



**Humane
World for
Animals™**

Formerly called the
Humane Society of the United States



Managing Community Cats

A guide for municipal leaders



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Why this guide is in your hands

This guide examines the role of community cats (sometimes called free-roaming cats) in cat overpopulation and the concerns shared by officials, constituents and animal care and control agencies about these animals. It provides recommendations for strategies to manage community cat populations and effectively reduce their populations in the long term.

Few animal-related issues facing local leaders are potentially more difficult and time-consuming than those involving unowned, free-roaming cats in the community. Complaints or concerns regarding cats often represent a disproportionate share of animal-related calls to elected officials and local animal care and control agencies. Dissent often arises among neighbors; between cat advocates and wildlife advocates; and among animal care and control leaders, local government leaders, and their constituents.

Often excluded from animal care and control budgets and mandates, community cats might be managed by field officers who have neither the training to handle them nor a holding space to house them. Whether by choice or regulation, many animal care agencies deal with community cats only when there is a specific nuisance complaint about them or concern for their welfare.

In past decades, many local governments approached community cat populations using solutions like trap and remove, which usually involves killing the trapped cats. Those conventional approaches are now widely recognized as mostly ineffective and unable to address the larger community animal issue. Research

“*The community cat “program creates a healthy, stable community cat population. It promotes public health in our neighborhoods by reducing the number of unvaccinated, unsterilized cats.”*

—Jeff Bennett, former Deputy Mayor of Community Development, Indianapolis, IN

“

A well-managed TNR program will provide both cost control as well as long-term, community cat population control for a municipality. In Somerdale, we recognize this value and the positive impact it will have on our animal and residential population. We also recognize that this proactive approach is the most humane and effective means by which we can care for and manage our community cat population.”

—Gary J. Passanante, Mayor, Borough of Somerdale, NJ

(Boone et al., 2019) reveals that this non-targeted, low-intensity response to a population that is reproducing at high rates doesn't help to reduce cat populations and nuisances in our communities, improve cat welfare, further public health and safety or mitigate the real impact of cats on wildlife.

Instead, sterilization and vaccination programs—such as trap-neuter-return (TNR)—are being implemented to manage cat populations in communities across the country. Well-managed TNR programs offer a humane and proven way to resolve conflicts, reduce population and prevent disease outbreaks by including vaccinations against rabies and other potential diseases. This guide provides you with the tools and information you need to implement a well-planned and effective community cat management program.

If after reading this guide, you would like assistance in updating your animal ordinance to allow for trap-neuter-return and humane community cat management, please reach out to companionanimals@humaneworld.org.

About Trap-Neuter-Return (TNR)

1. Trap

Community cats are captured with a humane live trap. This is usually done by or with the assistance of the cats' caretakers. Ideally all the cats in the colony are trapped within a short timeframe.



2. Neuter

The cats are then transported in their traps to a veterinary clinic. There the cats are spayed (females) or neutered (males) and vaccinated against rabies by licensed veterinarians. They may also receive other veterinary care as needed. While under anesthesia, the tip of one of the cat's ears is removed. This allows the cat to be identified at a distance as having been sterilized and vaccinated, preventing the cat from being needlessly re-admitted to a TNR program.

3. Return

Cats recover quickly from surgery and can be returned the next day to the same location where they started out. Colony caretakers and other residents continue to provide food, water and shelter to the cats and monitor the colony for any issues that arise or new cats who show up.







Cats in our communities

Cats are a popular pet in the United States. Between 26 and 35% of households own cats, with an average of 1.8 cats per home. That's a total of 58 to 76 million cats (APPA 2024, AVMA 2022). The majority—approximately 85%—of owned cats have been spayed or neutered, but they may have had one or more litters—intended or accidental—before being sterilized (APPA, 2024). In underserved communities, rates of sterilization in owned cats tend to be much lower, with the cost of surgery and transportation to the clinic being the biggest barriers to accessing desired veterinary services.

Approximately 69% of owned cats are kept indoors, with the number increasing to 76% who are kept indoors at night. This trend has been on the rise, up from approximately 20% in the 1970s (APPA, 2023). Yet that still leaves a sizable population of free-roaming owned cats that needs to be addressed while managing unowned community cats, particularly if the cats allowed to wander are not spayed or neutered.

Community cats

“Community cats” are cats who live outdoors in a community and are cared for by one or more people who feed them and who may provide some form of shelter and/or medical care when needed. These caretakers don't usually consider the cats to be owned, or they may consider the cats to be loosely owned but different from

cats they keep in their home. Community cats may live alone or in pairs or congregate in larger colonies that grow quickly if the cats are not spayed and neutered.

While these cats are often referred to as “feral”—which means having escaped from domestication and returned to a wild state—the majority rely on humans for support. Their behavior may range from fearful and unsocialized to friendly and open to human interaction. Many of these cats, especially the social ones, are considered to be “at home” by residents in the area they live.

Estimates vary greatly for the number of community cats in the United States, ranging all the way from 10 million to 90 million (Loyd & DeVore, 2010). The limited evidence available indicates that the actual number may be in the 30–40 million range. Cat colonies are not dispersed evenly across the landscape. Human demographics, types of land usage, climate, presence of predators and availability of resources all affect the size of a community's cat population. Estimates vary greatly on both a national and local level, providing only a loose number to use as a starting point for crafting effective interventions in your own community. Experts differ on recommended calculations for determining the number of outdoor cats in a community, with a range of formulas from human population divided by six (Levy & Crawford, 2004) to human population divided by 15 (Kortis, 2014). Remember, this estimate is exactly that—an estimate.

It's important to remember that these cats are already living in your community. Their origins may be varied; some may have once been owned cats, while others may be the offspring of generations of feral cats. Colonies form on their own—they are not “established” by the people caring for them.

The real problem is that so few community cats are spayed or neutered, and that they will continue to produce generations of outdoor cats if we do not intervene. Unsterilized community cats contribute about 80% of the kittens born each year and are the most significant source of cat overpopulation (Levy & Crawford, 2004). With an average pregnancy rate of about one litter per year and an average litter size of four kittens, a single cat can quickly become a potentially overwhelming situation. For this reason, large-scale and targeted reproductive control of community cats is critical to reduce cat populations in your community.

“

When cat populations are present, the choice is not between having cats or not having cats. The choice is between having a managed community cat population, or an unmanaged one.”

—Bryan Kortis, National Programs Director,
Neighborhood Cats



Meet the players

Community cat management is most effective when a multi-faceted approach is applied. Knowing the stakeholders in your community and working cooperatively with them to find common ground will lead to better outcomes and a more cohesive community cat management plan.

Government agencies

Animal care and control agencies

Animal control agencies enforce laws aimed at managing animals and protecting public health and safety. They also respond to calls from community residents. For people concerned about the welfare of outdoor cats or those who find them a nuisance, animal care and control agencies are often the first points of contact. Most animal control agencies don't have the capacity to trap free-roaming cats, instead prioritizing calls for sick or injured animals or animals posing an immediate threat to the public.

