

2015

Unowned Cat Management in the State of Ohio: Elements of Best Practice in Public-Private Collaborative Efforts

Daniel D. Spehar
Humane Society University

Follow this and additional works at: http://animalstudiesrepository.org/hsu_students

 Part of the [Animal Studies Commons](#), [Community-based Research Commons](#), [Demography, Population, and Ecology Commons](#), and the [Politics and Social Change Commons](#)

Recommended Citation

Spehar, Daniel D., "Unowned Cat Management in the State of Ohio: Elements of Best Practice in Public-Private Collaborative Efforts" (2015). *Student Thesis and Capstone Projects*. Paper 1.
http://animalstudiesrepository.org/hsu_students/1

This Thesis or Capstone Project is brought to you for free and open access by the Humane Society University at Animal Studies Repository. It has been accepted for inclusion in Student Thesis and Capstone Projects by an authorized administrator of Animal Studies Repository. For more information, please contact eyahner@humanesociety.org.

Unowned Cat Management in the State of Ohio:
Elements of Best Practice in Public-Private Collaborative Efforts

by

Daniel D. Spehar

A Thesis Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Master of Science
Animal Policy and Advocacy

at

Humane Society University

Washington, D.C.

July 2015

Acknowledgments

I would like to thank my supervisor, Kathleen Allspaw, for the wealth of advice and encouragement she provided during the course of this endeavor; Natalie DiGiacomo, John Dinon, John Hadidian, Bryan Kortis, Katie Lisnik, Linda Lord, and Andrew Rowan for supplying important reference material and/or stakeholder contact information; Candice Klotzsche and Claudia Allen for their diligent work in transcribing the recorded interviews; Corey Roscoe for reviewing my rough draft; and my wife, Diane, for her patience and support throughout the long process of completing this thesis project. Moreover, I would especially like to express my appreciation to the Ohio community cat stakeholders who participated in this study.

Abstract

A contentious debate over the management of free-roaming cat populations is ongoing. Nevertheless, disparate groups of stakeholders share a common goal of fewer community cats. Unowned cat management typically necessitates a choice between utilization of lethal or non-lethal measures. Research has indicated strong public support for employment of non-lethal methods, like trap-neuter-return (TNR). Collaborative TNR programs are experiencing success in a growing number of communities. The purpose of this exploratory study was to identify new or underutilized public-private collaborative practices, and associated elemental factors, that have the potential to be used as—or incorporated into—templates of best practice for the non-lethal management of unowned cats in Ohio. An additional objective was to uncover impediments to the implementation of collaborative programs. Semi-structured interviews were conducted with stakeholders as part of a qualitative approach. Participants representing ten humane societies/shelters, four county animal control agencies, a TNR-cat rescue group and a municipal government located in various parts of Ohio were interviewed over an eight-week period. A prevailing willingness on the part of stakeholders to collaborate and widespread support for non-lethal methods of unowned cat control were discovered. Moreover, a majority of stakeholders cited access to low-cost spay-neuter surgeries as essential to the initiation of TNR programs; multiple participants described lack of nearby access to such services as an impediment to conducting TNR. In addition, local ordinances preventing TNR were cited as substantial hindrances. Overall, significant potential within Ohio for expansion of collaborative non-lethal management programs for community cats seems to exist. Mitigation of impediments uncovered in this study will likely play an important role in leveraging this opportunity.

Table of Contents

Chapter 1: Introduction	
Brief History of Cats in the United States	1
Cats by the Numbers	1
Cat Classifications and Legal Status	2
Cats and Wildlife: Differing Perspectives	4
Risk of Zoonotic Disease	7
Management of Unowned Cats	8
This Study	14
Chapter 2: Literature Review	18
Stakeholders, Collaboration, and Community Cat Management Strategies	19
Types of Collaborative Relationships among Stakeholders	22
A Case Study and Other Documented Examples of Community-Wide Collaboration	
Case Study: High-Impact Targeted TNR in Alachua County, Florida	25
Return to Field (a.k.a. Feral Freedom), Jacksonville, Florida	27
Community Cats, Collaboration and TNR in Ohio	28
Summary and Evaluation of Relevant Literature	29
Chapter 3: Methods	32
Chapter 4: Results	
Description of Participants	35
Stakeholder Consensus: Unowned Cat Management is a Problem in Ohio	37
State of Collaborative Efforts to Manage Ohio's Unowned Cats	37
Collaboration between County Dog Wardens and Private Organizations	38
Collaboration between other Government Entities and Private Organizations	40
Collaboration among Private Humane Societies/Shelters and/or TNR-Cat Rescues	41
Identified Themes and Elements	
State Laws and Mandates as they pertain to Cats	42
Arguments in Favor of Changes to Current Ohio Laws/Mandates	44
Arguments in Opposition to Changes to Current Ohio Laws/Mandates	44
Local Laws and Ordinances	45
Perceptions about Available Methods of Unowned Cat Management	49
TNR	
General Attitudes	51
Effectiveness	53
Levels of Participation	55
Impediments	57
Targeted TNR	
General Attitudes	59
Effectiveness	60

