

Managing Community Cats

A Guide for Municipal Leaders





TABLE OF CONTENTS

Foreword	1
Why This Guide Is in Your Hands	2
Why There Are So Many Cats	3
Meet the Players	5
Managing Community Cat Populations: What Doesn't Work	11
Managing Community Cat Populations: What Does Work	14
Addressing Concerns About Community Cats	18
Finding Funding	23
Final Thoughts	24
Resources	25



FOREWORD

Few animal-related issues facing local leaders are potentially more difficult and time-consuming than those involving un-owned 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.

"Community cats" are typically un-owned or semi-owned cats, comprised of both strays (lost and abandoned former pets who may be suitable for home environments) and ferals (extremely fearful of people and not welcoming of human attention, making them unsuitable for home environments), who are the offspring of other feral or stray cats. Some community cats can be considered loosely owned, meaning that concerned residents feed them and may provide some form of shelter in their own homes or on their own property, but do not always identify the cats as their own personal pets.

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

This guide can assist municipal leaders in evaluating the presence of cats in their communities and determining how to address these populations effectively.



WHY THIS GUIDE IS IN YOUR HANDS

Local officials and agencies are mandated to protect public health and safety by managing animal control issues such as zoonotic diseases, nuisance animals, and animals running at large. Agencies also commonly receive calls from constituents about community cats.

The issue of managing community cats can create unnecessary conflict. 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 not be managed by field officers who neither have 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. New research (Hurley and Levy, 2013) reveals that this non-targeted, selective response to a population which 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.

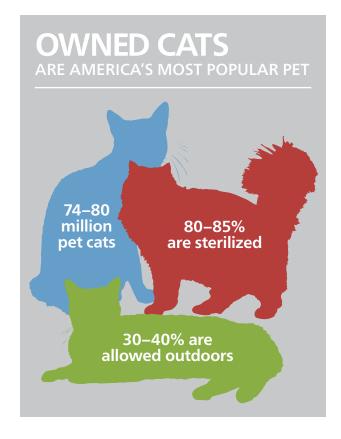
"A well-managed TNR program will provide both cost control as well as long-term, community cat population control for a municipality. In Somerdale, we recognize this value and the positive impact it will have on our animal and residential population. We also recognize that this proactive approach is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

WHY ARE THERE SO MANY CATS?

Owned Cats

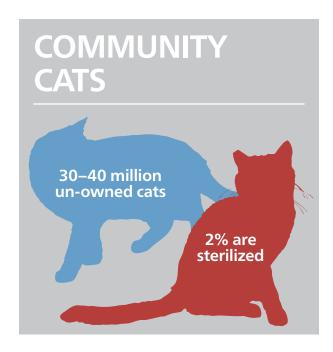
Cats are the most popular pet in the United States according to the American Veterinary Medical Association's 2012 U.S. Pet Ownership & Demographics Sourcebook (AVMA 2012). Approximately 30% of households own cats, and overall owned cat numbers have been increasing as the number of households in the U.S. rises. 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. In underserved communities, rates of sterilization in owned cats tend to be much lower, with cost and transportation being the biggest barriers. Accessible spay/neuter services for cat owners are critical for the overall welfare and management of cats. Approximately 65% to 70% of owned cats are kept indoors at least at night, and this trend has been on the rise, up from approximately 20% in the 1970s (APPA 2012).





Un-Owned Cats

Unsterilized community cats (un-owned or semiowned) contribute about 80% of the kittens born each year and are the most significant source of cat overpopulation (Levy & Crawford, 2004). Estimates vary greatly for the number of community cats in the United States, ranging all the way from 10 to 90 million (Loyd & DeVore, 2010). The limited evidence available indicates that the actual number may be in the 30-40 million range (Rowan, 2013). The real problem is that only about 2% of them are spayed or neutered (Wallace & Levy, 2006) and continue to reproduce generations of outdoor cats. 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, Program Manager, PetSmart Charities, Phoenix, AZ

Community cat population numbers are greatly affected by the community in which they live. Human demographics, types of land usage, climate, presence of predators, and availability of resources all affect the cat population and determine how many cats can be supported in a given area. Population estimates vary greatly and provide only a loose number that can be further

refined as program work takes place. Experts differ on recommended calculations, with a range of formulas from human population divided by six (Levy & Crawford, 2004), to human population divided by 15 (PetSmart Charities, 2013). For a mid-range estimate of the number of community cats in your area, divide your human population by 10. This estimate is exactly that—an estimate. Cold weather areas with freezing temperatures or locales with robust predator populations that limit survival may have fewer cats than estimated, while rural areas with lots of barns and farms may have more than estimated. Warm climates tend to support larger populations of cats. Densely populated areas with shelter and adequate food sources for outdoor cats may have very large concentrations or relatively few cats depending on the neighborhood's demographics.

MEET THE PLAYERS

Knowing the stakeholders in your community and working cooperatively with them leads to better outcomes and a more cohesive community cat management plan.

Most animal care and control agencies are operated by local governments, but some jurisdictions contract with nonprofit organizations to perform these important functions. Regardless, their primary role is to manage public health, safety, and disease concerns as well as complaints from community residents. These agencies are also expected to take care of and redeem lost pets, as well as re-home pets who no longer have homes. For people concerned with the welfare of outdoor cats or those who find them a nuisance, animal

care and control agencies are often the first points of contact. Animal care and control agencies and public health departments need to be prepared to respond effectively to these complaints and proactively address community cat populations when possible.

One of the biggest challenges is maintaining adequate resources (i.e. budget). Few local governments find themselves swimming in the extra money needed to adequately fund a complete animal sheltering operation, including programs addressing community cats. This underscores the importance of volunteers and nonprofit organizations in the community who are willing to devote their resources to helping manage community

PUBLIC HEALTH DEPARTMENTS'

APPROVAL OF TNR

html



New York City Department of Health and Mental Hygiene

nyc.gov/html/doh/html/ environmental/animals-tnr

Lists local TNR groups on its website



Delaware Department of Health & Social Services, Division of Public Health dhss.delaware.gov/dhss/ dph/oaw/foundstraycats.

Lists TNR as an approach for managing community cats

New Jersey State
Department of Health
& Senior Services
state.nj.us/health/
animalwelfare/stray

Lists TNR as an approach for managing community cats



uploads/File/Resources/ Ordinances/Baltimore_ TNRRegs.pdf

Issues regulations for practicing TNR





"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, Delaware Division of Public Health Director, Wilmington, DE

cats. We strongly encourage municipalities to develop comprehensive volunteer programs and partnerships and agreements with other community organizations. It's also important that agencies evaluate their intake and outcomes regularly to ensure that current resource allocations are appropriate. For example, an agency with high euthanasia rates for cats may want to reconsider its intake policies and reallocate those resources spent housing cats for euthanasia on proactive cat management.

"The Vet PH SPIG encourages communities to discuss trap, neuter, vaccinate and return (TNVR) as a management practice to control community cats, and to adopt this practice where possible."

