SPCA

SPCA Policy Brief

Mandatory desexing of cats

to improve welfare and reduce cat overpopulation in Aotearoa New Zealand

Key messages

- This policy brief outlines how mandatory desexing of companion cats, unless they are registered breeding animals, would help promote cat welfare and reduce problems with cat overpopulation.
- SPCA advocates for the New Zealand Government to implement legislative requirements for companion cats to be desexed unless they are registered breeding animals.
- Cats are beloved companion animals in New Zealand. There are approximately 1.2 million companion cats in 35-41 % of households across New Zealand.
- Many cat owners are responsible owners. However, SPCA is concerned that the number of owners that desex their cats is on a downward trend.
- People who have not desexed their cats enjoy the benefits of companionship, but do not pay the true cost for not desexing their cat.
- Failing to desex companion cats contributes to cat overpopulation that can negatively impact cat welfare, biodiversity, disease transmission, and local communities.
- The National Cat Management Strategy Group (including SPCA, the New Zealand Veterinary Association, the Morgan Foundation, Local Government New Zealand, Companion Animals New Zealand, and observers MPI and DOC) recommends mandatory desexing, (in addition to microchipping and keeping cats at home), to help address the problems with cat overpopulation.

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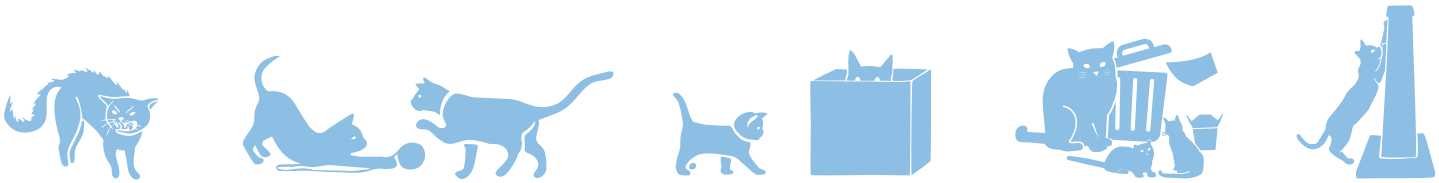
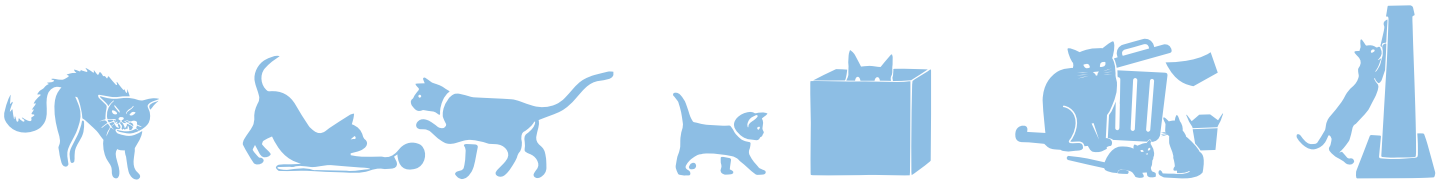


Mandatory desexing of cats would help address problems with animal welfare and cat overpopulation

1. Cats are beloved companion animals in New Zealand. There are approximately 1.2 million companion cats in 35-41% of households (CANZ, 2020; van Heezik et al., 2010). Most owners (88%) desex their cats (CANZ, 2020) however, this has decreased from past years (93.2%; Gates et al., 2019 and 93%; CANZ, 2016).
2. The cost of the procedure is the most common reason owners do not desex their cats. Other reasons for not desexing their cats include owners viewing it as a low priority or they feel it is important for an animal to have offspring (CANZ, 2020).
3. Failing to desex companion cats can result in unplanned litters which puts kittens at risk of welfare harm or contributes to the stray cat populations.
4. SPCA Centres care for over 20,000 cats and kittens each year. Many of these animals are directly or indirectly (through stray cat populations) a result of an owner failing to desex their companion cat.
5. The National Cat Management Strategy Group (NCMSG) recommends mandatory desexing of cats to to help address problems with cat overpopulation. The NCMSG includes SPCA, the New Zealand Veterinary Association, the Morgan Foundation, Local Government New Zealand, Companion Animals New Zealand, and observer members Ministry for Primary Industries and Department of Conservation. See Appendix 1 for the full list of NCMSG recommendations for cat management.
6. SPCA have recently reviewed cat-related policies in New Zealand, including desexing (Sumner et al., 2022). We found that with no national requirement or expectation for companion cat owners to desex their cat, there is no consistent approach to addressing problems with cat overpopulation.
7. In addition, there are concerns at the local level with mandating desexing. Local councils such as Mackenzie District (2021) and Selwyn District (2020) declined to include requirements to desex cats in their bylaw reviews due to concerns with poor compliance and lack of ability to enforce bylaws without national legislation.
8. The current ad hoc approach to mandating desexing of cats does not fully address harms to cat welfare, or harms to other animals and people due to cat overpopulation. We summarise these impacts below. Also see Appendix 2 for a detailed list of the benefits of desexing cats.



Mandatory desexing would improve animal welfare

9. Failure to desex companion cats results in an increased number of cats living as strays and a seasonal influx of unwanted kittens to shelters (Marston & Bennet, 2009; Nutter et al.,2004).

