2022 Mid-year progress report

Community Cat Program

August 2022
Summary of key results

- Breaking news! In August we reached 1500 cats desexed in the Community Cat Program in Queensland, and as of today (9th Sept), we have desexed 1601 cats.
- More exciting still, are the data coming through showing the marked impact on euthanasia with these high-intensity desexing programs – a 57% to 93% decrease in 18 to 24 months.
- The rapid impact of the program demonstrates that in the future, veterinarians and their staff will no longer have to kill healthy and treatable cats in urban areas for population control. The traditional reactive method has been tried for decades without evidence of a sustained benefit in reducing cat intake. Community Cat Programs offer a better future for cats and the people who care for them.
- A key learning has been that microtargeting to locations of cat-related calls, impounded cats and shelter admissions is most effective for decreasing intake for a given number of cats desexed.
- Based on data to date, without microtargeting, 30 cats/1000 residents in a given area need to be desexed to demonstrate a 30% to 50% decrease in intake within 12-18 months. With microtargeting using doorknocking to identify the cat carer/s in locations stray cats are being impounded from, and to assist them with trapping and transporting cats for desexing, a similar decrease in intake can be achieved with desexing 7-10 cats/1000 residents.
- **Queensland:** Using microtargeting we have achieved a 45% decrease in intake over just 6 months in Redbank Plains (pop 22,000), and 57% decrease in euthanasia by desexing 9 cats/1000 residents in 6 months. Desexing 17 cats/1000 residents without microtargeting did not result in a measurable decrease in intake.
- Rosewood, a typical country town (pop 2800) has demonstrated a 55% decrease in intake in 2021 over baseline, intake 17 months after the CCP program was begun when 33 cats/1000 residents were desexed, by targeting to the town, without microtargeting. Euthanasia was previously 29% of intake, and in 2021 was 4% of intake (numbers euthanased down 94%!!) Rosewood is similar to many country towns in Australia battling with high numbers of stray cats and cats impounded.
- **NSW:** RSPCA NSW achieved a decrease in cat intake of 31% in the 1st year and 46% in the 2nd year compared to the average cat intake over the previous 4 years from the target suburb (Greenacre). This impressive result was obtained by desexing just 8.5 cats/1000 residents over the 2 years using a microtargeted approach within the target suburb. In the first year of the microtargeted program in Canterbury-Bankstown, the estimated savings in sheltering costs was $100,000. Notably cat intake into the shelter increased by 7% from other cities in the 1st year of the program.
- **Victoria:** City of Banyule (pop 130,000). Data from their microtargeted approach is being prepared for publication in the international journal *Animals*. City of Banyule achieved a city-wide decrease in intake of 61% over 3 years and a 74% decrease in euthanasia by microtargeting to locations of cat-related calls.
- **South Australia:** Just over 1000 cats have been desexed since the start of the program in the City of Onkaparinga.
- **Other Research Findings:** In the last 4 months we have been collecting additional data at the time people enrol their cats in the program that is advertised publicly for the 3 target suburbs (excluding cats trapped in the microtargeting program). Of the 202 people enrolling a cat in the advertised desexing clinics since 1st July 2022, 12% indicated they did not consider they were the owner of the cat before hearing about the program. In most cases, these cats appeared on their property or were given to them by friends or family.
- We have desexed cats for 9 people caring for multiple cats (average 14 cats per site, range 6 to 23 cats). Most of these people were helped in the last 6 months and to find these sites, we focused on using microtargeting to locations of impounds or complaints. Of these 129 cats being cared for by 9...
people, the carer took ownership of 33 cats (26%), 63 remained on site being cared for as "restricted matter (49%) and 33 were kittens removed for adoption (26%). Of those cats remaining at the site, 34% became owned and 66% remained as restricted matter.

✓ The results of the **cat ecology research** using tracking collars on a dairy farm with 16 cats, showed that two cats had small home ranges, while another cat travelled a kilometre across the farm (see case report 2). Of relevance, these cats were not fed sufficiently to maintain their daily energy requirements and needed to hunt to survive. They were fed milk twice daily at the dairy, and had access to the dry dog food. The hay shed and farm buildings provided rodents as an additional food. The cats remained on the farm property, allaying fears that after desexing these cats would relocate to bushland.

✓ Camera trap and tracking collar data show that, consistent with the nocturnal nature of cats, most free roaming cats were detected at night on the cameras, and the longer excursions off their home property were mostly at night. This means that for owners and semi-owners, bedtime feeding can be utilised as a low cost and effective solution to keep cats safe inside at night and minimise impact on wildlife. This is achieved by feeding ½ the daily food in morning and ½ when going to bed after closing all doors and windows. To minimize the risk of obesity and increase the effectiveness of bedtime feeding for night-time containment, only feed sufficient food that can be eaten in 10-15 minutes.

✓ **With your support, we are gaining the evidence which demonstrates that a proactive approach to stopping kittens being born is effective and saves shelters and local governments money over the long term.**

This document provides an update of the progress of the Australian Community Cat Program, and a summary of the collective learning from all the sites, which would not have been possible without your support!!

I would like to thank all the partners for their invaluable support of the project, and a special thanks to those partners who have also contributed with hands-on assistance and expert advice to help achieve the results to date. Also, thanks to supporting veterinary clinics and cat lovers. Without the support of all the partners, we could not have achieved the progress so far, and with it has come increased knowledge about humane urban cat management in Australia.