The National Animal Care and Control Association discourages attempting to manage community cats through a trap and remove strategy. The organization's position statement on animal control intake of free-roaming cats states "that indiscriminate pick up or admission of healthy, free-roaming cats, regardless of temperament, for any purpose other than TNR/SNR, fails to serve commonly held goals of community animal management and protection programs and, as such, is a misuse of time and public funds and should be avoided." (NACA, 2021).

“Collectively, our goal is to eliminate the free-roaming cat population and decrease the spread of rabies in our communities. The only approach that has proven effective is conducting large-scale, targeted sterilization and vaccination programs that result in healthier cats and healthier communities.”

—Dr. Karyl Rattay, former Director, Delaware Division of Public Health

Public health agencies

Outdoor cats can present valid public health concerns, with rabies at the top of the list (due solely to the seriousness of the disease, not any particular prevalence in cats). Public health officials seek a reduction in the number of community cats as fewer cats means less opportunity for disease transmission. Managing community cat colonies allows those cats to be monitored for illness, and vaccinations given as part of a TNR program help provide herd immunity in the area, protecting both cats and humans alike.

Animal welfare organizations

Animal shelters and humane societies

Around 2.5 billion public and private dollars are spent each year

“

After we implemented a shelter, neuter, return (return-to-field) program in 2010, it changed the way we do business and it has improved our ability to do more to help all animals. It convinced us that more was possible. Last year alone, there were 3,000 fewer cats and kittens in our shelter. As a result, the capacity and savings that we have enjoyed have allowed us to do more to help the cats in our care and it has even benefitted the dogs because those resources don't have to be spent on more cats.”

—Jon Cicirelli, former director, Animal Care and Services, San Jose, CA

operating animal shelters and humane societies across the country (Rowan, 2018). While some municipalities operate their own shelters, others contract with private shelters to house animals and often provide animal control and law enforcement. The primary role of most private animal shelters is the housing and adoption of homeless cats and dogs, but they may also care for injured or sick wildlife, serve as a resource for pet owners in the community and advocate for the well-being of cats and dogs throughout the community—including community cats.

An estimated 3.3 million cats enter U.S. animal shelters annually, and just over 330,000 are euthanized (Shelter Animals Count, 2024)—a tiny fraction of the total number of cats in a given community. One should not expect these efforts to have an impact on outdoor cat populations, their welfare, or environmental or public health concerns related to outdoor cats. Relying on the shelter system—without also implementing programs specifically aimed at managing community cats—stresses shelters, overwhelming their resources and far exceeding capacity. It also gives false expectations to citizens coming to these agencies for help resolving problems.

The chart to the right from the state of California shows the estimated percentages of outdoor community cats (red) and owned cats (blue) who go outside, compared with the number of cats handled by the California sheltering system who are either euthanized or adopted out (green and navy blue combined) (Koret Shelter Medicine Program). Clearly, the tiny sliver of cats handled by the California sheltering system pales in comparison to the total cat population, demonstrating that these hard-working agencies are still making little long-term impact on decreasing the abundance of cats living outdoors. (Koret, 2013).

Animal rescue groups

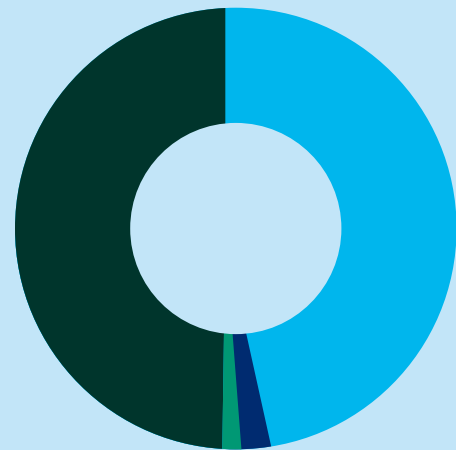
In addition to animal shelters, many communities also have animal rescue groups. These privately run organizations—usually, but not always, with nonprofit tax status—typically do not have a facility and rely on foster homes for any animals in their care. Primarily focused on finding homes for animals in the community, they often take animals from overcrowded shelters. There are many rescue groups that specialize in cat rescue, including those that participate in TNR activities. These groups often focus on the placement of adoptable cats and kittens found living outdoors and can also be a vital partner in providing resources to cat owners who need support to keep their cat in their home.

TNR groups

Thousands of organizations exist around the country for the primary purpose of assisting community cats. While some are nonprofits, typically small and run by unpaid volunteers, others are ad hoc groups of residents who work hard to trap, neuter and return cats living outdoors in their neighborhoods. They likely

Shelter and community cat dynamics

California 2010



49% Outdoor community cats

46% Outdoor pet cats

3% Cats impounded and euthanized

2% Cats impounded and released alive

DATA PROVIDED BY DR. KATE HURLEY, UC-DAVIS



also care for one or more colonies of cats. Their work may also extend to providing support to other community cat caregivers and mitigating conflicts that arise around a cat colony.

Veterinarians

Nonlethal management of community cats, including TNR, is supported by the American Association of Feline Practitioners, American Animal Hospital Association, Association of Shelter Veterinarians and Humane Society Veterinary Medical Alliance, in addition to countless individual veterinarians.

The involvement of local veterinarians is a key component of any sterilization program. Sterilization capacity will be determined by how many surgeries your local veterinary partners can handle above and beyond their everyday business. Even if your agency employs a staff veterinarian, the community may need to engage additional local veterinarians. They can be strong partners for your program, filling in when extra capacity is needed, helping with injured and ill cats, and providing other kinds of medical support.

Wildlife agencies and nonprofit conservation groups

The federal government has not adopted or taken a specific position on TNR, although some federal wildlife agencies oppose the management of TNR colonies in or near wildlife conservation areas. State wildlife agencies are funded through a variety of state and federal sources, such as taxes placed on all firearms and ammunition sold, and thus have traditionally focused on the management of game species and recreational hunting. However, they are becoming increasingly involved in broader conservation agendas that include non-game, threatened and endangered, and invasive species. They typically do not regulate or get involved with TNR programs outside of protected wildlife areas, since cats are domestic animals and do not fall under their purview.

Private, nonprofit wildlife groups, such as the National Audubon Society or the World Wildlife Fund, are funded by donations and private grants and operate primarily to protect

wildlife from harm and habitat degradation. Concern regarding outdoor cat predation on wildlife has become a hot topic in the conservation community, but all stakeholders (both cat and wildlife advocates) share the same end goal of reducing outdoor cat populations. Increasingly, these groups are working together to reach this common goal. See the “Welfare of wildlife” section on p. 29 for more details.

The public

Most people care about cats and want to see them treated humanely. Public opinion polls consistently find that people are opposed to killing healthy outdoor cats (Chu & Anderson, 2007; Rand, Fisher, Lamb, & Hayward, 2019). Communities that embrace effective cat management programs will be rewarded with goodwill from their residents. Many communities are learning what officials in San Jose, California, experienced: that a public who readily understands and supports decisions made in the best interest of the cats turns out to be the best at reducing conflicts between cats and humans and cats and other animals.

