For many owners, a cat's senior years are a significant part of their life together, and healthcare decisions will need to consider the emotional, spiritual, and physical aspects of the owner and cat relationship (Dhaliwal et al., 2023).

An older cat may benefit from specially formulated diets (Ray et al., 2021).

Kidney disease, oral disease, diabetes, hyperthyroidism, heart disease, cancer and arthritis are some of the serious diseases that can occur in an older cat (Ray et al., 2021). Weight loss, excessive drinking or urination, increased or decreased appetite, and increased or decreased activity may be seen with these conditions (Ray et al., 2021).

Floor coverings, extra litter boxes, more ground floor space (rather than multiple levels and ramps), better traction, and soft bedding will improve the comfort of an older cat (Ellis et al., 2013; Ray et al., 2021).

Older cats may sometimes show signs of cognitive dysfunction syndrome (Ray et al., 2021). Signs include confusion or disorientation, changes in sleep patterns, house soiling, changes in interactions with other animals or people in the home, change in diet, activity, and memory, aimless wandering or pacing, and increased anxiety and irritability (Ray et al., 2021). A management plan can be developed in consultation with a veterinarian to improve quality of life (Quimby et al., 2021; Ray et al., 2021).

PART 8: Behaviour, Enrichment, and Training



8.1 Behaviour: Minimum Standard No. 22 – Behaviour

Preventing behavioural problems and early intervention if problems occur is essential in supporting the owner-cat relationship (Carney et al., 2014; Ellis et al., 2013; Gazzano et al., 2015; Hammerle et al., 2015; Overall et al., 2005). Physical punishment of cats and kittens (e.g., as a means of toilet training) may result in the development of either excessive timidity or aggression in the cat (Bradshaw, 2018).

Cats will have individual differences in how social they are with other cats (Bradshaw, 2016; Crowell-Davis et al., 2004; Finka et al., 2014; Ramos et al., 2013). Cats that grow up together can remain compatible throughout their lives (Bradshaw, 2016). Several studies have found conflicting results when comparing cat behaviour and stress between single and multi-cat confined settings. These studies have limitations in terms of design and outcome measures leading to difficulty in interpretation, however recommendations for practice for cats in confined environments include single housing, minimising environment changes, and only group cats that know each other are housed in stable groups (Finka et al., 2014).



Problem behaviours are behaviours considered a problem by the owner and can include behaviours such as spraying, scratching, and aggression in response to environmental changes (Casey & Bradshaw, 2008).

Human directed cat aggression is considered a common problem (Amat & Manteca, 2019; Mikkola et al., 2022; Wassink-van der Schot et al., 2016). Risk factors for human-directed aggression include poor socialisation with humans (Mikkola et al., 2022), being a sole cat (Ahola et al., 2017; Amat et al., 2009; Mikkola et al., 2022), age and breed (Mikkola et al., 2022) early weaning (Ahola et al., 2017), and lack of outdoor access (Heidenberger, 1997). Aggression can be indicative of welfare concerns such as stress and fear (Amat & Manteca, 2019; Mikkola et al., 2022).

Human-directed aggression is also a common reason for owner surrender to shelters (Hawes et al., 2020; Zito et al., 2016). Owner compliance with treatment programmes is essential in addressing abnormal or problem behaviours in cats (Casey & Bradshaw, 2008).

To help ensure cats experience positive welfare, they must be provided opportunities to express normal behaviours such as hiding, climbing, scratching, and marking (see further discussion in the section on enrichment) (Amat et al., 2016). Owners or persons in charge who spend more time with their cat, including playing with them and grooming them, increase positive experiences for cats (Ellis et al., 2013; Oliveira et al., 2023; Rehnberg et al., 2015).

Promoting play behaviour can promote positive emotions (Boissy et al., 2007) and promote positive interactions between cats and people (Henning et al., 2023; Kogan & Grigg, 2021).