**Jacquie**

Emeritus Professor Jacquie Rand, BVSc (Melb), DVSc (Guelph), MANZCVS
Executive Director & Chief Scientist, Australian Pet Welfare Foundation

Nadia and Olga our fabulous Community Liaison Officers celebrating reaching 1500 cats desexed since beginning the Community Cat Program in the City of Ipswich in August 2020.
1. Overview of the Australian Community Cat Program

- The Australian Pet Welfare Foundation is overseeing implementation of a high-intensity, targeted, cat desexing program with a major research focus that is located in the City of Ipswich, Queensland. This research program is part of the Australian Community Cat Program which incorporates collaborative sites in Victoria (Cities of Banyule, Melbourne, Greater Shepparton), SA (Onkaparinga) and NSW (Canterbury-Bankstown).

- The aim of the Australian Community Cat Program is to demonstrate that a proactive approach to stopping kittens being born is more effective than the current reactive approach employed by shelters and pounds, which consists of admitting large numbers of kittens and poorly socialised adult cats. This leads to unacceptably high euthanasia and subsequent adverse effects on staff. This reactive approach also contributes to high ongoing costs for cat management.

- The Australian Community Cat Program provides the opportunity to solve cat overpopulation and associated problems long-term, and to provide a model for Australia for effective management of urban cats.

- Community Cat Programs are characterised by high-intensity desexing programs for owned, semi-owned and unowned cats in target areas with high cat intake or cat-related calls to council. They incorporate the following elements:

  A. **Desexing of owned cats.** This accounts for most of the cats being desexed, and it will stop kittens being born and becoming strays. People needing this service have an average of 1-2 cats needing to be desexed.

  B. **Desexing of semi-owned cats** being cared for by people who do not consider the cat their property. To date, all of the people caring for 1-2 cats have taken ownership of the cat after desexing through the program, with some unwanted kittens surrendered for desexing and adoption.
C. **Desexing of semi-owned cats living in multi-cat situations.**
   - Based on data from Victoria (Banyule) and Queensland (Ipswich), only about 1 in 25 semi-owners are caring for multiple cats (approx. 1 in 140 people enrolling a cat to be desexed). To date, all have been on private property.
   - In Victoria, all of these semi-owned cats in multi-cat situations have become owned by the carer after desexing.
   - In Queensland (Ipswich site), these cats can be ear-tipped and cared for under the DAF Restricted Matter Research Project Permit, and constitute approximately 3% of cats desexed under the program to date.
   - Of the 129 cats desexed from multi-cat sites in Qld, only 49% remained as restricted matter, 26% were surrendered to RSPCA (all kittens) and 26% became owned.
   - In other states, if cat carers take ownership of the cats, it provides a legal way to manage them, if they are on private property.

   - **Multi-cat situations are no longer referred to as colonies.** It is recommended that this term not be used because of its negative connotations, because these cats are attracted by food and shelter to these locations, rather than being part of structured group, and because the carers view them as individuals with their own personalities rather than a group.

D. **Desexing unowned cats** (those inadvertently getting food from humans such as at a rubbish dump or food scraps from a rubbish bin behind a restaurant). To date we have not identified any unowned cats for desexing, defined as cats as not regularly being intentionally fed by humans. In urban areas, unowned cats appear to be extremely rare, compared to semi-owned cats.

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2. **Progress**

**Key Metrics from Queensland**

**As of August 12, 2022, we have desexed 1546 cats since starting in August 2020**

- The successful pilot program in the City of Ipswich has been completed in Rosewood (pop 2800) with **79 cats/1000 residents desexed** over 24 months, and has demonstrated broad community support.
- In Goodna (pop 11,453) and Redbank Plains (pop 24,166) we desexed 24-26 cats/1000 residents desexed since February 2021.
- **Of the cats desexed, 58% were females,** which prevented at least 4600 kittens being born in the next 12 months.
- **47% of cats desexed were under 6 months of age**
- Following desexing, **95% of cats were owned or became owned,** and only **3% of cats remained semi-owned after desexing** (covered by DAF Restricted Matter Permit) and are being cared for by the carer. These cats were in groups of 6-23 cats. To date, of the 96 cats desexed and returned to the multi-cat locations, the carer took ownership of 34% of the cats, and 66% remained as restricted matter being fed by the carer. Most of these cats required to be trapped, because they were not socialised enough for the carer to get them in a cat carrier.
Most cats (1508) have been desexed through RSPCA Wacol site and 57 cats at Rosewood Veterinary Services and 28 through Greencross Redbank Plains and Ipswich clinics

3. Australian Community Cat Program Partners

The program has the support of 29 national and international partners, and we are very grateful for their support.

- **Brigette Bardot Foundation** is the biggest single cash supporter for the desexing program having contributed $140,000 to desex 3,000 cats. **MSD Animal Health** is the biggest single provider of in-kind support to date, providing F3 vaccines, Bravecto Plus for endo and ectoparasite control for all cats and funding for a research assistant for sample collection for infectious disease testing. **Pets Regardless Foundation** is the biggest single supporter of the vital research component of the Community Cat Program. **RSPCA Qld** is the biggest supporter of community engagement and are funding the two part-time community liaison officers. **Neighborhood Cats USA** is the biggest contributor to knowledge development throughout the project, and we are very grateful for a second donation for greatly needed trap cages for microtargeting to the multi-cat sites.

A big thanks to all our Australian Community Cat Program Partners!!