10. Lost, stray, and unwanted cats and kittens creates a complex animal management problem. Euthanasing thousands of healthy domestic cats and kittens each year causes emotional and moral stress for the people involved, and creates financial costs for organisations that manage these cats (NCMSG, 2020).

11. Desexed cats live longer (Banfield Pet Hospital, 2013; Hamilton et al., 1969; Kent et al., 2022; O'Neill et al., 2015) and desexed female cats have a reduced risk of cancer (Dorn et al., 1968; Hampe & Misdorp, 1974; Hayes et al., 1981; Graf et al., 2016).

Addressing cat overpopulation would reduce cat predation, spread of disease, and nuisance

12. Cat predation negatively impacts New Zealand bats, birds, marine mammals, reptiles, invertebrates, and frogs in urban, rural, and wild areas (Fitzgerald & Veitch, 1985; Gartrell et al., 2023; Gillies et al., 2003; Gordon et al., 2010; Norbury & Heyward, 2008; van Heezik et al., 2010).

13. Humans, pastorally farmed animals, and native wildlife are at risk of toxoplasmosis which is spread through cat faeces (Aguirre et al., 2019; Dubey, 2009, 2016).

14. Welfare problems from toxoplasmosis are from infection and co-occurrence with other disease in pastoral animals (Stelzer et al., 2019). Abortions due to toxoplasmosis cost the sheep industry in the Hawke's Bay approximately $18 million in 2014 (Walker, 2014).

15. Toxoplasmosis can lead to death for native wildlife including the nationally vulnerable Hector's and nationally critical Māui dolphins, New Zealand sea lions, kererū, North Island kiwi, North Island kākā, paradise shelduck, and red-crowned kākāriki (Howe et al., 2014; Hunter & Alley, 2014; Michael et al., 2016; Roe et al., 2013).

16. Undesexed companion cats are more likely to roam and cause nuisance through fighting with other cats, damaging property, and disturbing or preying on companion guinea pigs, rabbits, and birds (Stewart, 2014; NZVA CAV personal communication 9 Dec 2019). Stray cats living on private property can also be a source of nuisance.

There is support for mandatory desexing in New Zealand

17. The majority of New Zealanders (58 %) support mandatory desexing (Walker et al., 2017).

18. Despite no national regulation or legislation requiring desexing of cats and kittens in New Zealand, mandates have progressed at the local level:

    a. Palmerston North City Council requires all cats over six months of age must be desexed, with exemptions in place for registered breeders (Palmerston North City Council, 2018).

b. Whanganui District requires any cat over four months of age must be desexed with exemptions in place for registered breeders or the owner provides a certificate from a veterinarian indicating desexing will adversely affect the cat's health and/or welfare (Whanganui District Council, 2020).

c. Whangārei District Council requires any cat over six months of age with exemptions in place for registered breeders, or the owner provides a certificate from a veterinarian that desexing will adversely impact the health or welfare of the cat (Whangārei District Council, 2022).

d. Ruapehu District Council requires that every person who keeps a cat that is over six months of age must ensure the cat is desexed, with exemptions in place for registered breeders, or if a veterinarian deems the procedure will endanger the cat's life (Ruapehu District Council, 2022).

e. Buller District Council requires that any cat over six months of age must be desexed, with exemptions in place for registered breeders, or if a veterinarian deems the procedure will adversely impact the health or welfare of the cat (Buller District Council, 2023).

f. Hutt City Council requires every person who keeps cats must ensure that cats of 12 weeks of age or older are desexed unless they are kept for breeding purposes and registered with a nationally recognised breeders' body (Hutt City Council, 2024).

g. Wellington City Council requires all domestic cats over the age of six months must be desexed unless they are kept for breeding purposes and the owner is registered with a recognised New Zealand registering body. Cats are exempt if a veterinarian deems undergoing the surgery would place the cat at unnecessary risk (Wellington City Council, 2024).

19. In July 2017, Local Government New Zealand (LGNZ) passed a remit (51 % in favour) supporting lobbying Government for a national cat management plan, and allowing territorial authorities regulatory power to protect native wildlife by promoting responsible cat ownership, including desexing (LGNZ, 2017). However, Government failed to progress national cat management, including requirements for desexing cats and kittens.

20. In August 2023, the Environment Select Committee released their report recommending Parliament to develop legislation for nationwide cat management including requiring companion cats to be desexed, microchipped, and registered with appropriate exemptions (Environment Committee, 2023).

Desexing has been mandated in other jurisdictions

21. Australia has had similar issues with overpopulation of unwanted companion cats. In the last 20 years four Australian states/territories have mandated desexing cats by a certain age: South Australia, Tasmania and Western Australia require desexing by six months of age; the Australia Central Territory requires a person to have a permit for an undesexed cat (see Royal Society for the Prevention of Cruelty to Animals Australia, 2018).

22. In the United States, some local jurisdictions and states require most cats adopted from shelters to be desexed (AVMA, 2019).

23. There has been limited evaluation of the impacts of desexing legislation in Australia, and the quality of assessments in the United States make it difficult assess effectiveness (AVMA, 2019).

24. Although mandating desexing of companion cats and kittens is well supported in New Zealand, there are groups (outside of New Zealand) that have expressed opposition. These are detailed in Appendix 3: Opposition to Mandatory Desexing of Cats and Kittens.