While some residents might complain about cats in their backyard or cats adversely affecting their property, many of these complaints can be resolved with information about humane deterrents and civil dialogue with neighbors. Animal control officers can be an integral part of this approach; other successful models include enlisting the aid of a local nonprofit to help mediate cat-related conflicts. Agencies commonly find that nuisance complaints decline after implementing a TNR or return-to-field program.

Public support—and volunteerism—is vital to large-scale sterilization programs. Upwards of 14% of the general public and 17% of pet owners already feed community cats (APPA, 2019; Levy & Crawford, 2004), making them prime recruits, especially when low-cost, high-quality sterilization programs are available. TNR is also supported by the Cat Fanciers' Association.

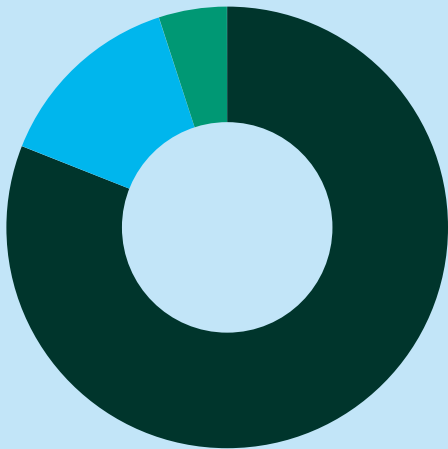
Nonlethal management programs will be readily supported by the majority in your community, while lethal control will not

“*I am very proud to be a part of the profession that puts the “N” in TNR. Nationwide, increasing numbers of veterinary professionals are participating in this lifesaving strategy. More and more veterinary practices treat free-roaming cats and the number of high-quality, high-volume spay/neuter clinics continues to grow. This is all in recognition of the fact that discontinuing the breeding cycle and then returning the cats to their original environment is the only scientifically proven effective and humane approach to stabilizing, and ultimately decreasing, free-roaming cat populations, as well as protecting potentially affected wildlife. The veterinary profession should be applauded for being such an integral part of the solution to a problem that has plagued our country for decades.”*

–Susan Krebsbach, DVM, Humane Society Veterinary Medical Alliance Veterinary Adviser, Oregon, WI

receive the same support and may actively be opposed by concerned residents. Policies designed to support and enable TNR activities are critical; those that place barriers to public engagement in TNR activities or threaten caretakers with penalties for their goodwill and volunteerism need to be amended or removed.

What would you do about un-owned cats in the street?



81% Leave the cats alone

14% Trap and kill the cats

5% Other

An overwhelming majority of Americans believe that leaving a community cat outside to live out his life is more humane than having him caught and euthanized, according to a nationally representative survey conducted for Alley Cat Allies by Harris Interactive in April and May 2007.

U.S. PUBLIC OPINION ON HUMANE TREATMENT OF STRAY CATS LAW AND POLICY BRIEF, ALLEY CAT ALLIES







Managing community cat populations: What does work

Effective community cat management involves both addressing the outdoor cats that already exist in your community and preventing the influx of additional cats. Properly managed sterilization-vaccination programs do not create cat colonies or cat overpopulation—the cats are already there. Your choice is between proactive, effective management of an existing problem or continuing to react in crisis mode to an unmanaged problem. Well-designed and well-implemented community cat programs reduce the numbers of unsterilized and unvaccinated cats, are in line with public opinion, and can mobilize an army of compassionate, dedicated people to act for cats, wildlife and their communities. To be most effective, these programs must be adopted by more communities and supported by more animal care and control agencies and municipal officials. Humane World for Animals strongly recommends proactive, effective community cat management programs (including TNR and other sterilization programs), legislation that allows for and supports them, and coalition-based approaches that involve community leaders, citizens and stakeholders.

Solving community cat problems requires many strategies, including trap-neuter-return, targeting efforts, return-to-field programs, accessible spay/neuter for all cats, services for pet owners and collaboration across humane organizations. Each strategy is discussed in further detail in this section.

Trap-neuter-return

Trap-neuter-return (TNR) and its variants are nonlethal strategies intended to reduce the numbers of community cats, improve the health and safety of cats, and reduce impacts on wildlife. At minimum, community cats are spayed or neutered so they can no longer reproduce, vaccinated against rabies, marked to identify them as sterilized and returned to their home territory.

“

Veterinary students at the University of Florida have been performing TNR in the Gainesville area since 1998. Since Operation Catnip started focusing on litter prevention in community cats, the euthanasia rate for cats at our local shelter has plummeted from more than 4,000 in 1998 to less than 400 in 2012. Residents were wary at first, but 40,000 cats later, it's well-recognized that the program to sterilize, vaccinate and treat parasites in free-roaming cats has made our community better for people and for cats.”

—Julie Levy, DVM, PHD, Diplomate Acvim, Director, Maddie's Shelter Medicine Program at the University of Florida, Gainesville

The universally recognized sign of a sterilized community cat is an ear-tip, a surgical removal of the top quarter inch of the of the cat's ear, typically the left (the right ear may be more common on the West Coast).

TNR can be conducted as a formal program through your animal shelter (alongside return-to-field programs, discussed later in this section) or through a nonprofit group dedicated to assisting community cats. It could also be conducted by a grassroots network of volunteers and other residents. Often programs start as community-driven, capitalizing on the willingness of community members to trap, transport and return the cats and, as the value of TNR becomes more apparent in the community, expand to a more formalized program.

However you start, community-wide TNR programs are effective because they:

- Halt reproduction of existing cats through sterilization, leading to the reduction and eventual elimination of outdoor cat populations through attrition.
- Vaccinate cats against rabies (and other diseases, depending on available resources), reducing public health and safety risks.
- Decrease nuisance complaints by eliminating or dramatically reducing noise from cat fighting and mating and odor from unneutered male cats spraying urine to mark their territory.
- Ease the burden on community resources such as animal shelters flooded with cats and their offspring.
- Bring new financial resources and volunteer workforces into the community.
- Can improve community and neighborhood relations and lead to new collaborations.
- Allow private nonprofit organizations that help community cats and volunteers to mediate conflicts between the cats and residents of surrounding communities.
- Maintain the health of cat colonies and allow caretakers to trap new cats who join the colony for TNR, reunification with their owner, or rehoming.

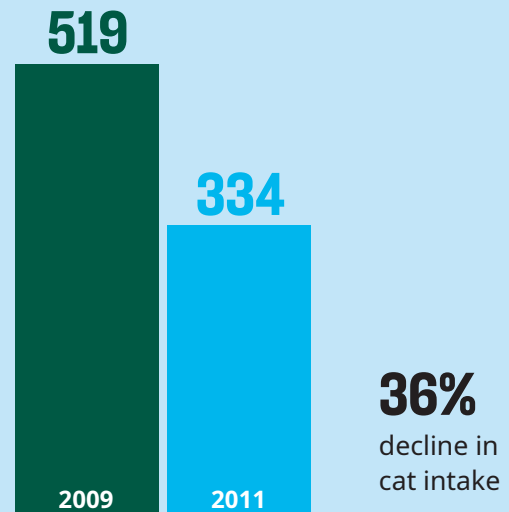
Additional benefits can be had by expanding your community's TNR program to include targeting, return-to-field, services for pet owners and collaboration across humane organizations.