Levels of Participation	62
Impediments	63
Return to Field	
General Attitudes	64
Effectiveness	65
Levels of Participation	65
Impediments	66
Importance of Low-Cost Spay-Neuter Surgeries	66
Concerns	67
Remedies: Perceived Role of Low-Cost Spay-Neuter Facilities	68
Additional Perceptions	70
Funding	72
Relationship Dynamics: Resistance to Change, Competition, and Mistrust	77
Mindset	80
Attitudes: Dogs versus Cats and the Dog Management Paradigm	85
Quality of Life Debate	87
Perceived Importance of Community Cat Caretaking	90
Desired Community Cat Management Programs and Collaborative Efforts	93
Chapter 5: Discussion and Interpretation of Results	99
Attitudes about Collaboration	99
Attitudes about Non-Lethal Management	100
Attitudes about Access to Low-Cost Spay-Neuter Surgeries	102
Potential Models of Best Practice	103
Desired Unowned Cat Management Initiatives and Collaborative Efforts	105
Perceived Impediments	105
Dog Warden Mandate	106
State Laws	107
Local Laws and Ordinances	107
Concern about Cats Living Outdoors	109
Funding	110
Relationship Dynamics	110
Chapter 6: Recommendations and Conclusion	
Recommendations	112
Encouragement and Facilitation of Collaborative Efforts	112
Additional Recommendations	114
Conclusion	115
References	118
Appendix A: Sample Preliminary Survey Questionnaire and Cited Data	124
Appendix B: Sample Study Interview Questions	127
Appendix C: Next Steps and Matching Needs and Resources Worksheet	131

Chapter One: Introduction

Brief History of Cats in the United States

Recent estimates indicate domestication of cats began to take place somewhere between 10,000 and 15,000 years ago, most likely in the Middle East (Bradshaw, 2013). It is believed that domestic cats first came to the New World as part of one of the voyages of Columbus (Alley Cat Allies, 2014a) or, at latest, with the first American colonists, serving as hunters of disease-carrying rodents (American Society for the Prevention of Cruelty to Animals [ASPCA], 2014a). Nevertheless, Serpell (2000) suggested that cats may have only begun to meet conventional standards for domestication in the past 150 years, although, conceding that “it is probably more accurate to view *Felis catus* as a species that has drifted unpredictably in and out of various states of domestication, semi-domestication and feralness according to the particular ecological and cultural conditions prevailing at different times and locations” (p. 181).

The Industrial Revolution spawned the rise of the middle class and the resultant increase in expendable income made popular the idea of keeping cats as pets (ASPCA, 2014a). Hence, dating back to the late nineteenth century, cats have increasingly been kept as household companions in United States. The American Veterinary Medical Association [AVMA] (2013) estimated that over 36 million American households owned cats in 2012.

Cats by the Numbers

Cats now rank as the most numerous companion animal in America (Gorman & Levy, 2004; Slater & Shain, 2005). The American Pet Products Association [APPA] (2015)--which publishes biannual pet ownership data and is a frequently cited source for such information--estimated that in 2014 there were 85.8 million owned cats in the U.S. The APPA estimate is significantly higher than the just over 74 million owned cats approximated by the AVMA (2013)

in its 2012 U.S. Pet Ownership & Demographics Sourcebook. The Humane Society of the United States [HSUS] (2012), in a white paper entitled, “The Outdoor Cat: Science and Policy from a Global Perspective,” reported an estimated range of 60 to 90 million owned cats in the U.S., based upon a review of “recent publications” (p. 20) that contained such estimates.

Although it appears determination of a reliably precise total number of owned cats living in the U.S. is an elusive goal, a generally accepted range of 60 and 90 million seems to exist. Variations in sampling methodology may account for at least some of the large disparity between the population estimates cited above; Patronek and Rowen (1995) cautioned that differences in sampling approaches, alone, can produce variances in owned-cat population estimates as high as 20%.

Estimates concerning the number of unowned cats in the United States are made with even less certainty (HSUS, 2012). Per Levy and Crawford (2004) and Hurley (2013), the number of unowned cats, nationally, likely approximates the number of owned cats. Similarly, Dauphine and Cooper (2009) postulated that a stray and feral cat population of 60 to 100 million exists in the U.S.; although Rowan (2013) estimated a much lower number of unowned cats—just over 32 million—based upon a projected distribution of cats/km² living in various U.S. ecologies.