Recommendations for mandatory desexing of companion cats and kittens

Content of cat legislation

25. SPCA recommends the following key points for mandating desexing of companion cats:

    a. **Purpose:** Mandate desexing of companion cats to provide for the welfare of individual cats and reduce the impact of cat overpopulation through responsible cat ownership.

    b. **Definitions:** Companion cat means a cat considered owned by a person, sociable, and directly dependent on humans.

    c. **Requirements:** Allow for national regulations that would require cat owners to desex their cats by the age of four months or prior to sale or transfer of ownership. Registered breeding animals would be exempt from desexing. A cat would be exempt from desexing if a veterinarian determines it is detrimental to health and welfare of the cat.

26. Given that the majority of New Zealanders (58 %) obtain their companion cats through formal channels (CANZ, 2020b), mandating desexing at the point of sale or transfer of ownership is likely to have impact.

Who will be impacted by cat legislation

27. The following groups will be potentially impacted by mandating desexing:

    - **Cat owners:** The largest impact would be for owners who cannot afford desexing their cat or have not yet done it.
    - **Breeders and sellers of cats:** Breeders and sellers would have to desex cats and kittens not registered for breeding. They would need to register their breeding animals to be exempt from desexing requirements.
    - **Veterinarians:** Veterinarians may need to desex at an earlier age than the more conventional age of six months. They would need to be aware of requirements related to exemptions for desexing.

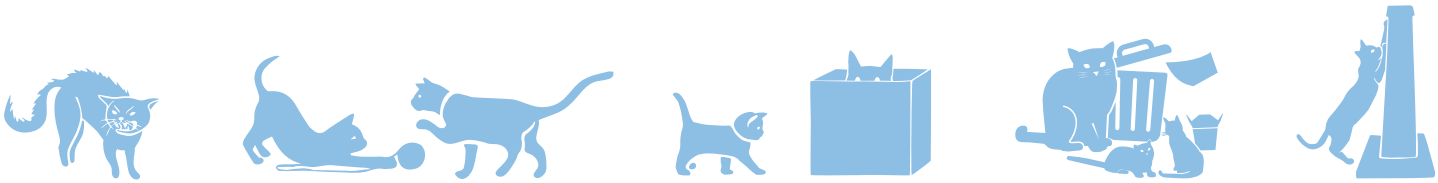
- **Companion animal groups and cat rescues:** Groups that promote responsible cat ownership are supportive of desexing. Cat rescue organisations and animal shelters would benefit from a reduction of incoming stray cats and unplanned litters of kittens.
- **Local Government:** A major barrier would be removed for local councils interested in addressing cat issues, but have not felt able to take action due to no legal framework.
- **Conservation groups:** Conservation groups are supportive of desexing, would likely welcome this step towards improved cat management to protect wildlife.
- **Local communities:** Local communities would benefit from reduced nuisance such as cat fights, spraying, defaecating in gardens, and creating noise.

Barriers to mandating desexing

28. Mitigation strategies are needed to overcome barriers to mandating desexing such as: the cost of the procedure, veterinary readiness to provide services such as desexing young kittens, compliance with the legislation, and perverse outcomes that harm people or animals.

Table 1: Barriers and Mitigations to Mandatory Desexing

Barrier	Mitigation	Strategy
Cost of enforcement	Identify funds to support enforcement.	Cost recovery model such as required registration and fee reduction for desexed animal(s), fee-based permit system for breeders and sellers.
Cost of desexing	Increase availability of low-cost desexing.	Expand and strengthen capacities to offer low cost desexing e.g., SPCA's Snip ' n' Chip.
Logistics of desexing	Increase access to low-cost desexing.	Partnerships between organisations and local government to faciliate access to desexing service providers.
Conventional age of desexing	Increase the number of veterinarians that desex cats before puberty.	Ongoing education and training of veterinarians to desex cats before the conventional age of six months.
Breeder compliance	Require registration to breed cats.	Creation of permit system and registry of breeders or support improvements to the current registration schemes. Inspections based on registered members.
Seller compliance	Require registration to sell cats.	Creation of permit system and registry of sellers. Inspections based on registered members.



Barrier	Mitigation	Strategy
Rescuer compliance	Require registration to rescue and rehome cats.	Creation of permit system and registry of rescues. Inspections based on registered members.
Owner attitudes	Education and engagement about importance of desexing.	Multi-stakeholder approach to engagement including government, the veterinary community, and welfare/ rescue organisations.
Perverse outcomes such as increase in surrenders, abandonment, access to veterinary care	Reduce the negative impact of mandating desexing.	Implement comprehensive, humane, and effective companion services for cat owners. Legislation must provide clear pathways that facilitate behaviour change, in addition to punitive measures.

Next steps

29. SPCA advocates for the New Zealand Government to take leadership in cat management, including via requiring desexing. The problems with overpopulation of cats in New Zealand must be viewed as a public problem, requiring a policy solution such as mandatory desexing by four months of age, or at at point of sale/transfer of ownership.