—American Public Health Association— Veterinary Public Health Special Interest Group Policy

Read about municipalities where animal care and control provides services to reduce community cat populations:

Pittsburgh, PA (pittsburghpa.gov/animalcontrol/spay_neuter.htm)

Elk Grove, CA (elkgrovecity.org/animals/feral-cats.asp)

Dallas, TX (dallasanimalservices.org/trap_neuter_return.html)

Sacramento County, CA (animalcare.saccounty.net/spayneuter/pages/feralcatsandkittens.aspx)

San Jose, CA (sanjoseca.gov/index.aspx?nid=2382)

Camden County, NJ (ccasnj.org/spay_neuter_clinic/feral_cats.html)

Private Animal Shelters and Humane Societies

Around three billion public and private dollars are spent each year operating animal shelters across the country (Rowan, 2012). The primary role of most private animal shelters is the housing and adoption of homeless cats and dogs, but shelters are often the receptacle for injured or sick wildlife and cats and dogs who might be considered unadoptable by some. Many community cats fall into this category.

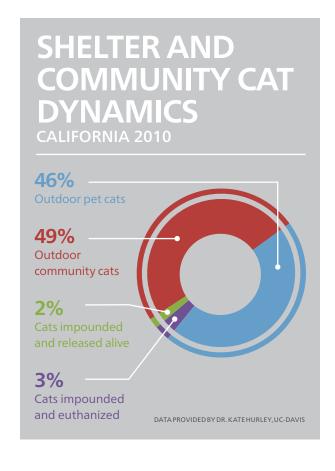
These organizations play an important role in the community, often serving as a point of contact, and are widely recognized by the public for enforcing local and state humane laws and ordinances. They are often involved at a policy level, lobbying for animal protection laws and programs.

"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, Director, Animal Care and Services, San Jose, CA

Approximately 6–8 million cats and dogs enter U.S. animal shelters annually, with approximately half being euthanized (HSUS, 2013). That number includes as many as 70 percent of cats who enter shelters (ASPCA, 2013). These cat-related intake and euthanasia activities cost more than a billion dollars annually (Rowan, 2012), while affecting only a tiny fraction of the total number of cats in a given community and doing nothing to manage overall cat populations. This haphazard approach has little impact on welfare, environmental, or public health issues. It stresses shelters, overwhelming their resources and far exceeding capacity, and it gives false expectations to citizens coming to these agencies for help resolving problems.

The pie chart 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 purple combined) (CA Dept of Public Health, 2013). Clearly, the tiny sliver of cats handled by the



RETURN TO FIELD

Some shelters care for feral colonies on their own property, either by themselves or in collaboration with local TNR groups. Others with high euthanasia rates for cats are embracing "Return to Field" programs as a way to reduce euthanasia while focusing energy and resources on spaying and neutering.

In the Return to Field program, healthy, un-owned cats are sterilized, eartipped, 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 and should not be euthanized to prevent possible future suffering. Using resources for sterilization has a larger impact than focusing resources on intake and euthanasia.



California sheltering system pales in comparison to the total cat population, demonstrating that these hard-working agencies are still making little longterm impact. (Koret, 2013).

Animal Rescue Groups

These privately run organizations—usually, but not always, with nonprofit tax status—typically do not have a facility and are fosterbased. Rescue groups are primarily focused on finding homes for animals in the community. Often, rescue groups and shelters have cooperative relationships in which shelters transfer animals to the care of rescue groups whose foster homes and volunteers help to stretch resources and increase opportunities for homeless animals. There are many rescue groups that specialize in cat rescue, including those that participate in TNR activities.

TNR Groups

Thousands of nonprofit organizations exist around the country for the primary purpose of assisting community cats. These organizations are often funded by private donations and

operate on small budgets, but they work hard—often as unpaid volunteers—to trap, neuter, and return cats living outdoors. They may also be involved in local politics, lobbying for improved animal-related ordinances and funding. Some TNR groups also consider themselves rescue groups, and vice versa.

Wildlife Agencies and Conservation Groups— Public and Private

The federal government has not adopted or taken a specific position on TNR. Federal wildlife agencies, such as the U.S. Fish and Wildlife Service, oppose the management of TNR colonies in or near wildlife conservation areas, and individuals in federal agencies have adopted a variety of positions with regard to TNR programs. State wildlife agencies, such as departments of natural resources or fish and wildlife agencies, are funded through a variety of state and federal sources, such as taxes placed on all firearms and ammunition sold. These



state agencies have traditionally focused on the management of game (i.e. hunted) species, but increasingly are becoming involved in broader conservation agendas that include non-game and threatened and endangered species. They typically do not regulate or get involved with TNR programs outside of protected wildlife areas.

Private 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. These groups are often actively involved in lobbying for public policy changes that affect vulnerable wildlife species. 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. See the Concerns about Wildlife section on page 22 for more details.

Veterinarians

Many veterinarians support the concept of TNR and may offer various forms of assistance, but they are also business owners who have a bottom line to meet. While many would like to offer discounted services or to expand their offerings for community cats, they still need to make a living.

The involvement of local veterinarians is a key component of any sterilization program. Communities and organizations need to understand the unique challenges of the veterinary community and to consult local veterinarians when drafting program plans. 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

"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 life-saving 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 Association Veterinary Advisor, Oregon, WI

hires a staff veterinarian, you should continue to work with other 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.

The Public

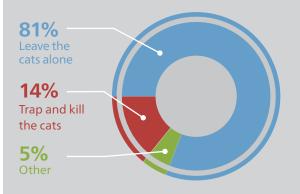
Most people care about cats and want to see

them treated humanely. Communities that embrace effective cat management programs will be rewarded with goodwill from their residents. Many communities are learning about 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.

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, which agencies can help facilitate. Animal control officers can be an integral part of this approach, or if there are no resources to support this, other successful models include enlisting the aid of a local nonprofit to help mediate cat-related conflicts.

Large-scale sterilization programs depend on volunteer support. A significant portion of the public (approximately 10% to 12%) already feeds community cats (Levy & Crawford, 2004) and might be willing to help, especially when low-cost, high-quality sterilization programs are available. Non-lethal management programs will be readily supported by the majority in your community, while lethal control will not 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. Agencies that do not recognize the need to adopt nonlethal solutions often become the focal point of community criticism over high levels of cat euthanasia in the shelter.

UN-OWNED CATS IN THE STREET?



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

SEVEN IN 10 PET OWNERS



say they believe animal shelters should be allowed to euthanize animals only when they are too sick to be treated or too aggressive to be adopted.

Only a quarter of the people who took part in a recent *AP-Petside.com* poll said animal shelters should sometimes be allowed to euthanize animals as a population control measure (*ap-gfkpoll.com/featured/ap-petside-com-latest-poll-findings*, conducted Oct. 13–17, 2011).

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 or Relocate

Trap and remove may at first glance seem to be the logical approach to solving community cat problems. However, unless it is consistently performed with very high levels of resources and manpower and addresses over 50% of a targeted population, it doesn't offset the root of the problem: ongoing reproduction of un-trapped cats (Andersen et al, 2004). The resources (money, manpower, 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 band-aid on the problem and further distance from real solutions.