Cat Classifications and Legal Status

Ownership status is one of the common means by which cats are classified, along with lifestyle and degree of socialization to humans (Levy & Crawford, 2004). Whereas owned cats may be confined indoors and/or allowed to roam outside, unowned cats—aside from possible incidental periods of time spent indoors—are exclusively free-roaming (Slater, 2002). These free-roaming, ownerless felines can be categorized into two basic subsets: stray cats and feral cats (Centonze & Levy, 2002; Levy & Crawford, 2004). Stray cats are lost or abandoned pets that, to

varying degrees, remain socialized to humans; whereas, feral cats are often untamed offspring of unsocialized parents or long-abandoned pets that have become unsocialized (HSUS, 2012; Levy & Crawford, 2004). The umbrella term “community cats” is now often used to describe the total population of unowned cats—feral and stray—living in a community (HSUS, 2014a). The categorical distinctions between the various types of cats described above are at best fluid and convoluted (Levy, Gale & Gale, 2003). This phenomenon was succinctly described by Levy and Crawford (2004):

Owned cats that wander or become lost may become stray cats. Stray cats that have lived in the wild for an extended time may become feral. Homeless cats may be adopted. Thus, individual cats may occupy different categories at various stages of their lives. (p. 1355)

As is the case in determining definitive categorizations for unowned cats, coherent sets of human attitudes about these animals seem to be just as difficult to clearly identify. According to a survey of Ohio residents conducted by Lord (2008), 55% of respondents indicated (by agreeing or strongly agreeing) that free-roaming cats were a “problem” (p. 1164) in Ohio, while only 29.5% responded that they considered them to be a problem in their own neighborhoods. Curiously, 48.9% of respondents indicated that there should be a law prohibiting cats from roaming freely, while a mere 33.1% agreed or strongly agreed with the statement, “cats should be strictly kept indoors as pets” (p. 1165).

Perhaps even more paradoxical is the relationship that exists between public attitudes and policy concerning unowned cats. Illuminative are the results of a question posed as part of a 2007 nationally representative telephone survey conducted by Harris Interactive, as cited by Chu and Anderson (2007), which indicated that 81% of respondents agreed that “leaving a stray cat outside to live out his life is more humane than having the cat caught and killed” (para. 4). In

spite of this overwhelming public sentiment, virtually 100% of all feral cats entering shelters continue to be euthanized (Hurley, 2013).

A similar degree of ambivalence toward outdoor cats is reflected in their treatment under the law. Many laws potentially applicable to cats are vague (Gorman & Levy, 2004). The statutes of most states, including Ohio (Ohio Revised Code [ORC], 2015a), categorize cats as companion, rather than wild, animals even when in a wild or feral state (Gorman & Levy, 2004). Ohio has no state laws specifically addressing feral cats (J. Dinon, HSUS Ohio director of outreach and engagement, personal communication, November 13, 2013) and the laws of only fourteen states mention feral cats (HSUS, 2014a). Similarly, most municipalities lack ordinances or regulations directly addressing free-roaming cats (Kortis, 2007).

Additionally, the federal government has elected to omit feral cats from its definition of “injurious, non-indigenous wildlife” (Gorman & Levy, 2004, p. 159), and, to date, has been unwilling to reverse its position, despite the vociferous urging of some conservation interests (as will be discussed in the next section). Moreover, Gorman and Levy (2004) conclude: “Since cats have been present in large quantities for an extended period of time they [generally] appear to have achieved the legal status of an indigenous species” (p. 162).

Cats and Wildlife: Differing Perspectives

In addition to being considered a nuisance by some due to noise generated because of fighting and mating behaviors, as well as odor caused by the spraying of “pheromone-scented urine” (D’Angelo & Farnsworth, 2010, p. 1), it is widely accepted that free-roaming cats are responsible for the deaths of a large number of wild birds and other small animals (Pacelle, 2013). However, the extent of cat predation and its resultant impact on the sustainability of wildlife populations is a source of great controversy. The existing literature on the subject is

summed up in the HSUS (2012) white paper: “It is hard to draw specific conclusions and find definitive trends involving the impact of cat predation on their prey populations from existing studies” (p. 47).

Jessup (2004) estimated that cats kill up to one billion birds, mammals, reptiles, amphibians, and fish in the United States annually, while Dauphine and Cooper (2009) claim that each year at least one billion bird deaths, alone, in the U.S. are attributable to cats. Based upon a meta-analysis of existing studies, Loss, Will and Marra (2013) controversially projected that “free-ranging domestic cats” (p. 1)—primarily of the unowned variety--account for 1.4 to 3.7 billion bird deaths and an additional 6.9 to 20.7 billion mammal fatalities yearly across the contiguous United States.