### Financial or in-kind partners in 2021-2022

- 6 **Australian animal welfare agencies** (Australian Pet Welfare Foundation, Cat Protection Society NSW, Sydney Dog and Cat’s Home, PetRescue, Cheltenham Cat Rescue)
- 3 **veterinary and pet-care companies** (Greencross, MSD Animal Health, Rosewood Veterinary Services)
- 3 **local governments** (City of Banyule, Shepparton City Council, Ipswich City Council)
- 5 **national and international foundations** (Pets Regardless Foundation, Brigitte Bardot Foundation, Bissell Foundation, Waltham Foundation)
- 2 **international partners** (Neighborhood Cats [Bryan Kortis, Suzi Richmond], Dr John Boone)
- 3 **universities** (University of Queensland, Latrobe University, University of NSW)
- 7 **veterinary clinics** (Brimbank Veterinary Clinic (VIC), Chatswood Cat Palace (NSW), Haberfield Veterinary Hospital (NSW), Kensington Vet Clinic (VIC), The Paddington Cat Hospital (NSW), Ringwood Veterinary Clinic (VIC), Wantirna Vet Clinic (VIC))

### Previous financial or in-kind partners

- 3 **Australian animal welfare agencies** (RSPCA SA, AWL Qld, AWL Australia, Maneko Neki)
- 2 **veterinary and pet-care companies** (PETStock, Woolworths Pet Insurance)
- 18 **veterinary clinics** (Anvet Kedron, Aucheflower Veterinary Surgery, Beach Street Veterinary Clinic, Bellarine Veterinary Practice, East Malvern Veterinary Clinic, High Street Veterinary Clinic, Ipswich CBD Veterinary Surgery, Kingsley Veterinary Hospital, Lower Plenty Veterinary Clinic, North Road Veterinary Centre, Northcote Plaza Vet Clinic, Northern Suburbs Veterinary Hospitals, Raceview Veterinary Surgery, Sweet Pea Animal Hospital, The Cat Doctors, Treendale Pet Medical, Village Vet)
- 1 **local government** (City of Melbourne)
4. Project research aims and interim results

Aim 1: Effect of a CCP on intake and euthanasia of cats and kittens in council pounds and animal welfare organisation shelters

A. Queensland results

**Figure 1**: Cat intake in Rosewood (City of Ipswich, Qld) over 17 months (population: 2,800). A 55% decrease in intake within 17 months by desexing 33 cats/1000 residents. All graphs created by Dr Zohre Ahmadabadi.

![Intake from Rosewood (pop 2800) into RSPCA & AWL Q](image)

**Figure 2**: Euthanasia decreased to 4% of intake in 2021 compared to 29% in preceding year, with a 93% decrease in number euthanased compared to the average number from 2017-2019 (33 cats desexed per 1000 residents from August 2020 to Dec 2021).
**Figure 3.** Cat intake per 6 months in Redbank Plains (City of Ipswich, Qld). Desexing 17 cats/1000 residents in the suburb without microtargeting had no measurable impact in the year it occurred, but when combined with microtargeting over 6 months in Jan-Jun, a 45% decrease in intake was recorded. A further 9 cats/1000 residents were desexed in Jan-June 2022.

**Intake**

![Intake Chart]

**Figure 4.** Euthanasia per 6 months in Redbank Plains (City of Ipswich, Qld) decreased by 57% when 26 cats/1000 residents were desexed from Feb 2021-July 22 which included microtargeting using doorknocking to find feeders in locations of cat impoundments.

**Euthanasia**

![Euthanasia Chart]
Key Learnings – as reflected by Nadia and Olga, our fantastically dedicated Community Liaison Officers funded by RSPCA Qld

- Over the past year, after expanding the program to Goodna and Redbank Plains, there has been a reduction in bookings for the desexing clinics run every 2-4 weeks, compared to the response in Rosewood.
  - As of June 30th 2022, in the 23 months since starting the program in Rosewood, 65 cats/1000 residents have been desexed, exceeding our goal of 60 cats/1000 residents over 24 months (as of 1st Sept 2022, 97 cats/1000 residents have been desexed).
  - In contrast, in Redbank Plains and Goodna, only 22 cats/1000 residents were desexed in 17 months, less than the goal of 30 cats/1000 residents per 12 months for the first 2 years.
- Rosewood and Redbank Plains/Goodna are all low socioeconomic compared to the average for Australia, but the two areas are quite different from each other in terms of demographics.
- Rosewood is a small rural town (population of 2,800 residents) with a population older than average for Australia (more retirees), and fewer born overseas. It has a connected and engaged community, including an active Country Women’s Association and Community Centre. The Community Centre has been active promoting our program, and provided assistance by allowing residents to drop cats off in the morning when we have needed to provide transport for several residents’ cats.
- In contrast, Redbank Plains and Goodna are also lower socioeconomic suburbs, but with populations of 24,000 and 10,000 residents respectively, and are highly urbanised suburbs adjacent to the City of Brisbane. Redbank Plains has increased in population by 25% in the last 5 years, including new Australians from Africa, Asia and the Pacific Islands.
- Reaching the target audience of those who are actively feeding stray cats or know the locations of stray cats has been a challenge in Redbank Plains and Goodna.
- In direct response to the lower than hoped number of cats being booked for the desexing days, a number of different methods have been implemented within the Community Cat Program.

Nadia commented “The introduction of a second Community Liaison Officer was the primary change that made a big difference, and that has helped our program grow. Being able to share workload and delegate specific tasks between both Olga and myself has helped us make major changes to the program.”

- One change was to go to mainly monthly desexing clinics to ensure a minimum of 50 cats would be desexed each session (cost break-point), which then made more time available to work in the community to get greater awareness of the program.
- The second change to the program in the last six months was the use of microtargeting for multi-cat desexing situations.
Microtargeting involves using the locations of stray and surrendered cats admitted to the AWLQ and RSPCA shelters to focus door-knocking efforts around those locations.

This has been highly successful, and where multiple cats have originated from, the carer or owner has typically been located using doorknocking within a 5 house radius. AWL are now providing the latest data monthly, which has increased the success rate.