Targeting efforts

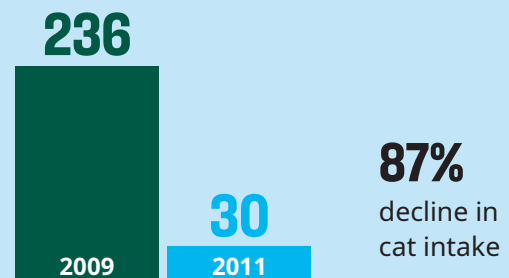
TNR and sterilization efforts are constantly evolving and improving. Through better data collection on cat intake, complaint calls and euthanasia, and with the advent of accessible GIS software, we can now target and focus resources on areas where projects can have the biggest impact. Many projects have had success focusing their funding and efforts within certain zip codes, neighborhoods or specific locations, such as apartment complexes.

Decreases in intake and euthanasia

in rural Montana



Intake



Euthanasia

Where it worked:

Fox Hollow Animal Project, Ravalli Co, MT

Pop. 40,000; 2400 sq. miles

A targeted TNR program provided 1,329 spays/neuters of community cats from July 1, 2010 through 2012.

DATA PROVIDED BY PETSMART CHARITIES

“One of the most important recent advances in TNR is the strategy of targeting. By focusing resources like surgeries, outreach and trappers on areas with high concentrations of free-roaming cats, populations can be reduced faster and more efficiently, resulting in lower intake and euthanasia at shelters as well as fewer complaints.”

—Bryan Kortis, National Programs Director, Neighborhood Cats

Through an assessment of the data for a given community, geographical hot spots become visible. By targeting the appropriate amount of resources—including trappers, surgeries and marketing—to fully address that target zone, programs can effectively stop the reproduction and get a handle on that population set before moving on to the next target area. This approach has a much faster and more visible impact on cat populations than a scattered, random approach centered on complaint calls across a wide geographical area. Targeted efforts allow you to reach a high enough rate of sterilization (ideally as close to 100% as possible) to quell population growth. Assessing your community, mapping cat hot spots and targeting your approach can also help reduce impacts on wildlife by identifying sensitive and vulnerable wildlife areas and focusing efforts in those areas.

Furthermore, a bioeconomic analysis of community cat management strategies found that high-intensity TNR programs, where more effort is put in to sterilize cats at the start of the project, provides better cost efficiency in the long term. Lower-intensity TNR is less efficient yet still recommended if a high-intensity project is not practical for a community to undertake (Benka, et al. 2021).

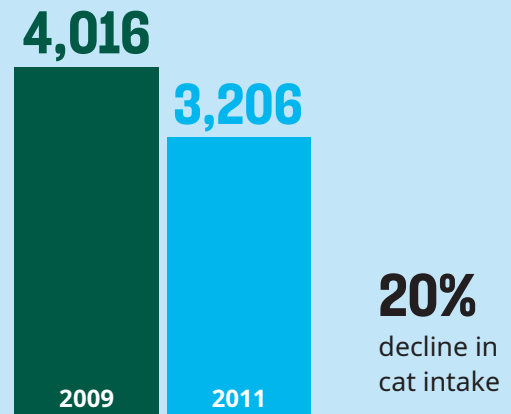
Return-to-field

Return-to-field, also known as shelter-neuter-return, is very similar to TNR, but focuses on the cats who come into your animal control facility or municipal shelter as healthy strays without identification or signs of ownership. Historically, many of these cats were euthanized after being housed and cared for at the shelter for the legally required stray hold, particularly if they were feral or exhibited feral-like behavior.

In the return-to-field program, healthy stray cats without identification or signs of ownership are sterilized, ear-tipped, vaccinated and put back where they were found. The rationale is that if the shelter has no resources, a healthy cat knows how to survive—indeed had been surviving up until she was brought to the shelter—and should not be euthanized just to prevent

Decreases in intake

urban Kentucky



Entire service area



Target zip code

Where it worked:

Alley Cat Advocates, Louisville, KY

A targeted TNR project provided 2,000 spays/neuters of community cats in five zip codes. As a result of the project, the councilwoman for the original target zip code sponsored a TNR-enabling ordinance that passed the city council.

DATA PROVIDED BY PETSMART CHARITIES

possible future suffering. Using resources for sterilization has a larger impact than focusing resources on intake and euthanasia.

As will be discussed in the “What doesn’t work” section, returning these cats to where they were found will actually do more to reduce the overall free-roaming cat population than removing them. Return-to-field is an easy way to start implementing a community cat program. Humane World for Animal’s Return-to-Field Handbook can guide your animal control agency and local shelter through establishing such a program. It’s available digitally at humanepro.org/return-to-field.

In their efforts to combat cat overpopulation, the majority of municipal agencies and private organizations are spaying and neutering animals before they are adopted, providing subsidized spay/neuter for low-income pet owners and supporting community cat caretakers with low-cost spay/neuter services, training, equipment and increased legal protections. Programs like these can also attract private funding and grants and engender public goodwill. They act as community cat prevention programs, reducing the potential for intact owned cats to contribute to the community’s free-roaming cat population or to join the population themselves. A young intact cat reaching sexual maturity may escape a home looking for a mate or an unneutered tomcat may be put outside once he starts spraying and stinking up the house. Investing in resources to provide a spay/neuter option for these cats can help stop the influx of new cats to free-roaming cat colonies.

Most citizens want to do the right thing for their cats, but barriers such as cost or transportation exist in communities across the country. For example, taking an unpaid day off work can offset the value of a “free” surgery if the clinic has limited hours. The most effective programs take into consideration what pet owners need in order to use the services offered. In order to truly address cat overpopulation, these barriers need to be removed for all members of our communities.

Services for pet owners

Another strategy for preventing community cats is to adopt programs that assist residents in keeping their cats, thus reducing the number of cats that are surrendered to the shelter, lost or abandoned. These services, which should be accessible to all residents, can include preventive and wellness care (such as vaccinations), tips for finding pet-friendly rental housing and information on resolving unwanted behaviors such as scratching furniture. Make your animal control agency or shelter a resource for residents facing problems with their cat. Provide cat behavior advice—and potentially medical assistance—if doing so will prevent that cat from being surrendered to your municipal shelter or being abandoned outdoors.

It’s also important to promote keeping cats indoors (or confined with a catio or cat-proof fence) and using collars, visible identification and microchipping for pet cats so that those who do go missing can be quickly reunited with their families.

Collaboration

Each community is different. There is no one-size-fits-all solution for managing community cats. Stakeholders must work together to create programs that address specific needs and maximize their community’s available resources. Often, different groups hold different pieces of the solution.

At times, the community’s resources may allow for kittens young enough to be socialized to be routed to adoption channels.

By working together, municipal agencies, shelters, veterinarians and cat rescue groups can humanely reduce community cat populations while protecting the public, cats and wildlife. The returns are plentiful: fewer free-roaming cats; lower cat intake and euthanasia; municipal cost savings; greater volunteer participation; more adoptions; better use of limited shelter, animal control and public health resources; increased goodwill toward shelters; and more lives saved.