The accuracy of projections such as those cited above have been called into question by feral cat advocates, animal welfare organizations, such as the HSUS, and others who have investigated this topic. Alley Cat Allies (2014b), a national feral cat advocacy group, contends that such projections are generally overstated. The following statement attributed to the group’s president, Becky Robinson, as cited in an on line news story about the study, illustrates the acrimony often characteristic of this debate as she made an attempt to cast doubt on the credibility of the conclusions reached by Loss et al.:

This study is part of a continuing propaganda campaign to vilify cats. It seems as if the authors landed on a conclusion and then cherry-picked through studies to support it.

Some of the research they cite is more than a half-century old. (Mordini, 2013, para. 5)

Wayne Pacelle, president and CEO of the HSUS, made the following observation about the Loss et al. study:

Their work is a derivative of what others have done on the topic, and they have essentially rolled up what they could find in the literature and done their best to attach some numbers. We don't quarrel with the conclusion that the impact is big, but the numbers are informed guesswork. (Pacelle, 2013, para. 4)

Anthropogenic habitat destruction is an oft-cited cause of declining bird populations that, according to those expressing skepticism about cat-predation projections, vastly supersedes any impact attributable to domestic cats (Alley Cat Allies, 2011). Anderson and Vaniotis (2008), in an article appearing in the American Bar Association's *Animal Law Committee Newsletter*, argued that the very act of categorizing all forms of human-caused habitat destruction under one umbrella term diminishes the perceived magnitude of the problem:

Logging, crop farming, livestock grazing, mining, industrial and residential development, urban sprawl, road building, dam building, and pesticide use are just a few of the hundreds or even thousands of activities and damages that are captured by this phrase [habitat destruction]. Lumping these together as the number one cause of species loss allows issues which are inconsequential in comparison—such as cat predation—to be portrayed incorrectly as falling high on the list of threats. (para. 3)

Moreover, as noted in the HSUS (2012) white paper, Barratt (1997, 1998) suggested that “cat predation on prey populations remained equivocal” (p. 48). Similarly, Sims, Evans, Newson, Tratalos, and Gaston (2008) ascertained a “lack of marked negative correlations between cat and avian densities” (p. 387) in urban environments, noting that resolution of the intense debate surrounding cat populations on wildlife is “hindered by the lack of quite basic information” (p. 387).

Although some ecologists argue against viewing feral cats as a “non-indigenous,” “invasive,” or “exotic” (Gorman & Levy, 2004, p. 157) species because of their long association with humankind and because native species have become “acclimated to their presence” (p. 158), as alluded to earlier, a growing number of conservation interests—including the National Audubon Society (NAS)—counter this assertion (Wald, Jacobson, & Levy, 2013). Some researchers have even referred to feral and free-ranging cats in such terms as “exotic predators” (Dauphine & Cooper, 2009, p. 205) and “a global threat to terrestrial vertebrate conservation” (Peterson, Hartis, Rodriguez, Green, & Lepczyk, 2012, p. 1). It is not surprising that this vast divergence in perspectives has led to a contentious debate over the most appropriate form of management for unowned cat populations.

Risk of Zoonotic Disease

Another issue surrounding free-roaming cats is the risk of zoonotic disease transmission. The two maladies for which transmission is most commonly associated with cats are rabies and toxoplasmosis, though evidence suggests neither poses a ubiquitous threat.

According to Dyer et al. (2013) as reported in an article appearing in the *Journal of the American Veterinary Medical Association*, only 31 confirmed cases of human rabies occurred in the U.S. from 2003 to 2012; none of these with a cat as the known source. Additionally, according to the Ohio Department of Health, only 3 of 5,356 (0.06%) cats tested for rabies in Ohio between 2008 and 2013 returned a positive result (Ohio Department of Health, 2015).

Toxoplasmosis is most often contracted in the U.S. and other industrialized nations through the consumption of undercooked meat or unwashed fruits and vegetables, whereas, risk of exposure through contact with cat feces is small (Cornell Feline Health Center, 2014).

Moreover, there is no evidence that feral cat colony caretakers, despite regular interaction with outdoor cats, are at greater risk of contracting toxoplasmosis (Alley Cat Allies, 2014c).

Management of Unowned Cats

As indicated by Levy et al. (2003): “Considerable controversy surrounds methods for controlling free-roaming cats, particularly identification of the option that is most practical, effective, and humane” (p. 42). On its most fundamental level, unowned cat management comes down to a choice between utilizing lethal or non-lethal measures.