Moreover, while some advocates of this approach claim that the cats just need to be removed and placed elsewhere, there is no "elsewhere." Relocating cats is a complex task that is usually unsuccessful and creates more problems than it resolves. The vast majority end up "relocated" to shelters that have no other recourse but to perform euthanasia. Euthanasia in shelters is typically performed to end the lives of ill, dangerous, or suffering animals in a humane manner. When euthanasia is performed on healthy but unsocialized cats, it can be characterized as unnecessary, calling into question whether their deaths are actually humane.

Opposition from many in the community who oppose killing cats and insufficient resources to achieve the level of removal/euthanasia necessary to actually achieve results can often prove to be insurmountable barriers to lethal control programs. Communities that use trap and euthanize strategies typically do not realize 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.

Feeding Bans

The logic behind banning the feeding of outdoor cats is that if no one feeds them, they will go away. However, this doesn't work because 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 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.

"As a nation, we have over 50 years of witnessing the ineffectiveness of trap and kill programs and their inability to reduce community cat numbers. It's time we try the only method documented to work—TNR."

Miguel Abi-hassan, Executive Director,
 Halifax Humane Society,
 Daytona Beach, FL

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.



"Bans on feeding feral cats do nothing to manage their numbers. Bans force feral cats to forage though trashcans and kill wildlife, such as birds, squirrels, and rabbits. Establishing feeding stations ensures a healthier colony and allows a human being to interact with the colony and provide care for any cat that is under stress or who needs medical attention. Feeding stations also bring feral cats to a central location and help establish a trust, making trapping [for sterilization] an easier task."

—Wayne H. Thomas, Councilman, Hampstead, MD

Instead, they're cared for by volunteer resident caretakers who happen upon them. 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 protect those who do so.

Caretakers don't choose how many cats there are, 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. Requiring community cats to be licensed by caretakers is a bad idea from an enforcement and compliance standpoint, and forcing caretakers to register colony locations often causes people concerned for the cats' welfare to go underground and off the municipal radar screen. Additionally, catlicensing projects rarely pay for themselves and further drain already limited resources. Policies that impose penalties on caretakers are barriers to sound community cat management. However, proactive, non-lethal control programs can enlist the support of caretakers by gaining their trust, and they can in turn provide data on the cats people care for.

Relocation and Sanctuaries

Some individuals or organizations may call for un-owned cats to be relocated or placed in sanctuaries. While this may seem like a humane alternative to lethal control, it is unrealistic due to the sheer numbers of

"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, VP Denver Borough Council, PA cats in communities. Relocation is time-consuming and usually unsuccessful. Cats are strongly bonded to their home areas and may try to return to their outdoor homes. In addition, if the food and shelter that initially attracted the cats cannot be removed, other unsterilized cats will move in to take advantage of the available resources.

Some shelters and rescues have implemented successful barn cat programs, where unsocialized cats can be relocated to barns and farms to provide rodent control. But these programs require management and are by their nature limited. They can't address the large number of un-owned cats in the community.

Sanctuaries might be available in some areas, but those that provide quality care for animals quickly fill to capacity and are too expensive to maintain for large numbers of un-owned cats. Cat populations vastly out-scale availability at sanctuaries, making them an unrealistic option in most cases. Many unfortunate examples exist of sanctuaries that grew too large and resulted in neglect and cruelty. Moreover, these organizations cause an additional burden on communities, requiring law enforcement intervention and resulting in a large group of cats again needing to be removed and relocated. If you are able to secure a spot in a sanctuary, always visit it in person before sending the cat there, to ensure that all animals receive proper and humane care.

MANAGING COMMUNITY CAT POPULATIONS: WHAT DOES WORK

Properly managed sterilization-vaccination programs do not create 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 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 take action 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. The HSUS 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:

TNR

Trap-Neuter-Return and its variants are non-lethal strategies intended to reduce the numbers of community cats, improve the health and safety of cats, and reduce impacts on wildlife. At minimum, TNRed community cats are spayed or neutered so they can no longer reproduce, vaccinated against rabies, marked to identify them as sterilized (the

universally recognized sign of a sterilized cat is an ear-tip, a surgical removal of the top quarter inch of the of the cat's ear, typically the left), and returned to their home territory.

Community-wide TNR programs are effective because they:

- Halt reproduction of existing cats through sterilization, leading to long-term management, reduction and eventual elimination of outdoor cat populations
- Vaccinate cats against rabies (and other diseases, depending on available resources), addressing 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
- May in some instances create an immediate reduction in cats due to:
 - Kittens young enough to be socialized can be routed into adoption channels, depending on available shelter or rescue resources
 - Friendly adult cats being evaluated for potential reunification with lost owners, transition into home of caretakers, or rehoming through rescue and shelter channels depending on situation and resources and the input of caretakers and feeders bonded with the cats
 - Both of these options are recommended only if a live outcome for the cats is likely. If that is not the case we recommend sterilization, vaccination, and return to territory for all cats.
- 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 colony cats (cats living together in a given territory) and allow caretakers to trap new cats who join the colony for TNR or other live-outcome options

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 GIS software, we are now able to 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.

Through an assessment of the data for a given community, geographical "hotspots" 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.

"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, Program Manager, PetSmart Charities, Phoenix, AZ



Animal Control/ Shelter Innovations

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 pet owners with low incomes, 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. Most citizens want to do the right thing for their cats, but barriers such as cost or transportation exist in communities across the country. In order to truly address cat overpopulation, these barriers need to be removed for all members of our communities.

"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



Services for Pet Owners

Services for pet owners in the community must be accessible to all residents. They should include preventative and wellness care, such as vaccinations, tips for finding pet-friendly rental housing, and information on keeping pets in their homes by resolving unwanted behaviors and managing allergies. It's important to promote keeping cats indoors and using collars, visible identification, and possibly microchipping for pet cats so that those who do go missing can be reunited with their families. It's also important to let community members know that shelters and rescue groups provide adopters with resources when they face problems with their cats. Shelters and rescues can provide behavior assistance and potentially medical assistance when cats face severe injury or disease.

Collaboration

Each community is different. There is no onesize-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. 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 towards shelters; and more lives saved.



"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, Director, Multnomah County Animal Services, Troutdale, OR

ADDRESSING CONCERNS ABOUT COMMUNITY CATS

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. The cost of TNR is often covered out-of-pocket by individuals who care about community cats and by nonprofit organizations. But animal care and control agencies and nonprofit organizations with self-funded TNR programs have often found the cost of TNR less expensive than admitting, holding, euthanizing, and disposing of healthy cats. The money saved can be put towards more TNR. There are also many grant opportunities available for targeted TNR programs that can offset budgets and improve efforts.

Concern

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

A municipality would be liable for an injury or damage only if it committed an act of negligence. Implementing or permitting a TNR program to reduce the community cat population and resolve nuisance complaints is reasonable government behavior, not negligent conduct. 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.