Normal cat behaviours such as the clawing of furniture and urine spraying can be seen as problematic (Bradshaw, 2018; Casey & Bradshaw, 2008; Cisneros et al., 2022). Perceived behavioural issues such as scratching furniture, soiling in the house, and excessive vocalisation are higher in confined cats (Sandøe et al., 2017; Schubnel & Arpaillange, 2008).

Cats can be territorial (Bradshaw, 2018; Bradshaw, 2016). Companion cats can adapt well to diurnal and nocturnal lifestyles based on human influence (Bradshaw, 2018; Piccione et al., 2013).

Behavioural disorders are often due to a cat feeling fearful or experiencing anxiety (Mikkola et al., 2022). Aggressive and/or irritable behaviour may also have a medical basis, be age-related or be due to inappropriate handling (Rodan, 2010; Rodan et al., 2011; Taylor, St Denis, et al., 2022). Inappropriate urination and defecation may also indicate a medical problem or may be associated with stress in a cat in a multi-cat household, neighbour or unknown cats entering a cat's territory, insufficient changing of the cat litter or difficulty of access to the outdoors (Carney et al., 2014; Ellis et al., 2017a; Heath, 2019; Neilson, 2004).

Where a behavioural problem occurs, it is important to look at all aspects of the cat and their living situation and advice should be obtained from a feline behaviour expert (Shore et al., 2008). Sometimes, medication or pheromones coupled with behavioural interventions may be used to help modify a behaviour (Amat et al., 2016; Denenberg & Dubé, 2018; Vitale, 2018).

Provision of litter type and litter box type should be based on cat preference and potential risks of behavioural and health risks including:

- Cats prefer sand-like, small grain litter (Borchelt, 1991; (Villeneuve-Beugnet & Beugnet, 2018). Cats prefer clay or silica substrate over plant-based litters (Villeneuve-Beugnet & Beugnet, 2018).



- There is conflicting evidence as to whether cats prefer scent-free litter (Horwitz, 1997) or do not have a preference (Neilson, 2011; Sung & Crowell-Davis, 2006).
- Cats prefer clumping litter (Borchelt, 1991; Neilson, 2001), and non-clumping litter is associated with an increased risk of cats being diagnosed with feline idiopathic cystitis compared to cats using clumping litter (Kim et al., 2018). Clumping litter is often recommended as best practices for preventing unwanted elimination (Carney et al., 2014; Heath, 2019; Quimby et al., 2021). However, anecdotal reports exist about the risks of intestinal blockages if cats or kittens ingest clumping litter. It has been suggested to avoid using clumping litter for cats with polyuria (Overall et al., 2005).
- Any change in litter should be gradual to allow a cat to adjust (Frayne et al., 2022).

Litter trays should be of adequate size (at least 1.5 length of a cat) to accommodate their entire body, allow a cat to dig and squat comfortably, and have enough litter to allow a cat to fully bury their faeces and urine (Carney et al., 2014; Gazzano et al., 2015; Guy et al., 2014; Villeneuve-Beugnet & Beugnet, 2018). Litter boxes should be accessible for a cat at any life-stage or physical ability (e.g., they have trouble climbing) (Quimby et al., 2021).

Cats should be provided different options for a litter tray as they may prefer an open top or enclosed tray (Beugnet & Beugnet, 2020; Grigg et al., 2013).

A cat may not be deterred from using the same litter box as another cat however, it is critical that the litterboxes are kept clean (Ellis et al., 2017a; Guy et al., 2014; Neilson, 2004). In multi-cat settings it is considered best practice to provide at least one litter box per cat plus an additional box and these should be spread out in their living area to prevent one cat controlling access to them (Carney et al., 2014; Grigg et al., 2013; Neilson, 2004).

Cats restricted from the outdoors are at increased risk of behavioural problems likely related to frustration and boredom (reviewed by Tan et al., 2020). Observations of cat behaviour whilst outdoors such as predation, travelling, exploring, exercising, climbing, perching, and monitoring surroundings indicate there is a welfare benefit for cats to have access outside (see Tan et al., 2020).

A cat's behavioural needs can be met in enriched indoor environments or outdoor housing, or in a garden with an escape proof fence (de Assis & Mills, 2021).