Historically, in the U.S. it has been routine practice to manage feral and stray cat populations through lethal means (Alley Cat Allies, 2014d; Hadidian & Weitzman, 2014; HSUS, 2012). The most commonly employed of these methods is trap and remove, whereby outdoor cats are trapped and euthanized (HSUS, 2012); other such methods which have been utilized include feeding bans (Kortis, 2007), shooting (HSUS, 2012)—two states, South Dakota and Minnesota, actually allow the hunting of feral cats (Kortis, 2007)—disease introduction, often via the Feline Panleukopenia Virus (FPLV), and the use of toxicants (HSUS, 2012). To date, disease introduction has been confined to island environments; similarly, the wide-spread use of poisons has been limited to mostly island eradication campaigns (HSUS, 2012).

For approximately the past quarter-century in the U.S., a non-lethal method of managing free-roaming cats--which had already been in use in Europe for a number of years—began to gain acceptance: Trap-Neuter-Return [TNR] (Alley Cat Allies, 2013b). Several variations of TNR exist (Centonze & Levy, 2002)---but typically the practice consists of free-roaming cats being humanely trapped, spayed or neutered, vaccinated (at least for rabies), eartipped (the universal symbol for an altered cat), and returned to locations where they were trapped (Alley Cat Allies, 2013a; Kortis, 2007).

Although TNR has been endorsed by veterinary organizations such as the American Animal Hospital Association (2014), the American Association of Feline Practitioners (2013), and the Association of Shelter Veterinarians (2010)—and animal protection groups such as the ASPCA (2014b) and the HSUS (2013)—the AVMA (2014) has officially adopted a neutral position on TNR. The ASPCA (2014b) and the HSUS (2013) have endorsed TNR as part of a multi-faceted approach to unowned cat management, which includes public education, keeping pet cats indoors, mediation of nuisance complaints, and the adoption of socialized community cats. The ASPCA (2014b) has also recommended the distribution of exclusionary devices and deterrents, while the HSUS (2013) has emphasized the importance of accessible spay/neuter services for all cats, as well as pet food pantries, behavior assistance, and other programs to help people keep cats in their homes.

Jessup (2004) noted that People for the Ethical Treatment of Animals [PETA] has opposed the practice of TNR on the grounds that free-roaming cats live abbreviated less-than-desirable lives. TNR advocates rebut this claim by asserting that the overwhelming majority of free-ranging cats are healthy. Levy, Isaza, and Scott (2014) found that less than 1% of cats trapped as part of a targeted TNR program in Florida had to be euthanized for health reasons. Scott, Levy and Crawford (2002), in a study of 5,323 free-roaming cats presented for sterilization, found that only 0.4% of the animals required euthanasia due to serious health conditions; while in a separate study, Scott, Levy, Gorman, and Newell (2002) observed that underweight feral cats recovered body mass within one year after neutering. Centonze and Levy (2002) reported that the vast majority (87%) of surveyed Florida feral cat colony caretakers believed that cats in their colonies experience an “excellent” or “good” (p. 1631) quality of life.

According to Wald et al. (2013), several long-term studies (minimum two years in length) have shown TNR to be successful at reducing free-roaming cat populations. Conversely, the same authors point out that a number of short-term studies (of one year or less) have indicated only nominal reductions, or in some instances gains, in cat numbers; additionally, they cite a report by Drennan (2012) of the NAS in which it is argued that cat predation on wildlife is unaffected by TNR. As previously mentioned, there is a move afoot by some conservation interests to promote expanded use of lethal methods of feral cat control (Hadidian & Weitzman, 2014; Wald et al., 2013).

Proponents of non-lethal management of unowned cats contend that stray and feral cat populations have continued to grow despite historically wide-spread use of trap and kill management methods (Ally Cat Allies, 2014b; Hurley, 2013). Hadidian and Weitzman (2014) argued: “No community in American history has killed its way out of the outdoor cat problem. That’s how we got to the point at which there are tens of millions of cats living outdoors” (para. 5); similar views were shared by the Pacelle (2014) and Kortis (2014).

In addition to the argued ineffectiveness of trap and remove strategies, ethical issues associated with the killing of large numbers of cats via lethal methods of management, must be considered (Cowan & Warburton, 2011). According to Wald et al. (2013) 83% of stakeholder survey respondents in Florida (TNR participants, NAS members, and the public living in four targeted counties) preferred non-lethal management of outdoor cats; while Hurley (2013) reported that 75% of Americans believe that only sick and dangerous animals should be euthanized in shelters—at present (as cited above), virtually 100% of feral cats entering shelters are killed. Levy and Crawford (2004) reported that death by euthanasia (of otherwise healthy animals) is the leading cause of all cat mortality.