Even if a person is bitten or scratched, a TNRed cat likely would have been vaccinated against rabies. Rabies prophylaxis treatment will likely still be advisable, 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. At least 34 states require rabies vaccination for cats, and efforts should be made to revaccinate cats when possible (AVMA, 2013).

Community cats transmit diseases

Many animals, both wild and domestic, can pass diseases to people. Rabies is a disease of significant concern, and focusing on prevention is the best medicine. Vaccination against rabies should be

a standard protocol for TNR practitioners.

According to the Centers for Disease Control and Prevention (CDC, 2013), 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 (CDC, 2013). In the United States, human fatalities associated with rabies occur in people who fail to seek medical assistance, usually because they were unaware of their exposure. Modern day prophylaxis has proven nearly 100% successful (CDC, 2013). The CDC also reports that the number of reported cases of rabies is decreasing in both wild and domestic animals. In 2010, wild animals accounted for 92% of reported cases of rabies (CDC, 2013). The World Health Organization hasn't recommended removing dogs to control rabies since 1983 because vaccine programs have been more successful (WHO, 1984).

Although the majority of rabies cases occur in wildlife, domestic animals are the source of the majority of human cases that require post-exposure treatment because people are more likely to handle unknown dogs and cats than wildlife. Most rabies cases in cats occur in areas with large raccoon populations, like the Northeast.

Vaccinating community cats against rabies as part of a TNR program should be supported as a preventative measure against the potential spread of the disease. Some public health officials have concerns about revaccinating community

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; Roebling et al., 2014)



cats when vaccines expire. Because the lifespan of community cats is typically much shorter than that of pet cats, a vaccine with three-year immunity may provide protection for the life of many community cats. It's clearly better than no vaccine at all. Well-managed programs should attempt to re-trap cats for further vaccinations. These programs also have the benefit of potentially reducing cat roaming. They can manage feeding so that fewer people come into contact with the cats. In this way, while the risk of rabies transmission from cats may not be entirely eliminated, it can be significantly reduced.

Sterilized cats are typically healthier overall (Scott et al., 2002) and have greater immunity against a host of other diseases and parasites (Fischer, et al., 2007). Sterilized cats are also less likely to transmit feline diseases that are largely spread through mating behavior and matingrelated fighting (Finkler, et al., 2011). 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. Not all states have mandatory rabies vaccination laws for cats, so it is important to determine whether your state does (or should). You should offer low-cost vaccination options for low-income cat owners. Refer to the appendix for additional public health information and documents about rabies and other diseases.

Cats will continue to be a nuisance to residents

With TNR, nuisance behaviors can be drastically reduced or eliminated. Neutered cats typically don't yowl late at night or fight over mates (Finkler et al., 2011), so noise is greatly reduced. The odor from male urine spray 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 much less frequently (Scott et al., 2002) and become less visible. Because they can no longer reproduce, over time there will be fewer cats, which in itself will result in fewer nuisance behaviors, complaint calls, and a reduced impact on wildlife.

To prevent community cats from entering areas where they're unwanted, such as yards or gardens, residents can try blocking access to shelter areas and securing garbage containers. If these solutions don't work, many humane cat-deterrent products are available in stores and online. Check the appendix for a list of simple solutions to common complaints.

Remember that many cat nuisance cases are the result of neighbor disputes. Facilitating dialogue and mutually agreed-upon resolutions in those cases is often a much more effective outcome than removing the cat(s) in question.



TNR is illegal in our community

Some existing ordinances may have components that pose barriers to practicing TNR. Ordinances are typically written for pet cats, so it's important to review local and state laws to know where amendments are needed to allow your community to implement TNR. 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. In order for an effective TNR 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. Our website and the appendix include examples.

Even when conflicting regulations don't exist, some municipalities may still choose to enact an ordinance authorizing TNR and defining the roles and duties of all parties. Or a community might prefer, as a matter of local culture, to allow TNR informally. In such cases, a TNR ordinance might be unnecessary and actually hinder the functioning and growth of an already successful program.

The goal of a TNR ordinance is a successful sterilization program. 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.

"Carroll County has a law that is in effect in Hampstead, which states 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

Welfare of 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. However, a growing body of evidence suggests that this is not the case. Data from clinics that sterilized more than 100,000 cats nationwide revealed that they are generally fit and healthy, with less than one percent requiring euthanasia to end

suffering (Wallace & Levy, 2006). Common feline diseases, such as feline immunodeficiency virus (FIV) or feline leukemia virus (FeLV), occur at the same rate as in the pet cat population (Lee et al., 2002). Our article "Keeping Feral Cats Healthy" (animalsheltering.org/resources/magazine/sep_oct_2008/keeping_feral_cats_healthy.html) offers more details.

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. Practical solutions include humanely reducing cat populations using TNR 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 are the same. For example, cats may need to be removed 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

(e.g. in Portland, Oregon, and New Jersey) that communities might seek to follow. It is not always easy to arrive at a solution that protects all interests to the greatest extent. Effective TNR programs seek to reduce the population of community cats, eventually bringing it to zero. Although TNR might not work as quickly as some would like, there are numerous successful examples of population reduction.

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 catproof 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.

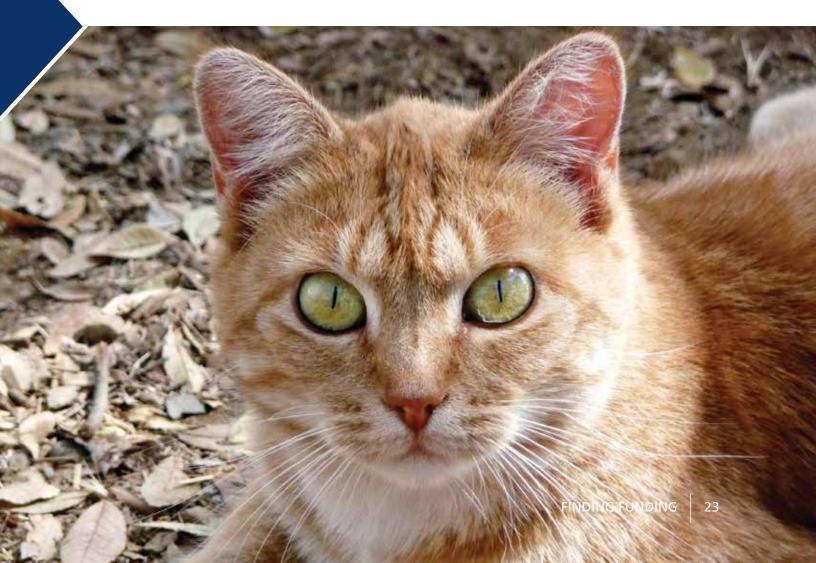
FINDING FUNDING

Adequate funding is critical to a successful TNR program. When all stakeholders are engaged in targeted efforts to reduce cat populations they'll likely offer resources to help the program succeed. Municipalities that operate TNR programs through their agency or a contracting agency should include funding for these activities in the budget, but financial assistance and grant opportunities can offset budgets and help stretch dollars. A successful community TNR program can also generate savings through lower intake and euthanasia—funds that can help the program continue running.