Microtargeting reduces the need for blanket doorknocking and allows better use of resources to target known ‘problem areas’ where cat desexing is needed. Through microtargeting, it reduces workloads because the location of multi-cat residences can be quickly identified.

Microtargeting also increases the numbers of cats desexed from the locations most likely to result in cat-related complaints, cat impoundments and long sheltering/fostering times, because these predominantly outdoor cats tend to be more timid and shy.

Microtargeting allows more people to be reached who need assistance with trapping cats through delivering cat traps to residents, educating the community on successful trapping techniques, as well as offering real-time support on these practices.

Over the last 6 months, the community liaison team have been actively microtargeting stray cats in the suburbs of Rosewood, Redbank Plains and Goodna. At nearly all multi-cat sites, the carer has taken ownership of some of the cats. The team was able to desex 45 restricted matter cats.

Importantly, in the first 12 months of the program - where there was no microtargeting and less than half the target number of cats desexed (12 cats/1000 residents) - there was no decrease in cat admissions from Redbank Plains and Goodna to RSPCA and AWL shelters (or cats euthanased). In the last 6 months, by adding microtargeting, a 45% decrease in intake and 57% decrease in euthanasia has been achieved, and 26 cats/1000 residents desexed over 17 months.

Olga’s insights were -

- “Understanding, listening and being compassionate towards residents was key in building trust. Residents sometimes confused our team with other agencies and refused to speak to us, afraid of getting into trouble for having too many cats.
- “No two situations were the same, although the team did find many of the residents who were overwhelmed multiple stray cat feeders began by feeding just one cat and then became overwhelmed with multiple cats”
- “Working with these residents has been challenging, however being aware of their lifestyles, values and behaviours has assisted in connecting with them and given a deeper understanding of what those cats mean to them as companions.”
Methods of communication

- Different strategies and communication channels have been used to reach the community, including letterbox flyers, engaging with community centres, employment agencies, support groups and social workers, Facebook advertising/posts, notice boards in shopping centres, childcare centres, local council offices and retirement villages, attending local community events and door knocking.
  - Different channels were used to reach the varied audiences within the community such as newsletter/notice boards or support groups for elderly residents, and employment agencies and support workers for disadvantaged/low-income residents.
- Increasing awareness of the program also occurred by handing out flyers to local shops and at medical practices, and spending more time to engage residents through social media.
- Facebook was used to reach the community on a larger scale by targeting specific suburban groups, community pages and animal rescue groups. Facebook comments assisted the team in identifying streets where stray/semi owned cats were living.
  - Regular moderation was required as posts sometimes generated complaints or concerns both positive and negative. Some negative comments or misleading statements were made by residents without a good understanding of the program and these were corrected by the team where relevant.

We are also planning to build a team of volunteers to assist with certain tasks i.e. door-knocking, setting traps or collecting traps with cats caught for desexing. Some of these tasks are time-critical, and having a list of people to contact in the area that are willing to volunteer their time to assist would be very valuable.

Disappointingly, animal management officers (AMOs) trapped a number of cats without liaising with any of the CCP partners in the program, including AWLQ. We are hopeful that going forward, as a result of regular monthly meetings, there will be greater collaboration and involvement of AMOs in the CCP program, to prevent cats being impounded. It is clear that microtargeting to stray cat impoundments is highly effective, but would be even more effective if it could be implemented at the point of a cat-related call to council (as in the city of Banyule), rather than after impoundment.

Below is a story highlighting the value of the microtargeting approach. Our partner in the Community Cat Program, AWL Qld, have the contract to operate the City of Ipswich Animal Facility. They have recruited volunteers for their Cat Assistance Program (CAT) to focus on the microtargeting approach, and Dr Joy Verrinder is providing hands-on assistance and oversight on the program. The very close communication between the AWL’s CAT team and our Community Liaison Officers Nadia and Olga, and the AWPF director of the CCP program, Dr Jacquie Rand are key features.

Joyce’s story July – August 2022

Scenario
Terri recently moved into a rental property and was setting up a leather handbag business in the open carport at the back of the property. Quickly she was aware that there were approximately 16 cats roaming in the yard, getting under the house, and climbing into the roof of the house. She was concerned about cats spraying urine on her leather-work, defaecating in the yard, odour associated with the soiling, and had concerns for wildlife. She
had spoken with one neighbour, but had not been able to find out where the cats were coming from.

Initial traditional reactive approach
Terri put in a cat-related complaint to the council and started trapping cats.

Proactive community engagement approach
Using the location of the trapped cats as a starting point, the AWLQ Cat Assistance Team visited Terri to investigate where the cats were coming from. Using knowledge gained from the CCP program Community Liaison Officers, they begun doorknocking, knowing that the cat feeder was likely located within a 5 house radius. They quickly found the cats and kittens lived next door with 84 year old Joyce, who had taken in a mother cat who had subsequently had 6 litters. Joyce fed the cats regularly and knew them all. A couple of cats would come inside and sit on the couch with her.

Once Terri met Joyce, she realised she cared deeply about these cats. With the knowledge that the AWLQ Cat Assistance Team was committed to helping solve the issue of roaming cats, Terri agreed to assist with trapping, but to call the AWLQ Cat Assistance Team instead of taking them to the pound. Trapped cats were then taken next door to see if they were Joyce’s cats, and if so, were taken to the vet clinic immediately for desexing and microchipping and return to Joyce.

One adult cat, Hoppy, which Joyce had from a tiny kitten, was born with a deformed leg with no foot. AWLQ vets examined and advised leg needed to be amputated, and held Hoppy at the clinic until he was sufficiently recovered as he would be difficult to catch again for pain relief, antibiotics and follow up on his leg.