Palmer (2003) argued that responsibility for unwanted behaviors associated with abandoned domesticated animals falls on humanity, rather than the animals themselves. Animals that have grown accustomed to human assistance are victims of circumstance in such situations and humans have a duty to care for them. Rowan (2013) observed: “Cats are closely associated with people—there are very few cats (comparatively) where there are no people” (slide 5). Burgess-Jackson (1998) contended that there has been “little discussion of human responsibility to companion animals” (p. 159) and that animals are widely regarded as hardly more than an “undifferentiated mass” (p. 159).

It appears that lethal methods of managing unowned cat populations fail to meet the criteria of “practical, effective, and humane” (p. 42) as laid out by Levy et al. (2003). First, lethal measures seem to be impractical because, even though millions of cats are put to death each year, the actual percentage of the outdoor cat population being euthanized is too small to make even a negligible impact on the problem. Hurley (2013) estimated that 8-20 times the number of cats currently being trapped and euthanized would need to be killed to reach a point where free-roaming cat populations would begin to experience long-term decline. Furthermore, public support for cat-killing programs is unsustainable (Centonze & Levy, 2002; Hadidian & Weitzman, 2014; Pacelle, 2014). Second, lethal approaches appear to be ineffective, as indicated by the continuing rise in the outdoor cat population in many communities despite employment of lethal tactics for over a century (Alley Cat Allies, 2013b; Hurley, 2013). Lastly, despite the assertions of some (e.g. PETA), most find it difficult to consider the routine killing of healthy cats to be a humane practice. As observed by Hurley (2013): “[C]ats are the only species for which it is routinely argued that a certain death today is preferable, for the cat’s own good, to a possible hazard in the future” (What About the Cats? section, para. 2).

Unlike lethal methods, non-lethal methods such as TNR seems to offer at least the potential for satisfying the requirements put forth by Levy et al. (2003). TNR programs are consistent with the aforementioned desire of the public for non-lethal management of free-roaming cats. Moreover, thousands of people already devote much time and money on a regular basis in order to care for outdoor cats (Alley Cat Allies, 2014e; Anderson, 2007), and nationally more than 1700 organizations (75 in Ohio) are dedicated to TNR (HSUS, 2014b). Studies have shown that sterilized feral cats experience “an extended period of good quality life” (Levy & Crawford, 2004, p. 1359) and that preemptive euthanasia of ownerless cats is unwarranted. Levy and Crawford (2004) have asserted that animal control agencies are increasingly utilizing TNR programs because they are more cost-effective, efficient, and scalable than lethal strategies.

In Ohio—the state that was the focus of this study—according to a statewide survey by Wittum and Lord (2004), only 35% of humane societies and one county animal control agency offered TNR programs for free-roaming cats. A preliminary survey of Ohio county animal control agencies (dog wardens), as well as private humane societies (including private animal shelters and rescue groups) conducted by this author in 2014 indicated only a marginal level of change over the past decade from the findings of Wittum and Lord. None of the responding Ohio dog wardens and 57% of humane societies indicated that they directly handled feral cats; however, 62% of county dog wardens responded that they referred calls about feral cats to other organizations. These findings, as well as those of Wittum and Lord, are indicative of the fact that Ohio law has no provision for cats—only county dog wardens are mandated by the state’s revised code (Logan County Dog Warden, n.d.). Moreover, this author’s preliminary survey revealed that 44% of all respondents indicated that they actively trapped free-roaming cats; while 38% of those answering partnered with local rescue groups or individuals (see Appendix A).

In an interview published by Ohio State University [OSU] (2008), Lord, author of a previously cited 2008 study of attitudes and perspectives about free-roaming cats in Ohio, observed:

Government has tended to not want to be involved in cats. And I don't know if they can avoid it anymore. It doesn't mean government representatives have to implement very strict animal control laws, but they might want to look at partnering with their sheltering community and veterinarians, and providing funding and/or services to try to help address this. (para. 9)

Lord further remarked: “[C]oordinated action of some kind—on the part of policymakers, shelter organizations and cat owners alike—is needed to try to control cat overpopulation” (OSU, 2008, para. 8).

Across the country, numerous documented cases of collaboration between government animal control agencies and private groups and individuals practicing non-lethal management of community cats exist. Boks (n.d.) cited examples of successful coordination of TNR programs between public and private entities in Alachua County, Florida; Maricopa County, Arizona; Orange County, Florida; and San Diego, California. Moreover, instances of TNR program collaboration in other U.S. communities have been highlighted in sheltering industry publications, such as *Animal Sheltering* (Peterson, 2013; Hettinger, 2013) and *Action Line* (Rivard, 2014). Examples of such collaboration have been documented in locations as diverse as San Jose, California; Indianapolis, Indiana; New Rochelle, New York; Colliersville, Tennessee; and North Pole, Alaska.

Collaborative efforts in the management of unowned cats between public and private entities in the state of Ohio were focal point of the study that follows.