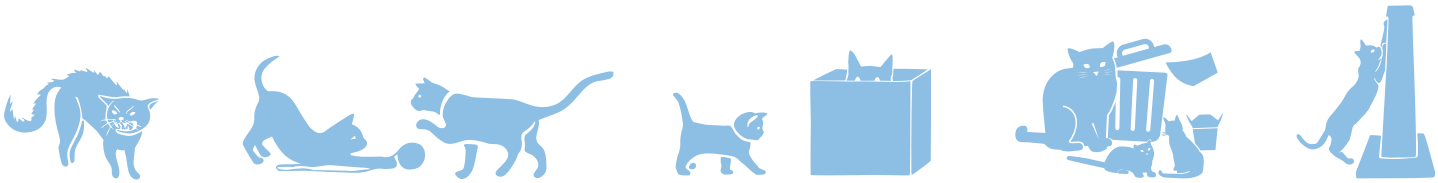
30. SPCA recommends that the following pathways to be considered:

    a. **Comprehensive national cat management legislation (a National Cat Act) including requirements for desexing cats and kittens.** This would enable local councils to take action, and is the recommendation of the National Cat Management Strategy and the Environment Select Committee on this topic. See the SPCA Policy Brief and Background Document for National Cat Legislation for more information.

    b. **Inclusion of mandatory desexing as a Minimum Standard in the relevant Codes of Welfare for Cats & the Temporary Housing of Companion Animals issued under the Animal Welfare Act 1999.** Desexing would be clearly prescribed in tertiary legislation and sends a strong message of the importance of desexing cats at a national level.

    c. **Inclusion in Animal Welfare Regulations issued under the Animal Welfare Act 1999.** Desexing would be clearly prescribed in regulation, sends a strong message of the importance of desexing cats at a national level, and is directly enforceable.

31. Establishing an exemption for breeding animals may require the formation of a national breeder register. SPCA is currently in discussions with MPI on the feasibility of progressing this work for both cats and dogs.



Appendix 1: NCMSG Executive Summary and Recommendations

The full National Cat Management Strategy Group Report can be found here.

Executive Summary

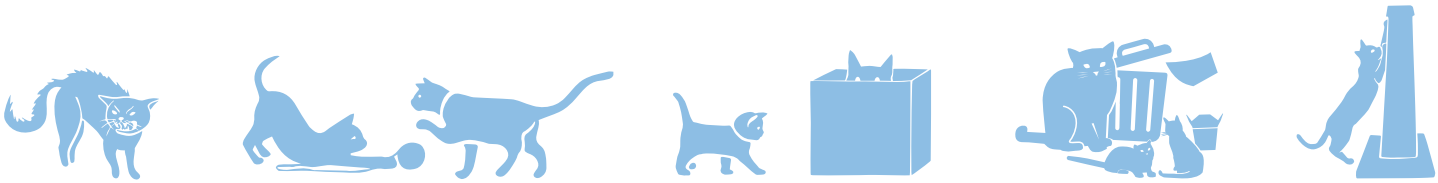
The National Cat Management Strategy Group (NCMSG) recognises the intrinsic value of cats as complex and sentient beings, their value as a companion animal in New Zealand, and their value to communities, and New Zealand society. The NCMSG also recognises the importance of balancing the needs of cats, cat owners, and cat carers with the potential negative impacts of cats on communities, other species, and ecosystems. The New Zealand National Cat Management Strategy Report outlines recommendations and supporting evidence to achieve humane management of cats in New Zealand to protect both cat welfare and our unique environment.

Improved categorisation of cats which reflect the complexity of cat overpopulation are needed for successful management. The companion, stray, and feral cat categories have limited the ability to effectively manage cats in the past, particularly grouping all 'stray' cats together; this category should include better differentiation among stray cats to inform management strategies. The divisions within each of the proposed categories in this report will enable effective and legal management of different types of cat populations, whilst also providing added safety for previously unprotected cats.

The National Cat Management Strategy Group has assessed the existing literature and available resources concerning feral and domestic cat management strategies and taken into consideration feedback from stakeholder consultation to devise evidence-based recommendations for parties undertaking cat management in New Zealand.

Efforts to manage cats in New Zealand should be monitored and evaluated to determine their effectiveness in controlling cat populations and providing benefits to local wildlife. Robust evaluation of cat management programmes will provide much needed information for other governments, cat advocates, and environmental organisations that undertake steps to address problems with cat overpopulation.

Cat management is complex, and the interests of all parties should be considered in decision-making. There is no 'one solution' for humane cat management and environmental protection; instead, different solutions are needed for different contexts. Humane and effective cat management requires all stakeholders to work together to ensure the diverse values associated with cats (including the intrinsic value of cats as sentient beings, their companionship, and the value of New Zealand's biodiversity) remain the guiding motivation for action.



Key recommendations of the NCMSG for effective and humane cat management:

1. **Acknowledge that all cats are sentient.**

All legislation and plans to manage feral and domestic cats:

- Must recognise cats are sentient beings under the Animal Welfare Act 1999;
- Be informed by science and ethics to:
  - promote of the value of cats to enhance the human-cat bond, advance responsible ownership, break down barriers preventing ownership, and reduce cat surrender and abandonment; and
  - determine the most humane approaches to stray and feral cat management.
- Use improved categories of cats to inform cat management. The following cat population categories provide the basis for a management framework:
  - Feral cats; and
  - Domestic cats;
    - Companion (owned) cats; and
    - Stray cats: socialised stray cats (managed and unmanaged); and unsocialised stray cats (managed and unmanaged).