If an incorporated nonprofit animal welfare organization runs the TNR program, it can raise funds through direct mail, grants, and special events. Many grant-making organizations

exist; some provide grants to government agencies, whereas others focus their efforts on nonprofit organizations. Many states have local or statewide community foundations that may support a program that encompasses law enforcement, public health, animal welfare, and wildlife conservation. Grant-makers are very interested in collaborations between private organizations and municipal agencies—an additional incentive to partnerships between those stakeholders.

For a list of grant-making agencies to get you started, please check out our list in the appendix. You can find information on necessary supplies, vaccines, etc. that require funding in the Neighborhood Cats Handbook (neighborhoodcats.org/uploads/File/Resources/NC TNR Handbook_WEB_v5-4.pdf).



FINAL THOUGHTS

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 non-lethal 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 towards 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.

"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

SELECTED SCIENCE ON COMMUNITY CATS

In the ongoing and polarized dialogue concerning the role of non-lethal 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 non-lethal 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, Senior Scientist, Wildlife
 Protection, The Humane Society of the United States

TNR Reduces Cat Numbers

An 85% reduction in population over 11 years Before implementing a TNR program on the University of Central Florida campus, periodic trap and removal efforts tried to keep the population at bay when it increased to nuisance levels. This 11-year study followed a population of 155 free-roaming campus cats from 1991, when the TNR program began, to 2002. 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, 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 et al., 2003).

TNR can control feral cat populations

Robertson reviewed the scientific literature on feral cats and feral cat control and concluded that there is scientific evidence that, under certain conditions, TNR can control feral cat populations. The practice of TNR on a far greater scale, as well as continued and increased funding and endorsement of TNR by private welfare organizations and municipal and government agencies, is essential for the success of TNR (Robertson, 2008).

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 trapand-euthanize approach. Two years after a traptest-vaccinate-alter-return-monitor (TTVARM) 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 TTVARM 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 and Slater, 2002).

Trap-and-remove efforts can have the opposite effect

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., 2014).

TNR Reduces Nuisance Behaviors and Complaints

Neutered free-roaming males exhibit less aggression

This study compared four free-roaming cat colonies in urban Israel: two that were managed by TNR and two that were not managed at all. Less aggression was observed in the neutered groups, specifically between males, which resulted in reduced fighting and vocalizations. The study concludes that TNR reduced the noise associated with mating and fighting and could lead to fewer nuisance complaints (Finkler et al., 2011).

Reduced nuisance behaviors in reality and perception

Researchers at a federal facility and hospital in Louisiana studied 41 cats in a TNR program. Three years later, 30 of the original cats remained. Their overall health had improved and nighttime vocalizations were greatly reduced, and no new litters of kittens were found. Although cats were seen as a nuisance prior to the program, human attitudes changed by the end of the three-year period (Zaunbrecher and Smith, 1993).

TNR Adoption and Return-to-Field Programs Reduce Shelter Intake and Euthanasia

Dramatically reduced shelter intake, impound and euthanasia numbers

This study examined the impact of a municipal shelter's Return to Field program in San Jose, California. These programs are shelter-based and include sterilizing, vaccinating, ear tipping and returning healthy, impounded community cats to the place they were found, with or without an identified caregiver. Over four years, the shelter's program garnered decreases in cat intakes (from 70% to 23%), cat and kitten impounds (by 29.1%) and euthanasia for Upper Respiratory Disease (by 99%) (Johnson and Cicirelli, 2014).

Significant reductions in shelter intake and euthanasia numbers

A two-year program in Alachua County, Florida, was implemented to capture and neuter at least 50% of the estimated community cats in a single zip code. If the cats were friendly, they were adopted out. If not, they were returned to the area. Researchers then compared trends in shelter cat intake from the target zip code to those of the rest of the county. After two years, per capita shelter intake was 3.5 times higher and per capita shelter euthanasia was 17.5 times higher in the non-target area than in the target area. Clearly, high-impact targeted TNR combined with the adoption of socialized cats and nuisance resolution counseling for residents is an effective tool for reducing shelter cat intake (Levy et al., 2014).

TNR's Effects on Community Cats and Disease

Including vaccinations in TNR programs can protect feral cats for many years

A TNR program for feral cats in Florida included vaccinations at the time of sterilization. Researchers were able to compare a cat's antibody titers (a measurement that indicates the strength of the body's immune response to a given disease) before the vaccinations and then 10 weeks postvaccination. Many cats had an excellent immune response, indicated by the increase in protective antibody titers post-vaccination: panleukopenia (90%), herpes (56%), calicivirus (93%) and rabies (98%). Other studies have shown that postvaccination immunity persists for a minimum of three to seven years in most cats, which means that many feral cats are protected for much of their remaining lifespan. The authors conclude that TNR programs that include vaccinations are likely to protect individual cats and possibly reduce diseases in feral cats in general (Fischer et al., 2007).

Unowned free-roaming cats don't have higher FeLV infection rates than owned cats

In this study, 1,876 unowned free-roaming cats who were treated in TNR programs in North Carolina and Florida were tested for FeLV infection and FIV antibodies. The results indicate that the prevalence of FeLV infection and FIV antibodies in unowned free-roaming cats are similar to infection rates reported for owned cats (Lee et al., 2002).

The secondary effects of neutering can improve community cat welfare

Body condition scores can help evaluate a cat's overall healthy and welfare. This study analyzed the body condition of 105 adult feral cats at the time of neutering and found that they were lean

(but not emaciated). Fourteen of the original cats were trapped one year later and showed significant increases in weight and improvements in body condition similar to those of confined pet cats. Caretakers also noted that neutered cats roamed less. The researchers conclude that in addition to halting reproduction, neutering may have other effects that improve the welfare of community cats (Scott et al., 2002).

Despite popular belief, toxoplasmosis is not definitively associated with exposure to cats

According to the authors, the transmission of toxoplasmosis from cats to people rarely occurs from direct contact. They state that people most commonly acquire toxoplasmosis by eating the cyst form of toxoplasmosis in undercooked meat. A case study of toxoplasmosis in pregnant women did not show a significant association with having an adult cat or kitten at home, cleaning the litter box or having a cat who actively hunts. The authors also cite a study of HIV-infected adults that did not show any association of toxoplasmosis with cat ownership or exposure (Kravetz and Federman, 2002).

Public Perceptions

American adults favor the non-lethal treatment of community cats

Adults in a national survey conducted by Harris Interactive were given two options: leave a community cat as-is or catch and kill the cat. More than four out of five people thought it was more humane to leave the cat. The survey then added a twist: what if the community cat would die two years later after being hit by a car? More than 70% of respondents still chose to let the cat remain in the community. The authors conclude that an overwhelming majority of Americans believe that leaving a stray cat outside to live out his life is more humane than having him caught and killed (Chu and Anderson, 2007).