This Study

The purpose of this exploratory study was to identify new and/or underutilized collaborative methods, and associated elemental factors, that have the potential to be used as—or to be incorporated into—templates of best practice for the non-lethal management of unowned cats in Ohio. The ultimate goal of this study was to uncover examples of collaboration between public and private entities that can be, in whole or in part, broadly emulated making it possible for more cohesive, comprehensive—yet flexible—strategies of non-lethal unowned cat management to be implemented more readily. The following research question guided this exploration:

What are the elements that help create models of best practice in public-private collaborative efforts to manage unowned cats by non-lethal methods in the state of Ohio?

Although it was expected that TNR would be the most commonly used non-lethal management method for unowned cats in Ohio, the term “non-lethal methods” was employed in the research question, rather than “TNR,” in order that all such qualifying practices revealed as a result of this study could be explored. Due to the convoluted and fluid nature of outdoor cat classification, as described above, the term “unowned,” rather than “feral” or “free-roaming” cats was chosen for the research question (although the remainder of this paper will employ the terms “unowned” and “community” cats interchangeably). This choice acknowledged the difficulty in accurately determining the status of particular cats without close observation and possible direct interaction—which often may not occur prior to the selection of management options. Nonetheless, an essential purpose of this study was to identify collaborative relationships that can be more broadly implemented to better manage unsocialized—feral—cats that are most often deemed unadoptable and routinely euthanized.

A qualitative approach to this research was taken because of the exploratory nature of the research question and because of the likelihood that multiple realities (Leedy, 2013) had been constructed by human stakeholders regarding the issue of unowned cat management. It was expected that perceptions of and attitudes about unowned cats in varying contexts would produce divergent ideas about appropriate management strategies. Of key importance was distinguishing existent patterns of successful collaborative efforts and common impediments to collaboration from within the collected data, as well as identifying anomalies and new ideas that showed promise for successful emulation. Additionally, the possible discovery of confounding variables (Neuman, 2011) not directly considered by the initial research question, such as insufficient access to low-cost spay-neuter surgeries, relationship dynamics among organizations, and the varying legal status of unowned cats in different municipalities around Ohio, necessitated the flexibility and adaptability that a qualitative approach allowed.

Also of utmost importance was the ability to discern the types of relationships that occur between stakeholders involved in collaborative practices, as well as the reasons behind such associations. Perceptions, attitudes and subjective meanings expressed by interviewed dog wardens and humane society/shelter managers, as well as a representative from a TNR-cat rescue group and a municipal government official were keenly analyzed and interpreted. A nonlinear research path (Neuman, 2011) was followed as information garnered from stakeholders during the course of data collection influenced the course of inquiry--with some elements being addressed, then, revisited.

As described by O'Leary (2004), this author's role as the researcher in this undertaking was to maintain neutrality throughout the research process, while ensuring, to the degree possible, that dependability, authenticity, transferability, and auditability were characteristic of

applicable methods and conclusions—every attempt was made for diligence, sincerity, and empathy to be consistently exhibited throughout the process to achieve these goals. This researcher attempted to suspend his judgments during the course of the study in order to gain a full range of perspectives relating to the research question.

Semi-structured interviews were used to collect data from participants—a purposive sample (Neuman, 2011) of dog wardens and humane society/shelter management was first selected, then, was augmented by snowball and convenience sampling to achieve data saturation (Seigle, 2002). Most interviewees had previously agreed, as part of the aforementioned preliminary survey conducted by this author, to answer follow-up questions. A semi-structured interview format was selected to allow for a clear list of issues to be addressed, while encouraging interviewees to develop ideas and elaborate on relevant points (Denscombe, 1998). As noted by Peterson et al. (2012), a purposive sample was “well-suited” (p. 2) for this type of inquiry because the subject matter is not a “highly salient issue with the general public” (p. 2).

Sixteen interviews were conducted by telephone beginning in November of 2014 and ending in January of 2015. Phone interviewing was utilized because interviewees were located over a large geographic area encompassing much of the state of Ohio. To improve the likelihood that details were not lost during the data collection process, all interviews were recorded with permission of the participants.

This author attempted to keep an open mind regarding the relevance of new issues and unexpected ideas introduced during the interview process, while remaining focused on addressing the research problem that inspired this inquiry. Interviews consisted of 20 to 30 mostly open-ended questions. As previously mentioned, most interviewees had already

completed a survey which inquired about their respective organization's feral cat policies and practices; consequently, interview questions delved into some additional detail about information already provided, but predominantly focused on previously undisclosed facts, beliefs, perspectives, perceptions, feelings, motives, relationships, and ideas.