2. **Community education programmes about the negative impact of cats are enacted to:**

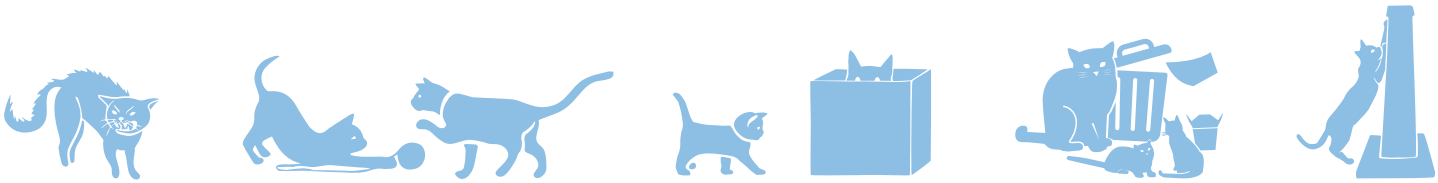
- reduce nuisance behaviour;
- reduce the risk of disease transmission; and
- reduce the negative impacts of cats on biodiversity.

3. **Government leadership in developing a national integrated, one welfare approach to toxoplasmosis management to:**

- ensure consistent vaccine coverage for farmed animals;
- support research into toxoplasmosis vaccine development for humans and animals;
- develop tools to measure the risk of toxoplasmosis on all farmed animal species, wildlife, and human health;
- ensure implementation of integrated pest management on farms (e.g., rodents and feral cats) including rodent control, and improvement of food and water hygiene; and
- ensure implementation of action plans to mitigate the risks of toxoplasmosis on marine wildlife.

4. **Sensitive wildlife areas are identified and protected from cats.**

Sensitive wildlife areas should be identified nationwide for effective cat management. Subsequently, implementation of comprehensive and humane removal of cats from within those areas is required. Cats should be permanently removed and excluded from future re-inhabitation.



5. Integrate best practice cat management nationally for all cats.

Feral and domestic cat management should be integrated to ensure no gaps in responsibilities, laws, and initiatives. Individual cat movement between different populations is fluid, therefore, a coordinated and multifaceted approach through the development of national cat management plan is needed to address all sources of cats in a population. This management plan should provide a framework for best practice management for companion, stray, and feral cats, and include:

- the development of relevant Codes of Practice and Standard Operating Procedures for national cat management methods to ensure consistency in cat management practices; and
- the development of an auditing programme to promote compliance with best practice cat management.

Best practice responsible cat ownership

Responsible cat ownership should include:

- mandatory identification (microchipping) and desexing of all cats prior to puberty and the regulation of breeding; and
- implementation of cat containment (mandatory in sensitive wildlife areas).

Best practice stray cat management

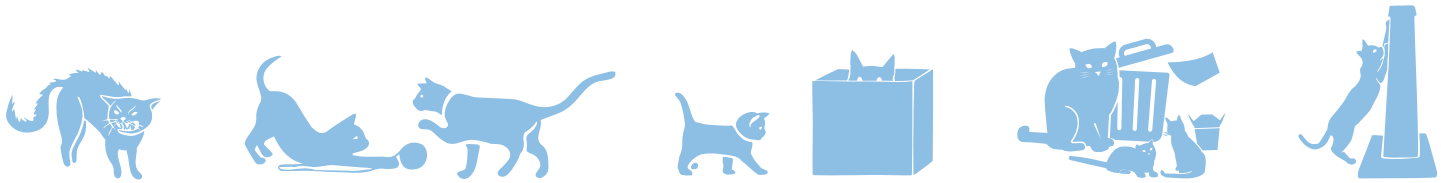
The intention of stray cat management is to reduce the population of unowned cats humanely and effectively. Stray cat management should include the development and implementation of:

- best practice Stray Cat (including colonies) Management Guidelines. Guidelines should include managed and targeted trap-neuter-return (mtTNR) programmes;
- a managed stray cat registry; and
- nationwide programmes for stray cat carers about responsible cat management with an emphasis on desexing, identification, and appropriate health care of managed stray cats.

Best practice cat management in sensitive wildlife areas

Sensitive wildlife areas are not suitable for mtTNR programmes.

Where mtTNR is inappropriate due to proximity of a sensitive wildlife area, the NCMSG supports trap and rehome as a strategy to manage stray cats. Where no other humane and non-lethal approaches are available the NCMSG reluctantly acknowledges that trap and humane killing methods for stray cats may be necessary to protect vulnerable native species. These methods are only acceptable if they are carried out in accordance with best practice guidelines to safeguard cat welfare.



6. **Consistent legislation, approach, and commitment to cat management from Government**

The enactment of a National Cat Management Act will allow for mandated, comprehensive, and consistent implementation of nationwide humane management of all cat populations in New Zealand and ensure that enforcement can occur under the legislation.

The enactment of a National Cat Management Act will allow for the creation and implementation of local cat bylaws to assist with the humane management of cats.

7. **Incremental change to legislation**

Changes in cat management under legislation should be incremental to allow public education, acceptance, and compliance with new requirements. It will likely be necessary to mandate components of the plan to make it effective. These changes must come from central and local government and be implemented locally.