8.2 Enrichment: Minimum Standard No. 23 – Enrichment

Enrichment is the provision of objects or activities that give opportunities for animals to express behaviours, actively engage with their environment, and socialise (Špinko & Wemelsfelder, 2011), which allow animals to engage in experiences that they may find rewarding (Mellor, 2017).

Provision of enrichment is important for all cats. Providing cats with enrichment helps promote normal development, provides opportunities for positive mental and emotional experiences, and reduces the risk of developing abnormal or unwanted behaviours.

Enrichment can promote positive experiences by providing a cat with opportunities to voluntarily engage in behaviour that they find rewarding or pleasurable (Mellor, 2017) Enrichment can fall into five categories; social (e.g., social play with humans or other companion animals), physical (e.g., toys), nutritional (e.g., food puzzles or scatter feeding), sensory (e.g., opportunities to explore new smells), and occupational (e.g., training) (Bloomsmith et al., 1991; Rochlitz, 2005).



Confined cats require enrichment to allow the performance of behaviours that are important for positive mental and emotional experience such as foraging, hunting, climbing, perching, hiding, marking, and scratching and also to prevent boredom, reduce the risk of developing unwanted behaviours, and facilitate weight management (Boissy et al., 2007; Cisneros et al., 2022; Ellis et al., 2013; Lawson et al., 2020; Rochlitz, 2005).

Keeping cats at home may result in negative health and welfare issues for cats, such as obesity, stress and stress-related health and behavioural issues (Herron & Buffington, 2010; Sandøe et al., 2017; Tan et al., 2020; Zoran & Buffington, 2011). Owner-perceived behavioural issues such as scratching furniture, soiling in the house, and excessive vocalisation are higher in confined cats (Sandøe et al., 2017; Schubnel & Arpaillange, 2008) and should be cause for concern in promoting more confined lifestyles for cats without concurrent promotion of enrichment strategies to mitigate problems.

All cats should be given regular opportunities to forage, explore, and play (Ellis, 2009; Ellis et al., 2017b; Ellis & Wells, 2010; Herron & Buffington, 2010). This can be facilitated in numerous ways:

- Providing hideouts, tunnels (Ellis, 2009; Herron & Buffington, 2010).
- Using treat balls, placing food around the home or enclosure, and having toys that simulate chasing and stalking will encourage natural hunting behaviours (Ellis, 2009).
- Human interaction, for example through training or playing with toys, can also be enriching for cats. Interactions between cats and humans should be on the cat's terms, and they should be able to end them at any point (Ellis et al., 2013; Rehnberg et al., 2015).
- Training cats can be used to facilitate normal behaviours such as exploration (Bollen, 2015) which may be a feasible option for supervised access outdoors where no other options exist (see the section on Training for more information).

Toys and furniture should be switched around every now and again to provide cats with novelty and variety (Rochlitz, 2005). However, care should be taken to not entirely remove items or clean areas so that their scent markings are removed (Ellis et al., 2013).

Enrichment items must be non-toxic and not cause injury (Ellis et al., 2013). The impact of enrichments on the cats' physical and mental wellbeing should be monitored so that enrichment should be removed or changed if the outcome is negative (Ellis, 2009). Enrichment items should not overcrowd the space available for cats to move. Enrichment should be presented as a choice which allows individuals to express subjective preferences which can also vary with the context (Ellis et al., 2013). Enrichment items such as laser pointers may be frustrating for a cat (i.e., when they cannot 'catch' the point), therefore, caution should be exercised when using these devices (Kogan & Grigg, 2021).

8.3 Training Cats: Minimum Standard No. 24 – Training Cats

A cat can be trained using reward-based methods such as positive reinforcement and use of food, praise, petting, and play (Gruen et al., 2013; Kogan et al., 2017; Lockhart et al., 2013; Pratsch et al., 2018; Riemer et al., 2021).