Six adult cats were desexed and microchipped and returned to Joyce, and one trap-shy mother cat is still to be trapped for desexing and return to Joyce. One of the young cats that had been impounded before the program started, was fostered and socialised and is being rehomed, and 4-5 kittens are being rehomed.

Three of the trapped cats were not Joyce’s and were impounded and transferred to AWLQ. One black and white cat who staff have been unable to socialise as particularly reclusive, has been rehomed to a local timber workshop as a Working Cat to manage their rats and mice. Another big black cat was friendly and is being rehomed, and another being socialised.

To provide a long-term solution to Terri’s concerns, the AWLQ Cat Assistance Team staff and volunteers built a large cat-safe fence around Joyce’s house to prevent the cats wandering.
As a great example of community engagement, Alicia, a wonderful member of the RAAF who had previously volunteered at the AWLQ Rehoming Centre, came to help the Cat Assistance Team design and work out materials needed.

She recruited 6 other members of the RAAF to come one afternoon to build the largest back section of the fence, and Cat Team volunteers finished the front and side fencing over another 3 days.

Bunnings donated much of the materials and some tools for the project and AWLQ paid for the rest of the materials and tools. Kevin, a CAT volunteer donated doors he had found free through Gumtree.

Carolyn, who had previously been contacted by the Cat Assistance Team as she had a nuisance issue with cats in a different suburb, offered to come with her van to pick up and deliver the materials to Joyce’s house. She also provided use of her tools, and helped with the building of the fence on 2 days.

Terri is happy as the issues with the cats are now largely resolved. Joyce misses some of the cats, but is very happy that the situation is under control and the kittens have gone. The CAT team have still been refining the make-shift gate/door in the fence for ease of entry and exit by Joyce, and to ensure that all the escape routes are closed off.

Although Terri previously had no contact with her neighbour, she has now invited Joyce to have a cup of tea with her.

*Traditional approach*

Sites like these typically have a history over many years of cat-related complaints, followed by trapping and impounding cats, with many timid and fearful cats euthanased. However,
insufficient cats are usually trapped to resolve the issues. Alternatively, AMOs will seize most of the cats from the cat carer, which is very traumatising for the carer but rarely solves the issue because undesexed cats remain or new stray cats arrive.

**In considering a traditional reactive approach or a proactive community engagement approach, these are the questions to consider:**

- What would *most* of the community want?
- What is most aligned with a One Welfare approach? One Welfare aims to balance and optimise the wellbeing of animals, people and their physical and social environment
- What is best for job satisfaction of AMOs and pound & shelter staff?
- What would you want if Joyce was your mother/grandmother?
- Which approach would you sleep most satisfied at night?
- Which provides a long-term solution?

**Case Study 2**

Across Australia, farmers cannot legally control the numbers of cats around their farm buildings by desexing, without taking ownership of them and paying registration fees (most states) and an excess cat permit. However, they can legally shoot, poison or leghold trap them, and drown the kittens.

Cats around farm buildings are considered by farmers as valuable working cats to control rodents (see Steve’s testimonial below), but their numbers can become large, and their welfare impacted with many kittens dying before 6 months of age from disease or trauma, including being killed by tom cats. The average number of cats living in and around farm buildings is 26 (Legge 2017). Although these cats are typically living around humans, and very often being intentionally fed, they are considered feral under the law. This classification is not consistent with the definition of feral cats adopted by the Commonwealth of Australia in the Threat Abatement Plan for Predation by Feral Cats (2015), or in the RSPCA Best Practice Domestic Cat Management (2018) publication. Feral cats are those that live and reproduce in the wildlife without assistance from humans.

There is an urgent need for the Commonwealth and States to define cats based on how and where they live, so domestic cats on farms can be managed humanely and effectively by desexing. Provision should be made that they are considered working cats, and farmers exempted from paying registration or excess cat permit fees.

**INTERVIEW WITH Steve Blanch from Blanch’s Dairy Farm, Rosewood AUGUST 2022**

*What prompted you to desex the cats you were caring for?*

Mainly the number of cats was getting out of control. There was no way we could deal with the females that were continually having kittens. It was a matter of stemming the flow.

*How did desexing the cats help you specifically?*

In a number of ways, the first way stopped the multitude of more kittens being born. It has quietened the cats down also and made them more friendly around the dairy, plus they are not fighting all the time.
How do you think free desexing benefits the community on the whole?
It’s great because we would not have been able to afford desexing all those cats, after having gone through droughts and floods. On the whole, free desexing is amazing.

Why would you recommend this program to be available to other farmers and why?
Because most farmers are a little like us, where we spend our life trying to keep ourselves afloat as a dairy farm, without worrying about a cat community. It’s something that other farmers would be interested in.

What’s the most important thing that people need to know about the program as it relates to farmers?
The fact that there were awesome staff who came to trap and collect the cats for desexing and that there was nothing that we had to do other than focus on running our dairy farm.

How did you originally get cats?
We bought a couple of cats to reduce our rodent problem, and there was already a couple of strays, which we hadn’t really seen until we got the two new cats. It was only when we brought in the two new cats on site that they all started breeding. There were cats, and more cats, and more cats.

What do the cats mean to you?
They’re great now [that they’ve been desexed]. Without them I know that our dairy and our sheds and the hay shed and our grain supply would be full of mouse and rat droppings. We don’t see any rats or rodents at all any more. The cats have become friendly, they wait in the dairy for us to give them a pat and even a little cuddle.