8. **Develop public engagement strategies to understand community support for cat management and facilitate human behaviour change**

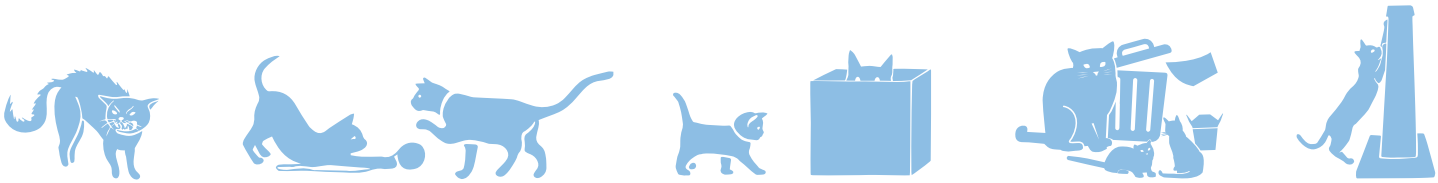
Public engagement is needed to understand the diverse values, beliefs, attitudes, and social norms related to cats. Public engagement can also include activities to educate and support human behaviour change including:

- Responsible Cat Ownership; and
- humane non-lethal and lethal control of stray and feral cats.

9. **Robust monitoring and evaluation are integrated into all cat management strategies to identify problems and solutions.**

Evaluation of cat management strategies is needed to determine their effectiveness and inform changes to ongoing cat management plans at the national and local level and should include:

- evaluation measures and processes for data collection agreed upon by all stakeholders;
- positive and negative outcomes publicly reported to ensure transparency;
- assessment of the effect of owned and stray cat management strategies on feral cat numbers and their impacts on wildlife;
- cat management strategies that are adapted and improved as new evidence becomes available; and
- creation and implementation of a centralised national database to track relevant cat management statistics.



10. Establish a national cat management advisory committee.

A National Cat Management Advisory Committee should oversee research, operationalise management plans, and coordinate and oversee evaluation of management strategies. Funding and support from government and other stakeholder groups will be necessary to achieve this. An important component of the National Cat Management Advisory Committee will be the use of research to inform ongoing humane cat management strategies, including national allocation of resources, coordination, and priority setting.

11. Establish local cat management advisory groups.

Local governments should consider establishing cat management advisory groups with terms of reference that include:

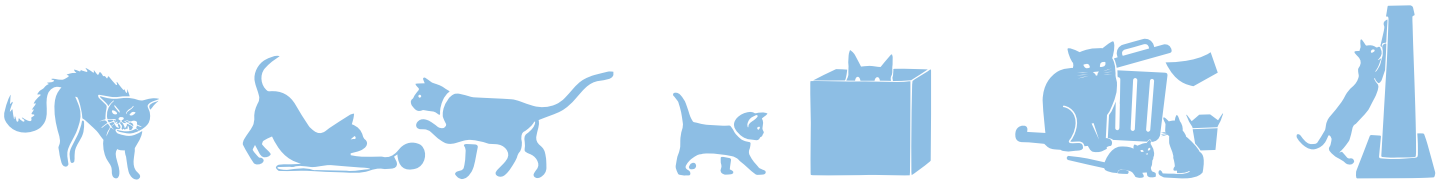
- introducing and monitoring cat management plans in coordination with national mandatory requirements;
- consulting with key local stakeholders and communities; and
- identifying key metrics to evaluate the effectiveness of cat management plans.

12. Development of strategic partnerships among organisations with an interest in cat management

Humane and effective cat management requires all stakeholders to work collaboratively, including the adoption of MOUs between major stakeholders. This collaboration will require ongoing communication and involvement of all cat stakeholders in decision making processes.

13. Prioritise community engagement to determine the most appropriate strategies for cat management and promote sustainable outcomes for all interested parties.

Effective and humane cat management will require identifying and engaging local community members with an interest in cat management based on their relationships with cats.



Appendix 2: The benefits of desexing

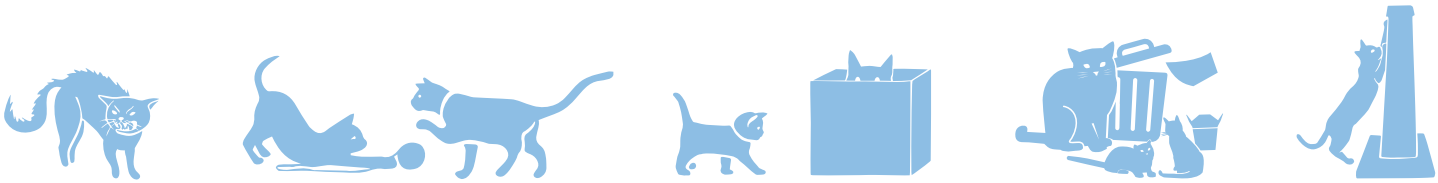
Desexing helps address problems with cat overpopulation (Joyce & Yates, 2011; Yates et al., 2013), and reduces the number of kittens that enter shelters and euthanased (New et al., 2000; Marston & Bennett, 2009; Marsh, 2010).

Welfare Benefits of Desexing

Desexing can improve the welfare of cats by reducing risk of disease, likelihood of roaming (which can increase risks of harms such as disease and infection, injury, and becoming lost), and increasing lifespan. Desexing can also prevent unwanted kitten mortality which is often overlooked as a welfare impact.