Wildlife management practices should be based on shared opinions

Conflicts over cat management practices often prevent or delay the implementation of policies that could reduce cat populations, improve animal welfare and reduce risks to wildlife. This study reveals the differences of opinion that lead to these conflicts, specifically among Audubon members, the public and TNR program participants. They also note areas of agreement among the groups and suggest that stakeholders focus on these shared opinions when developing policies. For example, mandatory pet identification, rabies vaccination and non-lethal methods of management could satisfy all groups (Wald et al., 2013).

Wildlife Predation

Opposing parties should compromise on cat management approaches

The authors suggest ways that conflicts between cat colony caretakers and bird conservation professionals can be managed more productively. For example, bird conservation professionals' values could guide cat colony management in high conservation priority areas, whereas cat colony caretaker values could guide management in low conservation priority areas. The authors conclude that bird conservation professionals must develop innovative and collaborative ways to address threats posed by feral cats instead of advocating for euthanasia in all situations (Peterson et al., 2012).

Current methods of measuring predation rates could be inaccurate

This study found that many cat owners overestimate their cats' predation rates. The authors conclude that surveying predation rates with questionnaires alone isn't sufficient since the self-reported numbers aren't always accurate. They note that further extended studies are needed, especially in

large urbanized areas with varied habitat types, cat densities and prey availability. The authors recommend using the "what the cats brought home" method at a larger scale in time and space. At a larger scale, this method would more accurately assess the seasonal variation in predation rates, individual hunting behavior throughout the year and the actual impact of cat predation on prey populations (Tschanz et al., 2011).

RESOURCES

Citations

Andersen, M.C., B.J. Martin and Roemer, G.W. (2004). Use of matrix population models to estimate the efficacy of euthanasia versus trap-neuter-return for management of free-roaming cats. *Journal of the American Veterinary Medical Association*, 225, 1871–1876.

Andersen, L., Nicholson, K., Tauxe, R., and Winkler, W. (1984). Human Rabies in the United States, 1960 to 1979: Epidemiology, Diagnosis, and Prevention. *Annals of Internal Medicine*, 100, 728-735.

APPA (2012). National Pet Owners Survey. Greenwich, CT: American Pet Products Association. Retrieved from http://americanpetproducts.org/pubs_survey.asp.

ASPCA. The 2012 ASPCA Rachael Ray \$100K Challenge: A Fact Sheet. Retrieved November 22, 2013, from http://www.challenge.aspcapro.org/sites/default/files/applicants/aspca_2012challenge_factsheet.pdf.

AVMA. *Rabies State Law Chart.* Retrieved December 3, 2013, from http://www.avma.org/Advocacy/StateAndLocal/Documents/Rabies state law chart.pdf.

AVMA (2012). *U.S. Pet Ownership & Demographics Sourcebook: 2012 Edition*, Schaumberg, IL: American Veterinary Medical Association.

Blanton, J., J. Dyer, J. McBrayer and Rupprecht, C. (2012). Rabies surveillance in the United States during 2011. *Journal of the American Veterinary Medical Association*, *241*, 712–722.

California Department of Public Health. *Local Rabies Control Activities*. Retrieved December 3, 2013, from http://www.cdph.ca.gov/HealthInfo/discond/Pages/LocalRabiesControlActivities.aspx.

CDC. *Rabies in the United States*. Retrieved November 22, 2013, from http://www.cdc.gov/rabies/location/usa/.

Chu, K. and Anderson, W.M. (2007). *Public Opinion on Humane Treatment of Stray Cats*. (Law & Policy Brief). Bethesda, MD: Alley Cat Allies. Retrieved from http://www.alleycat.org/page.aspx?pid=357.

Finkler, H, Gunther, I, and Terkel, J. (2011). Behavioral differences between urban feeding groups of neutered and sexually intact free-roaming cats following a trap-neuter-return procedure. *Journal of the American Veterinary Medical Association*, 238, 1141–1149.

Fischer S.M., Quest C.M., Dubovi E.J., Davis R.D., Tucker S.J., Friary J.A., Crawford P.C., Ricke T.A. and Levy J.K. (2007). Response of feral cats to vaccination at the time of neutering. *Journal of the American Veterinary Medical Association*, 230, 52–58.

The Humane Society of the United States. *Pet Overpopulation Facts*. Retrieved November 22, 2013, from http://www.humanesociety.org/issues/pet_overpopulation/facts/pet_ownership_statistics.html.

Hughes, K.L. and Slater, M.R. (2002). Implementation of a feral cat management program on a university campus. *Journal of Applied Animal Welfare Science*, *5*, 15-28.

Hurley, K. and Levy, J. *Feline Shelter Intake Reduction Program FAQs*. Retrieved November 25, 2013, from http://www.maddiesfund.org/Maddies_Institute/Articles/Feline_Shelter_Intake_Reduction_Program_ FAQs.html.

Johnson, K.L. and Cicirelli, J. (2014). Study of the effect on shelter cat intakes and euthanasia from a shelter neuter return project of 10,080 cats from March 2010 to June 2014. *PeerJ, 2:e646*, http://dx.doi.org/10.7717/peerj.646.

Koret Shelter Medicine Program. Shelter and Outdoor Cat Population Calculator. Retrieved December 3, 2013, from http://www.sheltermedicine.com/documents/shelter-and-outdoor-cat-population-calculator.

Kravetz, J.D. and Federman, D.G. Cat-associated zoonoses. Archives of Internal Medicine, 162(17), 1945-1952.

Lazenby, B.T., Mooney, N.J., and Dickman, C.R. (2014). Effects of low-level culling of feral cats in open populations: a case study from the forests of southern Tasmania. *Wildlife Research*, *41*, 401-420.

Lee, I.T., Levy, J.K., Gorman, S.P., Crawford, P.C. and Slater, M.R. (2002). Prevalence of feline leukemia virus infection and serum antibodies against feline immunodeficiency virus in unowned free-roaming cats. *Journal of the American Veterinary Medical Association*, 220, 620-622.

Levy, J.K. and Crawford, P.C. (2004). Humane strategies for controlling feral cat populations. *Journal of the American Veterinary Medical Association*, 225, 1354–1360.

Levy, J.K., Gale, D.W., and Gale, L.A. (2003). Evaluation of the effect of a long-term trap-neuter-return and adoption program on a free-roaming cat population. *Journal of the American Veterinary Medical Association*, 222, 42-46.

Levy, J.K., Isaza, N.M., and Scott, K.C. (2014). Effect of high-impact targeted trap-neuter-return and adoption of community cats on cat intake to a shelter. *The Veterinary Journal*, 201, 269-274.

Loyd, K.T. and DeVore, J.L. (2010). An evaluation of feral cat management options using a decision analysis network. *Ecology and Society, 15*(4), 10. Retrieved from http://www.ecologyandsociety.org/vol15/iss4/art10/http://www.ecologyandsociety.org/vol15/iss4/art10/.