Clearly the law needs changing to permit effective and humane control of farmers’ cats, and balance and optimise the wellbeing of animals, people and their physical and social environment.
B. Victoria results
A manuscript is being prepared for submission to the *Animals* journal (first author J. Cotterell), documenting the effect of a desexing program. The program was microtargeted to locations of cat-related calls within 3 target suburbs (population of 15,000) that contributed the highest calls related to found and nuisance cats. It was combined with a less intensive microtargeting over the whole city (population 130,000).

- After 4 years of the **free, high intensity, micro-targeted desexing program** for owned and semi-owned cats, in 2020/21 the City of Banyule (pop 130,000) **imponund only 1 cat/1000 residents** compared to the Victorian average of 7 cats/1000 residents and **euthanased just 25 cats (0.2 cats/1000 residents)** compared to the Victorian average of 2 cats/1000.

**Figure 5.** Desexing 3-5 cats/1000 residents each year in the three target suburbs and 2 cats/1000 residents over the whole city (5-7 cats/1000 residents) resulted in a 61% decline in impoundments and 74% decrease in euthanasia for the whole of the city of Banyule over 3 years.

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<td>24</td>
<td></td>
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<tr>
<td>VIC</td>
<td>46,655</td>
<td></td>
<td>2</td>
<td></td>
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</tbody>
</table>

C. South Australian results
The targeted desexing program in the City of the Onkaparinga has achieved just over 1000 cats desexed, before having to be suspended because of a critical shortage of veterinarians. The plan is to restart as soon as veterinary clinic capacity increases.

The shortage of veterinary staff is a major problem across Australia and will impact the roll-out of high intensity desexing programs to reduce shelter intake and euthanasia. The results from Victoria, NSW and now Queensland show that microtargeting to locations of cat-related complaints or admissions is more effective in reducing shelter intake for a given number of cats desexed per 1000 residents. Based on Queensland data, targeting to a suburb without microtargeting requires 30 cats/1000 residents to be desexed to decrease intake and euthanasia. However, when microtargeting is employed, this decreases to 10 cats/1000 residents or less.
D. NSW results

Figure 6. Cat and kitten intake into the RSPCA NSW Yagoona shelter from the Greenacre suburb. Intake decreased by 31% in the first year, and 46% in the second year compared to the average intake over the four years prior to desexing. 8.2 cats/1000 residents were desexed over 2 years in the suburb with 163 cats were desexed in first year (6.4 cat1000) and 47 cats in second year (2 cats/1000). The greatest impact is on kitten intake. Savings in sheltering costs were calculated as over $100,000 in the first year alone whereas intake from other local government areas increased by 7% in the same time.

Very importantly, RSPCA NSW has engaged with other councils in the last couple of months to start free cat desexing programs through the Keeping Cats Safe at Home project:

1. Weddin. Open to the whole LGA (population 3,664). Started 2nd June, has so far desexed and microchipped 62 cats
2. Walgett. Open to the whole LGA (population 6,107). Started 26th May, has so far desexed and microchipped 50 cats
3. Shoalhaven. Open to residents of postcode 2541 (population 26,872). Started 28th July, has so far desexed and microchipped 9 cats
4. Kyogle. Open to residents of the whole LGA (population 8,940). Started 20th July, has so far desexed and microchipped 5 cats
5. Byron. Open to residents of the whole LGA (population 36,077). Started 25th July, has so far desexed and microchipped 6 cats

Campbelltown, Parramatta, Blue Mountains, and Tweed Shire programs will hopefully start over the next couple of months.

Comment from Dr Gemma Ma “The biggest learning so far (and it’s only early days) is how important council rangers are to the success of cat desexing initiatives aimed at reducing cat overpopulation and addressing populations of semi-owned/unowned cats. In the council areas where the council rangers are driving the programs (Walgett, Weddin) it is much easier to strategically target to the cats we are after; the council rangers really know their communities and where the problems are.”
RSVPCA NSW have also just launched their *Keeping Cats Safe at Home* website, and have just concluded a successful social media campaign (Long Live the Cat!) on Facebook/Instagram/TikTok. The website includes a series of downloadable information handouts for cat owners.

**Aim 2: Community attitudes to management of owned and unowned cats**

The survey of residents in the three test suburbs to determine Cat Ownership and Semi-Ownership Characteristics and Community Preferences for Urban Cat Management – Dr Jade Norris has been accepted as an MPhil student at UQ, and will undertake the write-up of this project as part of her thesis. An epidemiologist has been engaged and funded through a Waltham Foundation grant, and data analysis has begun.

Data collection for survey of people enrolling a cat in the desexing program is ongoing.

**Aim 3: Ecology research – Keeping cats and wildlife safe: documenting changes in free-roaming cat densities over time in target suburbs**

**Wildlife monitoring camera results**

The ecology part of the research program is continuing to collect cat data on presence of unique cats and cat appearances, with the aim of determining if changes occur over time associated with the CCP. Baseline cat activity was measured across the three suburbs using data from Winter 2020 and Summer 2021 but is not fully analysed because of the huge amount of images (1.3 million) to be cleaned and identified (ID). We have been very fortunate to get funding to assist with this from two donors.

![Figure 7. One of 50 camera traps used to detect wildlife and cats.](image_url)

The camera monitoring has just finished round 5 of the three test suburbs, Rosewood, Goodna and Redbank Plains. The project is monitoring cats and wildlife twice a year for a two-week period with 50 cameras placed across each suburb. This last round had excellent community engagement, with multiple new houses coming on board, and no cameras stolen though the round - which is a first.

We are working through the analysis of the data, and now have a dedicated team of volunteers and a new research coordinator for the project, Ashleah Williams who is taking on management of the project.
The camera trap monitoring project started in winter of 2020, and as we have progressed through the project there has been some important learnings from using camera traps in urban areas. Once the data are collected, we have to clean the data files to remove images of false triggers eg. leaf blowing in wind, and then identify (ID) the cats and wildlife in the images ready for statistical analysis.