Boosting your impact

A 2019 study looked at the additive value of employing both return-to-field and trap-neuter-return programs at six municipal animal shelters. These integrated community cat programs also employ, when appropriate, adoption, relocation and reunification of cats with their owners, enabling the facilities to provide the best outcome available to each individual cat.

All shelters saw a decline in both feline intake and euthanasia rates over the course of the three-year study. Intake declined by a median of 32% while euthanasia plummeted by a median of 83%. Of the more than 72,000 cats involved in the study, 83% were returned to their outdoor homes, 15% were placed for adoption, 0.6% were reunited with their owners and 0.3% were relocated for safety reasons. Less than 1% of cats were euthanized due to serious medical concerns or died (Spehar & Wolf, 2019a).





Managing community cat populations: What doesn't work

Many conventional strategies have been used over the years to attempt to manage community cats. You might have tried them or have contemplated trying them, but here is why they don't work.

Trap and remove: Lethal control

Trap and remove may at first glance seem to be a logical approach to solving community cat problems. You might be able to eliminate the population if your target is one small colony, but trap and remove does not effectively scale up to an entire community. In order to reduce the population, at least 50% of the cats will need to be removed annually (Andersen et al., 2004). Trap and remove efforts can actually lead to an increase in the population—one study recorded a staggering 211% increase in cats (Lazenby, Mooney, & Dickman, 2015)!

The resources (money, staff, etc.) required to capture this many cats simply do not exist, either in the budgets and capacity of government agencies or in terms of public support. Haphazard lethal control efforts only result in a temporary reduction in the cats' numbers, essentially putting a bandage on the problem and further distance from real solutions. Research has shown that low-intensity and periodic removal of cats, such as is characteristic of old-school trap and remove programs, is much less effective in reducing cat populations, as well as being more expensive (Benka, et al. 2021).

The unfortunate reality is that once removed, these cats have few options and shelters have no other recourse but to euthanize



them. When euthanasia is performed on healthy but unsocialized cats, it can be characterized as unnecessary, calling into question whether their deaths are humane.

Opposition from many in the community who oppose killing cats and insufficient resources to achieve the level of removal/euthanasia necessary to achieve results can often prove to be insurmountable barriers to lethal control programs. Communities that use trap and euthanize strategies typically do not achieve reductions in the number of cat complaints, and cat intake at local shelters stays constant or continues to rise. Therefore, the only result of trap and remove/euthanize programs is turnover—new feline faces in the community, but not fewer.

Trap and remove: Relocation and sanctuaries

Some individuals or organizations may call for unowned cats to be relocated elsewhere or placed in sanctuaries. While this may seem like a humane alternative to lethal control, it is unrealistic due to the sheer numbers of cats in communities and the scarcity of appropriate relocation locations. Relocation simply shifts cats from one outdoor home to another.

Some shelters and rescues have implemented successful working cat programs, where unsocialized cats can be relocated to barns, warehouses and similar venues, often to provide rodent control. These programs are labor intensive and are by their nature limited. While working cat programs can provide an option for a small portion of the cats, they can't address the large number of unowned cats in the community.

Likewise, a small number of unowned cats may benefit from lifelong placement in a sanctuary. However, quality sanctuaries,

“Bans on feeding feral cats do nothing to manage their numbers. Bans force feral cats to forage through trash cans and kill wildlife, such as birds, squirrels and rabbits. Establishing feeding stations ensures a healthy colony and allows a human being to interact with the colony and provide... Feeding stations also bring feral cats to a central location and help establish trust, making trapping [for sterilization] an easier task.”

—Wayne H. Thomas, Councilman, Hampstead, MD

if available in your area, quickly fill to capacity and are expensive to operate. Cat populations vastly outnumber available spots at sanctuaries, making them an unrealistic option for most communities. Many unfortunate examples exist of sanctuaries that grew beyond their capacity and resulted in neglect and cruelty. This places an additional burden on communities, requiring law enforcement intervention and resulting in a large group of cats again needing to be removed and relocated.

Cat feeding bans

The logic behind banning the feeding of outdoor cats is that if no one feeds them, they will go away. However, cats are strongly bonded to their home territories and will not easily or quickly leave familiar surroundings to search for new food sources. Instead, they tend to move closer to homes and businesses as

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One of the new programs we created was our TNR program, the Apartment Cat Team (ACT). Our data showed us that apartment complexes and mobile home parks were “ground zero” for abandoned cats, feral cats and litters of unwanted kittens. The ACT program focuses on teaching and empowering apartment residents and managers in the benefits of TNR, spay/neuter, rabies vaccination and microchips. In addition, we are recruiting kitten foster homes and rescuing kittens out of feral life, socializing them and adopting them into new homes. The ACT program is a vital program that is contributing to a reduction in euthanasia—along with other innovative programs we have recently put into place to save cats and kittens. The ACT program gives us a chance to try a different approach that is not only more humane, but that also builds rapport between manager and tenant. The result is a public better educated about humane treatment of animals.”

—Mike Oswald, former Director, Multnomah County Animal Services, Troutdale, OR



they grow hungrier, leading to more nuisance complaint calls, greater public concern for the cats' welfare and underground feeding by residents. People who feed cats will ignore the ban, even at great personal risk, and enforcement is extremely difficult, resource intensive and unpopular. Furthermore, failing to provide sustenance to cats that they have fed up until a feeding ban was enacted could put caretakers in jeopardy of violating anti-cruelty laws at the state and local level (ABA, 2017).

Cat feeding bans are often prompted by complaints about a single situation where feeding practices have created a nuisance. Instead of managing by exception, these situations can be addressed through existing sanitation laws and implementation of best practices for feeding outdoor cats.

Treating community cats like owned pets: Licensing laws, leash laws and pet limits

Laws intended to regulate pet cats and their owners don't work to reduce community cat populations, because community cats do not have "owners" in the traditional sense. Instead, they're cared for by compassionate citizens who happen upon them. Caretakers don't consider themselves "owners" of community cats, even if they provide daily food and medical care when needed. These caretakers should not be penalized for their goodwill; they are essentially supplementing the community's cat management protocols with their time and resources. Rather, laws should be designed to incentivize people in the community to care for these cats and to contribute to efforts to humanely

“While licensing a cat (like dogs) seems responsible, the unintended consequences of it are damaging. Licensing owned cats does not take care of feral cats that are not owned by anyone.”

—Councilman Rod Redcay, Denver Borough Council, PA

reduce the community's unowned cat population.

Caretakers don't choose how many cats live outdoors, so pet limits are of little use. Because these cats are not owned, caretakers don't control the cats' movements, so leash laws are equally ineffective. It is not as if these cats can simply be taken indoors and transformed into house cats.

Most importantly, forcing ownership on those who feed cats does nothing to reduce the population. Requiring community cats to be licensed by caretakers is ineffective. Compliance for owned cat licensing is typically very low, and cat-licensing projects rarely pay for themselves, further draining already limited resources. Moreover, mandating caretakers to register colony locations often causes those concerned for the cats' welfare to go underground and off the municipal radar. Policies that impose penalties on caretakers are barriers to sound community cat management. However, proactive, nonlethal control programs can enlist the support of caretakers by gaining their trust and engaging them as volunteers.