Table 2: Welfare benefits of desexing cats

Decreased risk of reproductive disease
• Mammary gland tumours are common in cats: > 16.3 % of all tumours reported in an Italian registry are in the mammary gland, which made this the second most common tumour site (Vascellari et al., 2009). > 17 % of all cancers reported in a California registry were in the mammary gland (1963-1966) which made this the third most common cancer (Dorn et al., 1968). > 8.2 % of tumours reported in a Swiss feline cancer registry (1965-2008) were mammary gland tumours (Graf et al., 2016). > Japanese and Siamese breeds are at increased risk of mammary tumours (Graf et al., 2016; Hayes et al., 1981; Ito et al., 1996).
• Mammary tumours in cats have a high risk of being malignant: > >90 % of mammary gland tumours in cats have been reported as malignant (Dorn et al., 1968; Hampe & Misdorp, 1974; Hayes et al., 1981). > 83 % of mammary tumours in cats that were reported in a Swiss feline cancer registry were malignant (Graf et al., 2016).
• Desexing is protective against mammary tumours in cats: > Sexually intact cats have seven times the risk of developing mammary gland neoplasms when they get older compared to spayed female cats (Dorn et al., 1968). > Ovariectomy was found to protect against mammary carcinomas but not against benign mammary tumours. Intact cats are seven times overrepresented in the population of cats diagnosed with mammary tumours (Misdorp et al., 1991). > Desexed female cats had significantly lower odds than entire female cats of developing tumour/malignant tumour in the mammary gland (Graf et al., 2016).



- Desexing before one year of age is protective against mammary carcinoma (Overley et al., 2005):
  - 91 % reduction in risk if desexed before 6 months.
  - 86 % reduction in risk if desexed before one year.
  - Desexing after two years increased the risk (likely due to very few cats being desexed after this age).
- Pyometra (uterine infection) risk increases significantly with age for female cats (Potter et al., 1991).

Increased lifespan and improved overall health

- Undesexed companion cats have significantly shorter lifespans than desexed companion cats (Hamilton et al., 1969; Kent et al., 2022; O'Neill et al., 2015).
- Being undesexed is a risk factor for cats developing degenerative joint disease (Lascelles et al., 2010; Slingerland et al., 2011), which is a leading cause of pain in cats (Robertson et al., 2010).
- Improved health for both male and female cats in managed colonies may be related to reduced reproduction-related aggression in males (Cafazzo et al., 2019; Finkler et al., 2011).
- Desexed male cats live an average 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).
- For companion cats over five years of age in an English veterinary database, desexed female cats lived .6 months longer than undesexed female cats and desexed male cats lived 1.8 years longer than undesexed male cats (O'Neill et al., 2015).
- For companion cats over 1 year of age in a California teaching hospital database (Kent et al., 2022):
  - Desexed females had a median lifespan of 10.48 years, compared to undesexed females that had a median lifespan of 4.68 years.
  - Desexed males had a median lifespan of 9.84 years, compared to undesexed males who had a median lifespan of 3.67 years.
- For companion cats over the age of five years of age in a Pennsylvania database (Hamilton et al., 1969):
  - Desexed male cats lived a median of 10.8 years compared to undesexed males who lived a median of 8.6 years. Deaths from trauma and infections were less common in desexed males.
  - Male cats desexed before the age of five months, had a median lifespan of thirteen years compared to male cats desexed at six to seven months who had a median lifespan of eleven years.

- Cats at least six years of age and not desexed in an English database were twice as likely to have signs related to degenerative joint disease (Maniaki et al., 2021).
- Desexed stray cats were in better welfare condition compared to intact cats likely due to reduced reproduction-related aggression in males (Gunther, et al., 2018).
- Desexed male and female cats in a TNR (Trap Neuter Return) managed colony were less likely to be injured or have impaired health which may be related to decreased risk of infectious disease, nutritional deficiencies, and stress associated with reproduction (Gilhofer et al., 2019).

Decreased roaming risks

- 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).

Improved kitten welfare

- Unplanned kittens contribute to high numbers of animals surrendered to shelters. Kittens under the age of six months made up the largest proportion of owner-surrender cats to an animal shelter in Australia; 34 % of all owner-surrendered animals were emaciated (Marston & Bennett, 2009).
- Kittens that enter the shelter system because they are from unplanned breeding can often be in a poor state of welfare. This is before shelter entry and not related to shelter stay. An average of 30 % of kittens that came into SPCA Centres are categorised as not healthy at intake. Not healthy categories include Dead on Arrival; Unhealthy not treatable; Unhealthy treatable (urgent); Unhealthy treatable (non-urgent) (SPCA Intake Health Data: Jan 2021-Jul 2023)
- Free-roaming kittens had the highest prevalence of emaciation and thinness, lowest BCS (Body Condition Score) scores, and higher prevalence of severe injury or disability than adults. (Gunther et al., 2018).
- There is high variability among kitten mortality in stray cats, however, at least one study showed 75 % mortality before six months, with trauma being the most common cause of death (Nutter et al., 2004).