From Round 1, 489,015 raw images were obtained and for Round 2, a whopping 706,440 images. Cleaning and ID’g images for these two rounds will take nearly 900 hours! (see table below). Round 3 was started in winter 2021, where the camera deployment method was improved to reduce the amount of blank images and increase the image processing efficiency. Round 4 was started in summer 2022, where the deployment period was reduced from 3 weeks to 2 weeks, as the extra week did not provide significantly more new unique cats. This change further reduced the number of blank images and improved processing efficiency. Round 5 was deployed in winter 2022, and is now complete. To date, the work that needs to be completed includes cleaning and ID’ing rounds 1, 2, 4, and 5. Thank you to donors who are assisting with funding this process. The results will be important in helping keep pets and wildlife safe.

Based on previous processing speeds, we estimate the following:

<table>
<thead>
<tr>
<th>Round</th>
<th>Clean (hr)</th>
<th>ID (hr)</th>
<th>Total (hr)</th>
<th>Weeks (based on volunteer 16hrs per week of work)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1</td>
<td>57.1</td>
<td>304.4</td>
<td>361.4</td>
<td>40</td>
</tr>
<tr>
<td>Round 2</td>
<td>82.4</td>
<td>441.5</td>
<td>523.9</td>
<td>58</td>
</tr>
<tr>
<td>Round 3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Round 4</td>
<td>7.5</td>
<td>40.4</td>
<td>47.9</td>
<td>5.5</td>
</tr>
<tr>
<td>Round 5</td>
<td>6.2</td>
<td>33.0</td>
<td>39.2</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Figure 8. Some of the images of cats, wildlife and other wildlife species captured by the motion-detecting wildlife cameras being used to estimate free-roaming cat density in Rosewood, Goodna and Redbank Plains From top Butcher bird investigating lure; a fox and a kitten and cat playing)
Aim 4: Documenting movement of free-roaming restricted matter cats

On the cat tracking collar front, we have now trialled a number of the Ceres tags and recently bought some wildlife ones which send data every hour to the satellite compared to the ones we have been using that only transmit the position of the cat every 4 to 6 hours (Figure 9). We collared three cats at a dairy farm in Rosewood, and had great success in tracking them over 3 months. Interestingly, two of the cats were observed to have very small home ranges of a few hundred meters only. The third cat had a much larger home range, travelling at least a kilometre, multiple times a week, but remained on the farm. More research is required to investigate the differences in home ranges between individuals. Importantly, these cats are not fed sufficient to maintain their energy requirements for survival and therefore have to hunt. They are fed milk twice daily from the dairy and have access to dry dog food, with the expectation that they will assist in control of rats and mice in the hay shed.

The data from the previous Sirtrack/Lotek collars and the new real-time Ceres tags show that cats are most active at night and travel the longest distances at night. The implications for this are huge. One of the main reported concerns by residents about roaming cats is wildlife predation. APWF is actively encouraging bed-time feeding to ensure cats are kept indoors overnight. The camera trap and tracking collar data confirm the importance of this method in reducing wildlife predation and keeping cats safer. If cats are kept inside overnight during their most active periods, the chances of them encountering wildlife and engaging in nuisance or risky behaviours such as crossing roads, will be reduced.
**Figure 9:** Activity of 3 cats at Blanch dairy in Rosewood – Coloured squares are individual cats at that time point. Most of the time is spent at the dairy and hay shed, and occasional excursions out to the sloping road to the right and the creek to the left about 500 m from the dairy (the real-time video is much more interesting than the photos).
Aim 5: Infectious disease testing

**Determining the incidence of disease zoonotic diseases in pet cats, with and without access to outdoors, and semi-owned and unowned cats**

Sample collection for the infectious disease component began in 3rd quarter 2021 with collections made by School of Veterinary Science (SVS) staff and volunteers. MSD Animal Health has provided funding via APWF for a research assistant to undertake sample collection and processing for storage. Academics from SVS are assisting with sample storage and analysis. DNA extraction of all blood samples collected to date (serum and whole blood) is almost complete, and reproductive tract DNA extraction for Q fever will begin soon. To date, 40 serum samples were negative for Q fever.
5. Presentations and advocacy based on initial results of the CCPs