Peterson M.N., Hartis B., Rodriguez S., Green M. and Lepczyk C.A. (2012). Opinions from the front lines of cat colony management conflict. *PLoS ONE*, 7:e44616.. doi:10.1371/journal.pone.0044616.

PetSmart Charities. *Free-Roaming Cats Can Bring Communities Together*. Retrieved November 22, 2013, from http://www.petsmartcharities.org/pro/pci-stories/free-roaming-cats-can-bring-communities-together.

Robertson, S.A. (2008). A review of feral cat control. Journal of Feline Medicine and Surgery, 10, 366-375.

Roebling, A.D., Johnson D., Blanton J.D., Levin M., Slate D., Fenwick G. and Rupprecht C.E. (2014). Rabies Prevention and Management of Cats in the Context of Trap-Neuter-Vaccinate-Release Programmes. *Zoonoses and Public Health*, *61*(4), 290-296.

Rowan, A. (2013). *Cat Demographics in USA*. Presented to Society of Animal Welfare Administrators Conference.

Rowan, A. (2012). The Business of Animal Protection. HSUS Animal Care EXPO, Las Vegas, NV.

Scott K.C., Levy J.K., and Gorman S.P. (2002). Body condition of feral cats and the effect of neutering. *Journal of Applied Animal Welfare Science*, *5*, 203-213.

Tschanz, B., Hegglin, D., Gloor, S. and Bontadina F. (2011). Hunters and non-hunters: skewed predation rate by domestic cats in a rural village. *European Journal of Wildlife Research*, *57*, 597-602.

Wald, D.M., Jacobson, S.K., and Levy J.K. (2013). Outdoor cats: identifying differences between stakeholder beliefs, perceived impacts, risk and management. *Biological Conservation*, *167*, 414–424.

Wallace, J.L., and Levy, J.K. (2006). Population Characteristics of Feral Cats Admitted to Seven Trap-Neuter-Return Programs in the United States. *Journal of Feline Medicine and Surgery, 10*, 279–284.

WHO Expert Committee on Rabies (1984). *World Health Organization Technical Report Series 709*. Retrieved November 22, 2013, from whglibdoc.who.int/trs/WHO_TRS_709.pdf.

Zaunbrecher, K.I. and Smith, R.E. (1993). Neutering of feral cats as an alternative to eradication programs. *Journal of the American Veterinary Medical Association*, 203, 449-452.

Appendix

TNR is supported by The Humane Society of the United States and many other national groups, including:

Alley Cat Allies

American Animal Hospital Association

American Association of Feline Practitioners

American Humane Association

American Society for the Prevention of Cruelty to Animals (ASPCA)

Association of Shelter Veterinarians

Best Friends Animal Society

Cat Fanciers' Association

Humane Society Veterinary Medical Association

National Animal Control Association

Petco Foundation

Petfinder

PetSmart Charities

Find Local Organizations and Agencies in the United States and Canada Supporting TNR humanesociety.org/assets/maps/feral-cats.html

Find Grant Opportunities for Organizations and Agencies animalsheltering.org/how-we-help/strengthen-your-shelter/financial-assistance/grant_listings.html

Links Found Throughout the Document

Municipal Programs

Pittsburgh, PA: pittsburghpa.gov/animalcontrol/spay_neuter.htm

Elk Grove, CA: elkgrovecity.org/animals/feral-cats.asp

Dallas, TX: dallasanimalservices.org/trap_neuter_return.html

Sacramento County, CA: animalcare.saccounty.net/SpayNeuter/Pages/FeralCatsandKittens.aspx

San Jose, CA: sanjoseca.gov/index.aspx?nid=2382

Camden County, NJ: ccasnj.org/spay_neuter_clinic/feral_cats.html

Departments of Health

New York City, NY: nyc.gov/html/doh/html/environmental/animals-tnr.shtml

State of New Jersey: state.nj.us/health/animalwelfare/stray.shtml

Baltimore, MD: neighborhoodcats.org/uploads/File/Resources/Ordinances/Baltimore_TNRRegs.pdf

State of Delaware: dhss.delaware.gov/dhss/dph/oaw/foundstraycats.html

Articles

Baker, J. Staying Centered in San Jose. Animal Sheltering May/June 2008; 18–19. animalsheltering.org/resources/magazine/may_jun_2011/staying_centered_in_san_jose.html

Hettinger, J. Taking a Broader View of Cats in the Community. Animal Sheltering September/October 2008; 8–9. animalsheltering.org/resources/magazine/sep_oct_2008/taking_a_broader_view_of_cats.html

Hurley, Dr. K. For Community Cats, A Change is Gonna Come. Animal Sheltering September/October 2013; 24–31. animalsheltering.org/resources/magazine/sep_oct_2013/asm-sep-oct-2013/for-community-cats-a-change.html

Marulli, R. *Trailer Park Tails*. *Animal Sheltering* July/August 2012; 41–46. animalsheltering.org/resources/magazine/mar_apr_2007/trailer_park_tails.html

Peterson, N. The Challenge of a Rural TNR Project. Animal Sheltering Nov/Dec 2013; 24–28. animalsheltering.org/resources/magazine/nov-dec-2013/asm-novdec-2013/the-challenge-of-a-rural-tnr.html

Peterson, N. Worth Every Scent. Animal Sheltering Nov/Dec 2013; 14–15. animalsheltering.org/resources/magazine/nov-dec-2013/asm-novdec-2013/worth-every-scent.html

Peterson, N. Yes, in our Backyard, Animal Sheltering Jan/Feb 2013; 32–34 animalsheltering.org/resources/magazine/jan-feb-2013/asm-jan-feb-2013/yes-in-our-backyard.html

Peterson, N. Out of the Trash Can, Into the Clinic. Animal Sheltering March/April 2012; 8. animalsheltering.org/resources/magazine/mar_apr_2012/people-power-out-of-the-trash-can.html

Peterson, N. Talking TNR. Animal Sheltering July/August 2012; 41–46. animalsheltering.org/resources/magazine/jul_aug_2012/101-dept-talking-tnr.html

"Cats and Wildlife: An HSUS Perspective" hsus.typepad.com/wayne/2013/01/cats-wildlife-hsus-perspective.html

"Finding Common Ground: Outdoor Cats and Wildlife" humanesociety.org/news/news/2011/11/ferals_wildlife.html

"Prowling the Divide" animalsheltering.org/resources/magazine/jul_aug_2009/creature_feature_prowling_the_divide.html

"Keeping Feral Cats Healthy" Animal Sheltering September/October 2008; 51–53 animalsheltering.org/resources/magazine/sep_oct_2008/keeping_feral_cats_healthy.html

Videos

"Fixing Cat Overpopulation" youtube.com/watch?v=fTCTuJRkvng

"How to Perform a Mass Trapping" neighborhoodcats.org

Other Online Resources

The HSUS's Position Statement on Cats

humanesociety.org/animals/cats/facts/cat_statement.html

FAOs

humanesociety.org/issues/feral_cats/qa/feral_cat_FAQs.html

Handouts

"Can You Help This Cat?" marketplace.animalsheltering.org/product/can_you_help_this_cat

"Helping Homeless Cats" handout in English and Spanish (can be printed on both sides of paper) humanesociety.org/assets/pdfs/pets/helping-homeless-cats_english.pdf humanesociety.org/assets/pdfs/pets/helping-homeless-cats-spanish.pdf

Self-Paced Online TNR Course for Caretakers and Webinar Series humanesociety.org/outdoorcats

Community Assessment Toolkit: HSUS Pets for Life program animalsheltering.org/how-we-help/work-for-change/pets-for-life/pets-for-life-toolkit.html

Community cat information sheets on cat ordinances, protecting public health, rabies concerns, humane deterrents, and more can be found on our website: humanesociety.org/outdoorcats

Books (Available at marketplace.animalsheltering.org)

Publicity to the Rescue shows how you can use the power of publicity to raise more money, recruit volunteers, and boost adoptions.