Training animals can help reduce stress for both the cat and the person associated with certain situations such as entering a travel crate, being handled, having blood drawn, and having nails trimmed (Gruen et al., 2013; Lockhart et al., 2013; Pratsch et al., 2018; Rodan et al., 2022).



Training a cat to walk on a harness can facilitate normal behaviours such as exploring the outdoors (Bollen, 2015). However, this needs to be at a pace that respects the cat's comfort level and ability to learn (Bollen, 2015; Rodan et al., 2022).

Training is also a form of enrichment which can mentally and physically stimulate a cat, facilitate exercise, and provide an opportunity for the cat and human to bond (Kogan et al., 2017).

Cats can be easily frightened or stressed when handling and training takes place (Riemer et al., 2021; Rodan et al., 2022). Aversive training techniques or equipment such as yelling at a cat or spraying a cat to stop or prevent unwanted behaviour should not be used (Amat et al., 2016; Rodan, 2010).

PART 9: Transporting Cats



Minimum Standard No. 25 – Transporting Cats

Adult cats may show varying degrees of anxiety when confined in a cat-carry container and transported in a vehicle (Gruen et al., 2013; Pratsch et al., 2018; Riemer et al., 2021). To ensure the safety of both the cat and the occupants of the vehicle, and occupants of other vehicles, cats must be securely contained while being transported in a vehicle (Center for Pet Safety, n.d; Swallow et al., 2005). Unless the crate has been safety tested, do not use the seat belt to secure it; the crate is more secure on the floor behind one of the front seats (Center for Pet Safety, n.d).

Cats must be prepared for transport to prevent or mitigate the welfare consequences that they may experience related to transport, such as handling stress, injuries, restriction of movement, sensory overstimulation, motion stress, heat stress, cold stress, prolonged hunger and prolonged thirst (Pratsch et al., 2018; Riemer et al., 2021; Rodan et al., 2022; Tateo et al., 2022).

Providing a cat with a place to hide and with objects or bedding that have the cat's odour can help minimise stress during travel. An old bed can be provided with space to hide in their travel container (Pratsch et al., 2017; Taylor et al., 2022).

Cats should be transported within a suitable carry container which keeps them confined but comfortable (Taylor et al., 2022). Cat-carry containers should be constructed from fibreglass, metal, rigid plastic, weld metal mesh (although the weld metal mesh should not be at the bottom of the container to protect the cats' feet), solid wood, or plywood (International Air Transport Association [IATA], 2023, Swallow et al., 2005). Containers made of sturdy reinforced fabric may be suitable for certain cats and where cats are monitored to ensure they have not chewed or clawed through the fabric. Ensure a cloth container has strong connection points between the handles and the body of the crate and where mesh panels are attached to the body of the crate (Center for Pet Safety, 2015).

Containers should be well-ventilated (Tateo et al., 2022; Taylor et al., 2022). A cloth covering the container (provided it does not impede ventilation) may help some cats to travel with less stress (Taylor et al., 2022).

Care needs to be taken when transporting cats by car. The temperature in a closed vehicle in full sun can reach over 50 degrees Celsius in less than fifteen minutes (King et al., 1981; McLaren et al., 2005; Roberts



& Roberts, 1976). Temperatures will rise to dangerous levels even on overcast days and cracking open the windows does not slow the rate of temperature increase (King et al., 1981; McLaren et al., 2005; Roberts & Roberts, 1976). Cats will begin to show signs of heat stress, such as panting, at temperatures of 40 degrees Celsius (Baker, 1972).

Transporting cats over long distances, either by road or by air, have additional requirements such as appropriate ventilation, provision of water, and litter box (IATA, 2023).

Sedating a cat for transportation is not recommended, but medication for anxiety or nausea may be beneficial (Tateo et al., 2022; Taylor et al., 2022).

PART 10: Humane Killing*



Minimum Standard No. 26 – Humane Killing

It is an offence under Section 12(c) of the Act to kill an animal in such a manner that they suffer unreasonable or unnecessary pain or distress. A humane killing requires brain activity to cease as rapidly and painlessly as possible, with death ensuing as soon as possible (as defined in other codes of welfare).