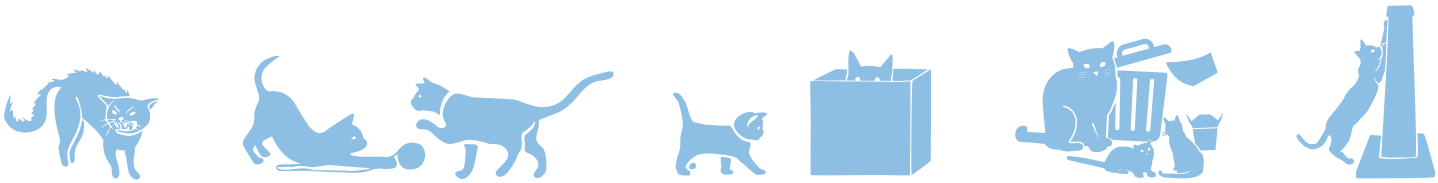
Desexed cats are at increased risk of being overweight and obese (Chiang et al., 2022; Gates et al., 2019; Fettman et al., 1997; Kanchuk et al., 2002; Nguyen et al., 2004). Desexed cats are also at increased risk of developing diabetes mellitus (Panciera et al., 1990; McCann et al., 2007; Prahl et al., 2007). The relationship between these potential health problems and desexing is not clear, however, controlling a cat's weight with diet and exercise can help reduce these risks (Backus et al., 2007; Nguyen et al., 2004).

Appendix 3: Opposition to mandatory desexing of cats and kittens

Policies that mandate desexing are controversial due to concerns over perverse outcomes. However, there is a lack of quality data, and it is difficult to disentangle outcomes related to other policies. The Australian Veterinary Association (AVA), American Veterinary Medical Association (AVMA), and American Society for the Prevention of Cruelty to Animals (ASPCA) advocate for desexing to control populations of cats and improve the cat welfare, however, these organisations do not support mandating it.

Table 3: Challenges with mandating desexing of cats

Impact	Source
• In the Australian Capital Territory, there was no positive association between mandated desexing at six months of age and shelter intake or euthanasia at one of two area shelters	Hayward, 2007
• The legislation is difficult to enforce, or is inconsistently enforced	AVA, 2017; ASPCA, n.d.
• Does not address the root causes of animals ending up in shelters	AVA, 2017; ASPCA, n.d.; AVMA, 2019
• Desexed animals are difficult to identify	ASPCA, n.d.
• Decreasing numbers of cats in these countries (indicating other mechanisms are working)	AVA, 2017; ASPCA, n.d.
• No evidence to support current mandatory desexing laws lead to a reduction in the number of cats entering shelters	AVA, 2017; ASPCA, n.d.
• Increases in the number of animals surrendered to shelters, and disproportionately targets owners or lower-economic status	Crawford, 2019; ASPCA, n.d.
• Cat sterilisation at 6 months of age has mixed support, with 16 % indicating it is not appropriate, 46 % unsure, and 37 % indicating it is appropriate.	Government of Western Australia, Department of Local Government, Sport and Cultural Industries, 2019



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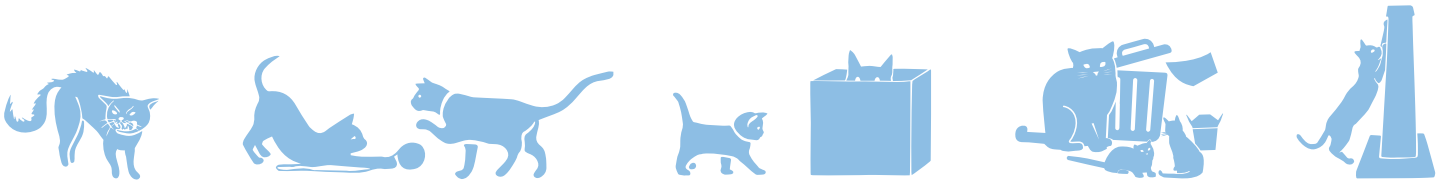

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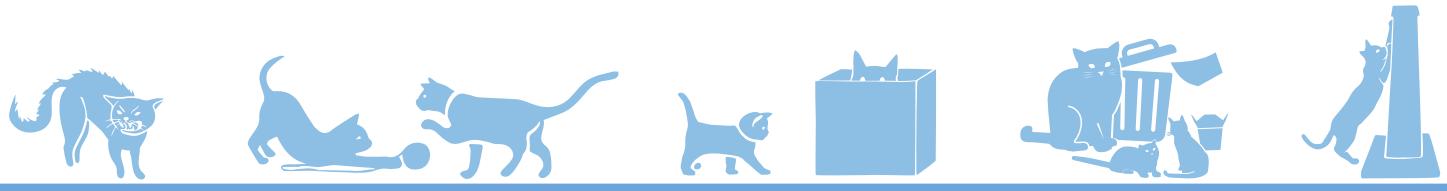

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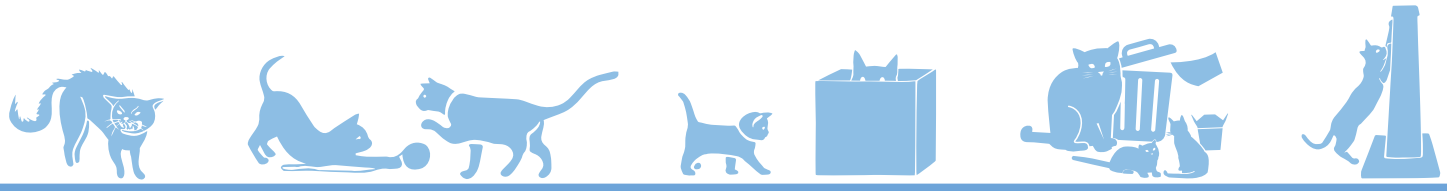

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