Concerns about community cats

CONCERN: TNR is illegal in our community

Some existing ordinances may have components that pose barriers to practicing TNR and return-to-field. Ordinances are typically written for pet cats or for dogs, so it's important to review local and state laws to know where amendments are needed to allow your community to implement TNR and return-to-field. For example, laws might ban feeding animals outdoors, limit the number of cats that can be owned (with "owners" defined in a way that includes colony caretakers), prohibit returning cats to the community under abandonment language, prohibit cats from roaming freely or require that all cats be licensed. For an effective community cat program to thrive, your community should amend these provisions to exempt managed community cats and their caretakers or enact an ordinance that explicitly legalizes TNR.

Even when conflicting regulations don't exist, some municipalities may choose to enact an ordinance authorizing community cat management programs and defining the roles and duties of all parties. Or a community might prefer, as a matter of local culture, to allow TNR and return-to-field informally. In such cases, an ordinance might be unnecessary and interrupt the functioning and growth of an already successful program. The goal of a community cat ordinance is to clear barriers to a successful sterilization program so that you can reduce the number of unowned cats in your community. Your program will succeed only if your community encourages participation and full engagement by caretakers and removes overly burdensome requirements and restrictions that discourage their involvement.



CONCERN: By allowing TNR, the municipality may be liable for any future conflicts with cats

The Tort Trial and Insurance Section of the American Bar Association supports the adoption of TNR programs by local governments. Conducting or allowing a TNR program in order to reduce cat populations, protect public health and mitigate nuisance complaints is a legitimate government purpose, thus the municipality can argue that it should not be held liable for third-party claims (ABA, 2017).

In addition, liability for harm caused by animals typically stems from ownership—but no one "owns" a community cat just as no one "owns" a squirrel who might cause damage.



Carroll County [had] a law that [was] in effect in Hampstead, which [stated] that if you care for an animal for more than three days, the animal is considered yours. Therefore, anyone caring for feral cats for more than three days would be considered their owner and if it were more than three cats, that person would be in violation of the Hampstead limit of three cats. The code change I proposed and got passed exempted persons participating in a TNR program with continued care of feral cats from the limit of three cats. This allowed citizens to participate in the TNR programs and management of feral cat populations.”

—Wayne H. Thomas, Councilman, Hampstead, MD

Even if a person is bitten or scratched, a TNR'd cat likely would have been vaccinated against rabies. Rabies prophylaxis treatment may still be advised, but the real risk of rabies is reduced. Consider an alternate situation, where a person is bitten and sues the municipality because officials turned down a TNR program that would have dealt with an overpopulation issue and vaccinated cats against the disease.

CONCERN: The cost to the municipality

Long-term solutions like TNR may sound expensive, but they usually end up costing less than repeated cycles of trap-house-euthanize. TNR is a long-term investment in a

community. As it often starts as a grassroots effort, the cost of TNR is often covered out of pocket by individuals who care about community cats and by nonprofit organizations investing in the community. But animal care and control agencies and nonprofit animal shelters with self-funded programs have often found the cost of TNR and return-to-field less expensive than admitting, holding, euthanizing and disposing of healthy cats. Moreover, implementing TNR and return-to-field programs can drastically reduce cat intake at the shelter as well as cat-related complaints, which is a big cost savings. If officers don't have cat complaints to respond to, they can focus on other duties.

The money saved can be put toward more sterilization surgeries or allocated to other areas of need. There are also many grant opportunities available for targeted TNR and return-to-field programs that can offset budgets and improve efforts.

CONCERN: Community cats transmit diseases like rabies

Rabies is a disease of significant concern, and focusing on prevention is the best medicine. Vaccinating community cats against rabies is an opportunity to protect public health, not an added threat.

According to the Centers for Disease Control and Prevention, over the last 100 years, rabies in the United States has changed dramatically. The number of rabies-related human deaths in the United States has declined from more than 100 annually at the turn of the century to one or two per year in the 1990s. In the United States, human fatalities associated with rabies occur in people who fail to seek medical assistance, usually because they are unaware of their exposure. Modern day prophylaxis has proven nearly 100% successful (CDC, 2024).

The CDC also writes that the number of reported cases of

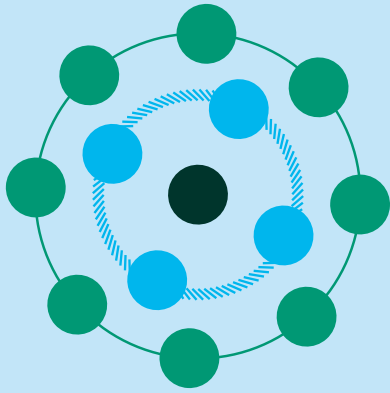
American Bar Association Resolution 102b (2017)

Resolved, that the American Bar Association urges state, local, territorial, and tribal legislative bodies and governmental agencies to interpret existing laws and policies, and adopt laws and policies, to allow the implementation and administration of trap-neuter-vaccinate-return programs for community cats within their jurisdictions so as to promote their effective, efficient, and humane management.

In sum, properly implemented TNVR programs serve multiple purposes, including stabilizing and reducing community cat populations, protecting public health through vaccination efforts, and/or resolving nuisance behaviors and corresponding complaints. These are all goals worthy of government involvement, and the governmental agency should make these interests and intents clear and remove any unintended legal obstacles that result from a misapplication of traditional animal control laws. Promoting the consistent interpretation and/or drafting of laws related to aspects of TNVR programs will serve to further these interests (ABA, 2017).

Rabies vaccination ring theory

vaccinated cats act as a barrier



- Infected
- Vaccinated
- Unvaccinated

rabies is decreasing in both wild and domestic animals. In 2021, wild animals accounted for 92% of reported cases of rabies. Although most rabies cases occur in wildlife, domestic animals are the source of most human cases that require post-exposure treatment because people are more likely to handle unknown dogs and cats than wildlife. The number of rabid cats continues to decline year after year, with only slightly more than 1% of cats who are actually tested for rabies being found positive for the disease (Ma et al., 2023).

Removing cats is not the answer to this real but limited threat. The World Health Organization, which manages global campaigns on rabies eradication, hasn't recommended removing stray dogs (dogs are the source of 95% of human rabies deaths globally (Fahrion, Mikhailo, Abela-Ridder, Giacinti, & Harriesa, 2016)) to control rabies since 1983 because vaccine programs have been more successful (WHO, 1984).