Euthanasia is the induction of a painless and rapid death where this is for the benefit of the animal (e.g., to mitigate suffering). The preferred method of euthanasia for cats is by a veterinarian using an intravenous injection of a drug registered for this purpose, in accordance with the American Veterinary Medical Association Guidelines for Euthanasia (2020).

The Act provides for the euthanasia of a severely injured or sick cat by a veterinarian where in their opinion, the animal should be killed 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 (Animal Welfare Act, 1999). A veterinarian may euthanise a cat without the permission of the owner, where the owner cannot be found within a reasonable time or where the owner does not agree to the euthanasia but does not obtain a secondary opinion from a veterinarian within a reasonable time. A warranted inspector or auxiliary officer under the Act (e.g., an SPCA inspector or auxiliary officer) may also perform this task; or provide authority to a veterinarian to destroy an animal. However, it is preferable that euthanasia be performed by a veterinarian if immediately available (Animal Welfare Act, 1999).

It is an offence to kill a cat of any age by drowning. Drowning is not a humane death (AVMA, 2020; Beausoleil & Mellor, 2015). Drowning causes a series of physiological and chemical responses in the body resulting in fast and lasting decrease of oxygen in the blood, ingestion of liquid in the airways, acidosis, and high levels of carbon dioxide in the blood; all these symptoms an animal experiences while conscious (Beausoleil & Mellor, 2015; McEwen & Gerdin, 2016). Drowning leads to severe ‘air hunger’, which is considered the most unpleasant affective state associated with breathlessness (Beausoleil & Mellor, 2015).

**Please note: Section titles are set by NAWAC. SPCA prefers the term ‘End of Life’.*



Killing a cat using carbon monoxide is only considered acceptable for euthanasia with the conditions that require personnel are trained on the hazards of its use, proper equipment that is of high quality construction, in a controlled environment that is monitored for hazards, is compliant with local laws, and the carbon monoxide is a purified form free from contaminants or adulterants (AVMA, 2020). Using car exhaust as a source of carbon monoxide to kill a cat is not humane due to the prolonged period to death, and signs of agitation prior to loss of consciousness (AVMA, 2020; Simonsen et al., 1981).

Lethal traps should cause irreversible loss of consciousness and death as quickly and painlessly as possible and avoid catching non-target animals. Only traps that have passed welfare performance testing should be used such as the NAWAC Guideline 09 (NAWAC, 2019).

A humane shooting should result in the shortest period between when the animal is shot and when they experience irreversible loss of consciousness followed by death (Aebischer et al., 2014; Sharp & Saunders, 2012b; Stokke et al., 2018). Best practices to ensure a humane shooting include (Aebischer et al., 2014; Sharp, 2012):

- shooters are competent and can clearly identify the animal before taking a shot.
- the correct firearm, ammunition, range, and shot placement is used.
- a wounded animal is promptly killed; and
- if lactating animals are killed, efforts are made to find and humanely kill her offspring. All efforts should be made to avoid peak kitten season.

PART 11: Contingency Planning



Minimum Standard No. 27 – Contingency Planning

Contingency plans for emergencies such as natural events (e.g., earthquakes, floods, fires, storms, snow or drought, biosecurity events and infrastructure failures) need to be in place to ensure the welfare of animals (Glassey, 2022).

Civil Defence and Emergency Management (CDEM) encourage all owners and persons in charge of a cat should develop their own plan to care for emergencies (Ministry of Civil Defence and Emergency Management, 2015). Planning for emergencies can protect both animal and human welfare. The willingness of people to evacuate in emergencies is heavily impacted by their ability to evacuate their companion animals (Glassey, 2022). Preparing for emergencies can protect animal welfare by avoiding problems to begin with and help minimise welfare such as thirst, hunger, disease, and exposure to hazards such as extreme weather (Glassey, 2022). It is well recognised by international and national groups that emergency planning and assembling an animal specific evacuation kit for cats is part of responsible cat ownership (AVMA, 2016; NZVA, 2018, NCMMSG, 2020). Access to crates is imperative to facilitating improved response in emergencies (Glassey, 2022).