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Brimbank City Council, Victoria – Animal Management Plan public consultation submission*</td>
<td>February</td>
</tr>
<tr>
<td>The City of Kalamunda, Western Australia - Local Law public consultation submission*</td>
<td>February</td>
</tr>
<tr>
<td>ACT State Government – submission against cat confinement local law*</td>
<td>March</td>
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<tr>
<td>Fremantle, WA - Cat Law submission*</td>
<td>April</td>
</tr>
<tr>
<td>Manningham, Victoria - Animal Management Plan public consultation submission*</td>
<td>April</td>
</tr>
<tr>
<td>Bayside City Council, Victoria - Animal Management Plan public consultation submission*</td>
<td>April</td>
</tr>
<tr>
<td>Biosecurity Symposium – CCP poster presentation to delegates</td>
<td>May</td>
</tr>
<tr>
<td>Yarra Ranges, Victoria - Animal Management Plan public consultation submission*</td>
<td>May</td>
</tr>
<tr>
<td>Office of Local Government, NSW Review of Rehoming – presentation, submissions, feedback and discussions</td>
<td>May to July</td>
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<tr>
<td>Campbelltown Council, South Australia - containment bylaw public consultation submission*</td>
<td>June</td>
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<tr>
<td>Horsham Council, Victoria - Animal Management Plan public consultation submission*</td>
<td>June</td>
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<tr>
<td>Veterinary Science Week (Aus) – 2 CCP presentations to delegates</td>
<td>June</td>
</tr>
<tr>
<td>Victorian Domestic Cat Management Working Group – 3 CCP presentations</td>
<td>June</td>
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<tr>
<td>Queensland Animal Care and Protection Amendment Bill 2022 submission</td>
<td>June</td>
</tr>
<tr>
<td>Australian Veterinary Association – Submissions regarding Cat Policy</td>
<td>Dec-21 – June-22</td>
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<tr>
<td>Tasmania Cat Management Coordinator - CCP presentation</td>
<td>July</td>
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<tr>
<td>Campbelltown Council, South Australia - Animal Management Plan public consultation submission*</td>
<td>August</td>
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<tr>
<td>Office of Local Government NSW, Pet Registry review - Meeting and submission</td>
<td>August</td>
</tr>
<tr>
<td>Hornsby Shire Council, NSW – cat management submission, presentation and subsequent media interviews*</td>
<td>August</td>
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<tr>
<td>Australian Institute of Animal Management – Webinar presentation re CCP</td>
<td>August</td>
</tr>
<tr>
<td>National Domestic Cat Management Working Group</td>
<td>2 meetings &amp; presentation on CCP</td>
</tr>
<tr>
<td>Animal Justice Party NSW – CCP presentation</td>
<td>July</td>
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</table>

* Advocated for Community Cat Programs including focus on converting semi-owners to owners and advocated against mandated containment because it criminalises cat ownership for disadvantaged families and because it is a barrier to semi-owners taking ownership of the cat they are caring for.
6. Research Timetable

- Data are being collected in multiple fields of research over the duration of the project to evaluate and report on its impact. This is being undertaken by a diverse and expert multidisciplinary international team of researchers, including veterinarians, ecologists, economists, shelter experts, psychologists, infectious disease experts, animal behaviour, welfare and ethics, and biosecurity representatives.

Summary of the data collection and analysis milestones is below.

<table>
<thead>
<tr>
<th>Timing</th>
<th>Milestone</th>
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<tbody>
<tr>
<td><strong>2022</strong></td>
<td></td>
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<tr>
<td>February</td>
<td>● Year 1 impact results for numbers of cats impounded, reclaimed and euthanased Rosewood, Goodna and Redbank Plains</td>
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<tr>
<td>July 2022</td>
<td>● Data collection finalised from community surveys (Rosewood, Goodna and Redbank Plains)</td>
</tr>
<tr>
<td>December</td>
<td>● Finalised analysis and manuscript on community survey of priorities for cat management to demonstrate the general public want cats managed by humane population control via sterilization and not by killing. Dr Jade Norris is writing this up as part of her MPhil.</td>
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<tr>
<td><strong>2023</strong></td>
<td></td>
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<tr>
<td>December</td>
<td>● Submission for publication in an international journal of survey data collected from people in Victoria and Queensland enrolling a cat in the desexing program which demonstrates cost is the overwhelming barrier to sterilization of cats.</td>
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<td></td>
<td>● Interim analysis of data from free-roaming density measurements. The cat density measurements and community survey data are very important to convince the state and local governments of the effectiveness of community cat programs to decrease free-roaming cat numbers.</td>
</tr>
<tr>
<td></td>
<td>● Compelling data collected and analysed to support amendments to the definition of feral cats in Qld Biosecurity Act, and amendment of the Queensland Animal Care and Protection Act 2001 (and similar acts in other states) to allow desexing of cats which remain semi-owned or unowned in urban areas.</td>
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<tr>
<td><strong>2024</strong></td>
<td></td>
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<tr>
<td>December (- January 2025)</td>
<td>● Finalisation of research involving change in cat free-roaming density over time.</td>
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<td>● Shelter and impound statistics for cat admissions and outcomes including returned to owner, rehomed and euthanased.</td>
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<td>● Social science research of surveys investigating changes in cat caring behaviours of cat owners/carers enrolling cats in the program are finalised and submitted for publication.</td>
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<tr>
<td></td>
<td>● Infectious disease prevalence data analysed for owned, semi-owned and unowned cats.</td>
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<tr>
<td></td>
<td>● Approximately 6 papers published in international journals between 2022 and 2027 from data gathered from the project.</td>
</tr>
</tbody>
</table>
7. Staff biographies

Nathan Wishart
Nathan is the Business Support Officer at APWF whose primary role is facilitating customer service while supporting the wider team by adapting and overcoming administrative, technical or scientific challenges that pop up. Nathan is currently studying a Bachelor of Psychological Science at Swinburne University with an end-goal to pursue a career in behavioural research. This sits closely with his interest in the research that APWF is currently undertaking to reduce negative mental health impact in the animal industry. In his free-time he is an avid tinkerer, musician and video gamer and spends lots of time hanging out and training his best mate Molly, the rescued Australian Cattle-dog cross Border Collie.

Olga Trotman
Olga joined APWF as a Community Liaison Officer earlier this year. Following her passion for animals, Olga started out as a volunteer at the RSPCA Domestic Animal Hospital. Incorporating her extensive experience in customer service, combined with her Russian background, Olga can better understand and communicate with people from various backgrounds and share her experiences. Olga has also completed a Diploma and Cert IV in Justice Administration and a Bachelor degree in Criminology and Criminal Justice. As well as being a foster parent to cats, Olga and her family own 2 budgies, quails and a rescue cat, Bear.

The compelling results in this report reflect the fantastic staff and volunteers working on the project, and all the support from our Partners, without whom we could not achieve these results. Thank you everyone!!!

Jacquie