Vaccinating community cats against rabies as part of a TNR program should be supported as a preventive measure against the potential spread of the disease. Not only will this protect individual cats from contracting rabies and passing it on, but it will provide protections for the larger community. The presence of some vaccinated cats prevents one infected cat from becoming

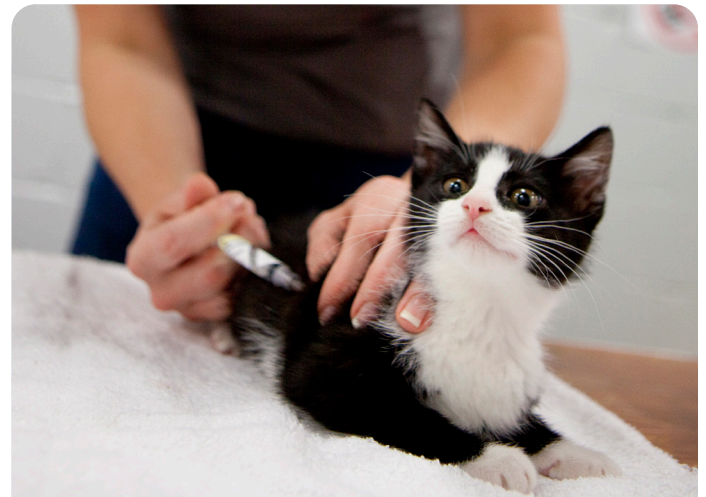
an outbreak, as they act as a barrier between the infected cat and the unvaccinated cats. This is vaccination ring theory, and it's how smallpox was eradicated. Having some vaccinated cats outdoors is better than having none. While state law vary regarding rabies vaccinations for cats, efforts should be made to revaccinate cats when possible.

People who feed community cats should use feeding strategies that do not attract wildlife (e.g., not leaving food out overnight), as should people who feed their pet cats outdoors. Reducing interaction between community cats and wildlife will reduce the opportunity for the cats to contract rabies.

Some public health officials have concerns about revaccinating community cats when vaccines expire. Because the lifespan of community cats is typically much shorter than that of pet cats, a vaccine labeled with three-year immunity may provide protection for the life of many community cats. It's clearly better than no vaccine at all. Local governments can support both public health and community cat programs by helping to make rabies vaccines easily available for both community and owned cats.

CONCERN: Cats will continue to be a nuisance to residents

When outdoor cats are spayed and neutered, nuisance behaviors can be drastically reduced or eliminated. Neutered cats typically don't yowl late at night or fight over mates (Finkler, Gunther, & Terkel, 2011) so noise is greatly reduced. The odor from male



There has not been a proven case of cat-to-human transmitted rabies in four decades, and the more vaccinations administered through TNR programs, the more likely this trend is to continue (Anderson et al., 1974; Roebing et al., 2014).



cat urine is mostly eliminated because testosterone is no longer present, and spraying to mark territory may stop entirely. Altered cats, no longer in search of mates, may roam less, staying closer to home (Scott, Levy, Gorman, & Neidhart, 2002) and become less visible to neighbors. Because they can no longer reproduce, there won't be kittens to be concerned about, and over time there will be fewer cats. This will result in fewer nuisance behaviors, fewer complaint calls and a reduced impact on wildlife.

For any remaining concerns, caretakers can use other strategies to encourage cats to stay where they are wanted and deter them from entering areas where they're not. Using readily available items or humane cat-deterrent products available in stores and online, residents, cat caretakers and animal control officers can work together to mitigate the complaint. Facilitating dialogue and mutually agreed-upon resolutions is often a much more effective outcome than removing the cat(s) in question, especially when the complaint is the result of a neighbor dispute unrelated to the cat.

CONCERN: Welfare of outdoor cats

The idea that community cats are at great risk for suffering and untimely death if not admitted to a shelter is a long-standing one. Free-roaming cats do risk higher exposure to dangers such as predators, poisons, infectious and parasitic agents, weather extremes and cruel human acts. While the physical dangers to free-roaming cats are not to be ignored, a growing body of evidence suggests that they are generally fit and healthy, with less than 1% of cats coming into TNR clinics requiring euthanasia to end suffering (Wallace & Levy, 2006; Spehar & Wolf, 2019a). The overall health of community cats was found to have improved a year after being sterilized, vaccinated and returned (Scott et al., 2002) and they have greater immunity against a host of other diseases and parasites (Fischer et al., 2007).

Decreases in complaint calls

in suburban Texas

1,958 calls



2009

2012

<200 calls

90% decline in cat-related calls

Where it worked:

PETS Low Cost Spay and Neuter Clinic, Wichita Falls, TX (pop. 104,000)

The clinic provided 1,188 spays/neuters of community cats from 2011 through 2012.

DATA PROVIDED BY PETSMAST CHARITIES

Sterilized cats tend to fight less and stay closer to home, decreasing risk of injury or of being hit by a car. Sterilized cats are also less likely to transmit feline diseases that are largely spread through mating behavior and mating-related fighting (Finkler et al., 2011). While some believe cats living outdoors are more susceptible to common feline diseases, such as feline immunodeficiency virus (FIV) or feline leukemia virus (FeLV), these viruses occur at the same rate as in the pet cat population (Lee, Levy, Gorman, Crawford, & Slater, 2002).

The generally good condition of free-roaming cats may be explained in part by the support given to them by caregivers, who commonly provide regular food and water, and, oftentimes, protection from the elements. More than 14% of the general public and 17% of pet owners feed free-roaming cats (APPA, 2019; Levy & Crawford, 2004).

The greatest risk is to kittens, as only 25% of cats born outdoors survive past 6 months of age (Nutter, Levine, & Stoskopf, 2004). Recent population modeling work shows that high-intensity TNR not only reduces overall populations of free-roaming cats more effectively than other management tactics, but also results in significantly fewer of these preventable deaths—31 times fewer than not implementing any community cat management program (Boone et al., 2019).

CONCERN: Welfare of wildlife

There are no easy answers to the issue of cat predation on wildlife. What to do about it has been a concern for more than

100 years. However, neither cats nor wild animals are well served by a polarized, divisive and expensive “cats vs. wildlife” controversy—especially when all parties can agree that the long-term goal is no (or realistically very few) free-roaming cats. That’s not going to happen quickly nor is it going to happen by simply removing the cats found outside.

Practical and sustainable solutions include using TNR, return-to-field and managing cats (individuals and colonies) so they do not impinge on designated wildlife areas and at-risk wildlife populations. Not all cat colony situations pose the same threat. For example, cats may need to be relocated when they congregate in or near a sensitive wildlife habitat, whereas they could be effectively managed behind a shopping center in a suburban town. When predation by community cats is an issue, respectful dialogue and productive collaboration between cat and wildlife advocates is essential. There are several examples of such dialogue that communities might seek to follow such as the Cats Safe at Home™ outreach campaign in the Portland, Oregon metropolitan area. (“Cats Safe at Home,” 2024).

Wildlife and cat advocates can also help protect wildlife by joining forces in non-controversial collaborative projects such as informing cat owners about keeping owned cats indoors, seeking support and funds for installing cat-proof fences around sensitive natural areas, humanely relocating cat colonies that pose unacceptable risks to wildlife and, of course, continuing community cooperation to improve the efficiency and economy of TNR programs.





Good policy for cats

Properly managed TNR programs do not create cat overpopulation—the cats are already there. Your community must choose between progress or an unmanaged, ever-growing problem. Well-designed and well-implemented programs that focus on nonlethal control and involve all community stakeholders are in line with public opinion. They can mobilize an army of compassionate, dedicated people who care about the cats, wildlife and their communities.

By working together, municipal agencies, shelters, veterinarians and cat rescue groups can humanely reduce community cat populations while protecting the public, cats and wildlife. The returns are plentiful: fewer community cats; lower cat intake and euthanasia in shelters; municipal cost savings; greater volunteer participation; more adoptions; better use of limited shelter, animal control and public health resources; increased goodwill toward shelters; and more lives saved.