PART 12: Stray Cats in Managed Colonies



Minimum Standard No. 28 – Cats Living in Managed Colonies

Cat colony management plans need to include means of identification of cats; provision of food, water, and shelter; a vaccination and parasite programme; provision of veterinary treatment; a desexing programme; and a long-term management strategy including continuity of care.

Desexed stray cats have been found to have better welfare compared to intact cats (Gunther, et al., 2018). Improved health for both male and female cats in managed colonies may be related to decreased risk of infectious disease, nutritional deficiencies, and stress associated with reproduction (Gilhofer et al., 2019) and reduced reproduction related aggression in males (Cafazzo et al., 2019; Finkler et al., 2011; Gunther et al., 2018).

Success in decreasing a cat colony, including to extinction, using trap-neuter-return varies (Jones & Downs, 2011; Kilgour et al., 2017; Levy et al., 2014; Slater 2015). Some studies report declines in colony size (Levy et al., 2003; Natoli et al., 2006), whereas others report an increase in colony size over time (Castillo, 2003; Gunther et al., 2011). An increasing body of evidence indicates that long-term TNR programmes can effectively reduce free-roaming cat populations, especially those programmes that include an adoption programme, monitoring, and desexing of new cats arriving at the colony (Hughes & Slater 2002; Kilgour et al., 2017; Levy et al., 2003; Spehar & Wolf, 2019; Stoskopf & Nutter, 2004).

Population modelling suggests that 75-80 % of adult breeding cats in a colony need to be desexed to see 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 (Boone, 2015; Kilgour et al., 2017; Miller et al., 2014; Schmidt et al., 2009).

A colony will require monitoring for any new cats that immigrate into the area to ensure they are provided care, desexed, and identified. Colony size increases are more likely when there are high rates stray or abandoned cats entering the colony from strays or abandoned owned cats (McCarthy et al., 2013; Miller et al., 2014, Natoli et al., 2006).

Part 13: Welfare Assurance System: No Minimum Standard

7. How will the code change existing arrangements for the management of the species or activity in question?

The Code of Welfare for Cats will improve the existing arrangements for cats so that their physical, health, behavioural, mental, and emotional needs are better met to help ensure good welfare.

8. What impacts will the code have on those people affected by it (for example, benefits, compliance costs, risks)? Which sector/groups of people will be impacted the most, and how?



The Code of Welfare for Cats will have the biggest impact on companion cat owners, breeders, and those who provide care in managed colonies. There are many more Minimum Standards in this Code that will require more responsible behaviour from those who are acquiring a cat and those who are supplying them. Additionally, the Minimum Standards for managed stray cats will most impact those individuals and organisations that care for cats, as this will need to be more documentation of desexing, microchipping, and provision of veterinary care.

We want to point NAWAC to the responses from diverse stakeholders related to minimum standards. In many instances there is support for microchipping, desexing, and cat colony management. For other standards, such as those related to scruffing there is concern expressed. We think the broad support for many of the minimum standards signals New Zealanders want to progress these issues to advance cat welfare and reduce the negative impacts of cat overpopulation. We have highlighted comments related to Minimum Standards in grey in Table 2. There are concerns with how they will be enforced and the associated costs, however, in general, these are seen as positive for cat welfare and responsible cat ownership.

9. Who have you consulted? What feedback did you receive?

The draft Code was sent out to 205 organisations and individuals representing people likely to be impacted by the Code. We have consulted a range of stakeholders representing cat owners, veterinarians, rescue organisations, breeders, cat behaviour experts, the legal profession, the pet industry, those with an interest in protecting biodiversity, and local government.

All feedback received through targeted consultation was provided to NAWAC verbatim.

10. Were any significant issues raised about your draft code? How were these issues addressed and if they did not alter your draft code, why not?

All feedback received through targeted consultation was reviewed and responded to. The draft code submitted to NAWAC was revised accordingly.



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