Coalition Building for Animal Care Organizations describes how coalition building can maximize the positive impact of animal-related organizations on their communities. The book demonstrates that, by finding common ground and putting aside their differences, groups can tackle difficult problems that can't be solved by any one agency.

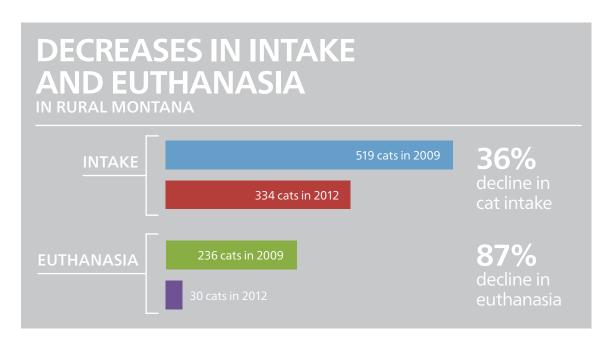
Fund-Raising for Animal Care Organizations demystifies the fund-raising process and breaks down this daunting task into practical, manageable steps.

Funds to the Rescue will save you from wasting time as you search for new revenue streams to support your humane organization. The book begins with "The Hows and Whys of Fundraising" and follows with 101 entertaining and creative ideas.

Neighborhood Cats Handbook, 2nd Edition: neighborhoodcats.org/RESOURCES BOOKS AND VIDEOS

Data from Successful Targeted TNR Programs

(Provided by PetSmart Charities)



Group: Fox Hollow Animal Project

Target area: Ravalli County, MT (pop. 40,000; 2400 sq. miles)

Project: 1,329 spays/neuters of community cats from July 1, 2010 through 2012

Results: Cat intake from Ravilli County to the Bitter Root Humane Association (open admission) went from 519 in 2009 to 334 in 2012 (36% decline) and cat euthanasia went from 236 in 2009 to 30 in 2012 (87% decline).

DECREASES IN COMPLAINT CALLS IN RURAL MONTANA 1,032 calls in 2009 84% decline in cat-related calls

Group: Thompson River Animal Care Shelter (TRACS)

Target area: The five towns located in Sanders County, MT (pop. 11,000; 2700 sq. miles)

Project: 755 spays/neuters of community cats from July 1, 2010 through July 1, 2012

Results: Cat-related calls to TRACS, the only animal shelter in the county, went from 1,032

in 2009 to 166 in 2011 (84% decline).

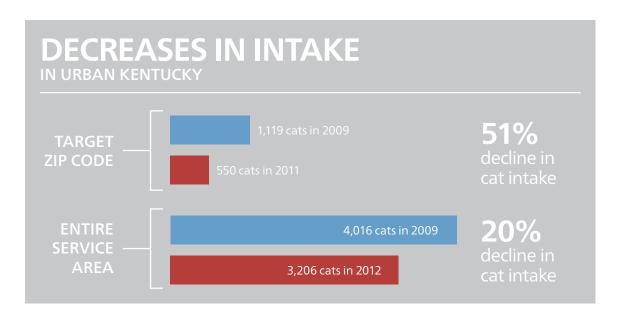


Group: PETS Low Cost Spay and Neuter Clinic **Target area:** Wichita Falls, TX (pop. 104,000)

Project: 1,188 spays/neuters of community cats from 2011 through 2012

Results: Community cat related complaint calls to Wichita Falls Animal Control

went from 1,958 in 2010 to less than 200 in 2012 (at least 90% decline).



Group: Alley Cat Advocates

Target area: Began as one zip code in Louisville, KY (later expanded to total of five zip codes)

Project: 2,000 spays/neuters of community cats in the five zip codes

Results: Cat intake excluding owner surrenders from the original zip code to Metro Animal Services went from 1,119 in 2009 to 550 in 2011 (51% decline). Cat intake excluding owner surrenders in the rest of the shelter's service area went from 4,016 to 3,206 (20% decline). As a result of the project, the Councilwoman for the original target zip code sponsored TNR-enabling ordinance that passed the City Council.

Other Organizations' Policies

American Animal Hospital Association, aahanet.org/Library/AAFPPosition.aspx

American Association of Feline Practitioners,

catvets.com/guidelines/position-statements/free-roaming-abandoned-and-feral-cats

American Humane Association,

americanhumane.org/assets/pdfs/about/position-statements/animal-position.pdf

American Society for the Prevention of Cruelty to Animals (ASPCA), aspca.org/about-us/aspca-policy-and-position-statements/position-statement-on-feral-cat-management

Association of Shelter Veterinarians,

sheltervet.org/wp-content/uploads/2012/11/FeralCommunityCatMgmt.pdf

Best Friends Animal Society, bestfriends.org/What-We-Do/Our-Work/Initiatives/Cat-Initiatives/

Cat Fanciers' Association, cfainc.org/CatCare/OverpopulationLegislativeIssues/FeralCats.aspx

Humane Society Veterinary Medical Association, hsvma.org/legislation#feralcats

National Animal Control Association, nacanet.org/guidelines.html#community

Petfinder, petfinder.com/helping-pets/feral-cats/what-is-a-feral-cat/

PetSmart Charities, petsmartcharities.org/pro/grants/spayneuter-grants/ free-roaming-cat-spayneuter-grants

This publication (*Managing Community Cats*) is intended to provide general information about community cats. The information contained in this publication is not legal advice and cannot replace the advice of qualified legal counsel licensed in your state. The Humane Society of the United States does not warrant that the information contained in the *Managing Community Cats* publication is complete, accurate, or up-to-date and does not assume and hereby disclaims any liability to any person for any loss or damage caused by errors, inaccuracies, or omissions.

This publication is the product of The Humane Society of the United States, which we are pleased to make available to ICMA members. The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of ICMA, updated October 2015.

About The HSUS

The HSUS is the nation's largest and most powerful animal protection organization—backed by 11 million Americans, or one in every 28.

Established in 1954, The HSUS seeks a humane and sustainable world for all animals, including people. We are America's mainstream force against cruelty, exploitation, and neglect, and also the nation's most trusted voice extolling the human-animal bond.