Doing nothing or repeating failed approaches is no longer an option. Proactive, effective approaches exist and need to be fully embraced and implemented in a majority of our communities if we're going to have a lasting impact. Please join us in making our communities safer for all.

The best policies are those that encourage use of best practices without creating barriers for community participation in resolving a community issue. TNR should be conducted strategically, sustained at a rate necessary to cause a decline in the population, and paired with efforts to keep cats in homes. When implemented effectively, TNR can:

- Decrease municipal costs. TNR is less expensive than trapping and impounding cats, caring for them during their stray hold, and providing an outcome—be that adoption, transfer or euthanasia. Moreover, caring residents who feed hungry stray cats can be mobilized to take this action a step further and participate in trapping and sterilization, which can also decrease the number of community cats entering municipal and private animal shelters.
- Decrease public health and safety concerns. Vaccinating community cats against rabies as part of a TNR program should be supported as a preventive measure against the potential spread of the disease. Cats who are vaccinated and sterilized are also healthier overall.
- Decrease nuisance complaints. Spayed and neutered cats roam less; are less likely to fight over mates, food and

“*Trap, neuter and return works. It is a humane solution and we are thrilled that in such a short time the TNR program is showing significant results in Fairfax County. With the help of citizen trappers, we are able to spay or neuter these cats before they contribute to our community's homeless cat population. TNR is saving lives in Fairfax County.*”

—Dr. Karen Diviney, former Director, Fairfax County Animal Shelter, Fairfax, VA

territory; and no longer emit the pungent odor of intact male cat urine. Managed colonies of cats are less likely to disturb trash cans. With the use of humane deterrents, cats can be conditioned to avoid areas where they are not welcome. Good policy outlines a clear mechanism to resolve complaints via nonlethal means and engages the community in being part of the solution.

- Reduce predation on wildlife. Humanely reducing and managing community cat populations ultimately reduces the threat of predation on wildlife. When colonies are actively managed, any abandoned housecats and young kittens can be removed and rehomed, thus preventing population growth.

Thank you for considering these proven recommendations to make your community a healthier and safer place for people, cats and wildlife. May the information in this publication give you and your community a roadmap and tool set for implementing a humane community cat management program. If you would like assistance in updating your animal ordinance to allow for trap-neuter-return and humane community cat management, please reach out to companionanimals@humaneworld.org.

Science in support of humane community cat management

Numerous studies demonstrate the effectiveness of TNR in stabilizing and reducing community cat populations. A 2008 review of scientific literature on feral cat control methods found "(d)ata support the success of TNR in reducing cat populations, but to have a large impact it will have to be adopted on a far greater scale than it is currently practised." The article notes that laws in some U.S. jurisdictions can be a barrier to TNR and that support by municipal and government agencies are essential for long-term success (Robertson, 2008).

Featured studies

Targeted TNR resulted in 82% decline from peak population in neighborhood study

Citizen science was employed to document the impact of TNR in one Chicago neighborhood. Colony populations decreased by a mean of 82% from peak and 54% from when the colony was first recorded. Eight of the 20 colonies identified in the neighborhood were eliminated by the end of the study period (D. D. Spehar & Wolf, 2018).

From 300 to 0 with TNR

Newburyport, Massachusetts, implemented a trap-neuter-return program in 1992, which resulted in the elimination of more than 300 cats from the small town's waterfront. Prior to starting TNR, then a new strategy, none of the colonies were managed. The last known cat on the waterfront died at age 16, 17 years after the TNR program began. The area has remained free of cats since that time. Examining retrospective data, this case study illuminates the effectiveness of comprehensive humane cat management efforts yet points to the need for the establishment of standardized data collection and assessment practices (Spehar & Wolf, 2017).

Three decades of sustaining population reduction on a college campus

Before implementing a TNR program on the University of Central Florida campus in 1991, periodic trap and removal efforts tried to keep the population at bay when it increased to nuisance levels. Over the first six years of the TNR program, the cat

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In the ongoing and polarized dialogue concerning the role of nonlethal management, including trap-neuter-return (TNR), in managing community cats, reference is often made to studies that demonstrate that this approach does not work. This selected bibliography points to studies that, among others not summarized here, comprise a body of work that shows TNR as a valuable tool in managing cat populations at the local level. Clearly, additional research would help us determine how nonlethal strategies can be best maximized as a tool for controlling cat populations, but we believe that the argument that it is indeed possible is past us now and that it is time to move forward with improving and perfecting this approach.”

–Dr. John Hadidian, Sr. Scientist (Retired), Humane World for Animals



population declined by 66%. No kittens were observed on site after 1995. Additional stray or abandoned cats arrived, but they were neutered and adopted before they could reproduce. The campus cat population decreased by 85% to 23 cats in 2002, and further declined so that only 5% or 10 cats remained on campus in 2019 demonstrating that a long-term program of neutering plus adoption or a return to the resident colony can reduce free-roaming cat populations in urban areas (Levy, Gale, & Gale, 2003; Spehar & Wolf, 2019b).

TNR success along natural recreation trail

A long-term TNR effort along a two-mile stretch of the San Francisco Bay Trail brought about a 99.4% decline in community cat population. A total of 258 cats were enrolled in the program over the course of 16 years, with only one cat remaining at the conclusion of the study. As the trail is in the Pacific Flyway for migratory birds, cats were migrated away from sensitive bird habitat through the relocation of their feeding stations (Spehar & Wolf, 2020).

In the long run, TNR programs are cost-effective

For many years, Texas A&M University attempted to control its campus cat population with a trap-and-euthanize approach. Two years after a TNR program was implemented on campus, there was a 36% reduction in the number of cats and fewer nuisance complaints to the university's pest control service. The authors also note that although the initial costs of starting up TNR programs can be substantial in terms of time and money, these costs tend to decrease with time as fewer new cats need to be caught (Hughes & Slater, 2002).

TNR reduces cat populations in rural area

Examining the impacts of TNR versus no action in rural North Carolina, researchers calculated a 36% average reduction in six cat populations during the two years after TNR. In comparison, two unsterilized cat populations, serving as controls, increased by an average of 47% over the same time period (Nutter, 2005).

Trap-and-remove efforts can substantially increase cat populations

To determine the population impact of trap and remove (culling) efforts on two open population sites in Tasmania, researchers used wildlife cameras and cat counts to track the number of cats at each site. Despite culling efforts, researchers found large increases in cat numbers: One site had a 75% increase, while another had a staggering 211% increase. Researchers suspect that the populations increased because new cats moved into the sites to take advantage of resources that became available when previously dominant cats were removed. Another explanation could be that kittens born to the unsterilized remaining cats had a better survival rate thanks to more readily available resources (Lazenby et al., 2015).

A similar study in North Carolina found population increases at three sites with no TNR of 31%, 127% and 238% over the first two years of the study. Meanwhile, sites where TNR was conducted experienced population declines ranging from 30% to 89% over the same period (Stoskopf & Nutter, 2004).

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