Chapter 2: Literature Review

The objective of this study was to identify existing and potential elements of collaboration between Ohio public and private stakeholders specific to the non-lethal management of unowned cats. Because a search of the existing literature revealed no studies that matched this stated objective or that closely paralleled the research question, the following exhaustive review with selective citation considered research relevant to components of the research question, rather than its entirety. Empirical studies, including peer-reviewed journal articles and conference papers/presentations, as well as sheltering/animal welfare industry reference material were examined; each as it pertained to the following salient aspects of the research question:

1. stakeholders, collaboration, and community cat management strategies
2. types of collaborative relationships among unowned cat stakeholders
3. a recent case study and other documented examples of collaboration
4. collaboration and unowned cats in Ohio

Because of the exploratory nature of this investigation and the corresponding lack of similar studies in the existing literature, this review presents relevant evidence in an integrated format as it pertains to the four aspects of the research question stated above. The review closes with a brief summary and evaluation of the examined literature as it informs a sound rationale for this study.

Literature was searched via five electronic databases: EBSCO Host Integrated Search Tool, Science Direct, HumaneSpot.org, Humane Society University (HSU) Animal Studies Repository, and Google Scholar. Key word combinations entered included “feral” AND “cats,”

“free-roaming” AND “cats,” “community” AND “cats,” “unowned” AND “cats,” “Ohio” AND “cats,” “collaboration” AND “cats,” “Ohio” AND “collaboration,” and “Ohio” AND “feral” AND “cats.” Chosen studies were limited to those pertaining to unowned cat management in the continental United States (as opposed to other countries or island ecologies) or attitudes and perceptions about the same. Selected literature was also identified by reviewing the reference lists of previously selected articles and located as the result of personal communications, including the following examples: the senior scientist-wildlife for the HSUS provided an extensive reference list on the topic of outdoor cats, the provost of HSU furnished several articles and conference papers/presentations; the director of cat protection and policy at the HSUS and the program manager for PetSmart Charities each provided guidebooks and conference presentations.

Stakeholders, Collaboration, and Community Cat Management Strategies

Weiss (1983) (as cited in Wald & Jacobson, 2014) defined stakeholders as groups or individuals who are directly involved in determining, or have interest in, the outcome of a course of action. They heavily impact the success or failure of public policies and management programs (Ford-Thompson, Snell, Saunders, & White, 2012). It is widely recognized in the literature that a diverse group of stakeholders, including municipal animal care and control agencies, local non-profit humane societies, bureaus of local, state, and federal governments, national advocacy organizations, universities, special interest groups (HSUS, 2012), veterinary clinics, private property owners (Kortis, 2007), wildlife conservationists (Peterson et al., 2012; Wald & Jacobson, 2014; Wald et al., 2013) and non-shelter rescue groups (Weiss, Patronek, Slater, Garrison, & Medicus, 2013), among others, find themselves embroiled in a debate over the management of unowned cats (HSU, 2012).

Much disagreement exists between stakeholders as to the appropriate community cat management strategy (Loyd & Hernandez, 2012). In their survey of more than 1300 TNR program participants, NAS members, and members of the general public across four counties in Florida, Wald et al. (2013) found that polarization of attitudes, beliefs, and perceptions among stakeholders far exceeds that of the general public. Kortis (2007), in a guidebook on implementing a community TNR program, asserted that such ideological polarization among stakeholders has not benefited any party, while Wald et al. (2013) and Hadidian et al. (2012) concurred that polarization often acts as a significant hindrance to the discovery and implementation of management strategies that are most effective and humane.

Despite the existence of such a disparate group of entities with seemingly divergent agendas concerning community cat management (Slater & Shain, 2005; Weiss et al., 2013), it is widely proffered in the literature that a common goal is present among the numerous interested parties: reducing community cat populations (Hadidian et al., 2012; HSUS, 2014a; Kortis, 2007; Slater & Shain, 2005). Kortis (2007) argued that the interests and concerns of a variety of constituencies must be taken into account, while Wald et al. (2013) contended that areas of agreement between stakeholders should be the focus moving forward. Moreover, Wald et al. (2013) reiterated one of the core principles of negotiation as advanced by Fisher and Ury (1991) when they suggested that communication breakdowns among community cat stakeholders occur due to a focus on disagreements, rather than common interests. Hadidian et al. (2012) added that conflicts over unowned cats must be resolved through “cooperative engagement” (p. 95) based upon common objectives.

As identified by Wald and Jacobson (2014) and Wald et al. (2013), four basic community cat control options exist: TNR, trap and relocation to “no-kill” sanctuaries, trap and euthanize,

and no management. It is clear that a strategy of “no management” does nothing to resolve the myriad of issues surrounding community cats, nor does it achieve the objectives of any of the aforementioned stakeholders, perhaps explaining why no support for this option could be found in the literature. Kortis (2014), in a TNR guidebook published by PetSmart Charities, asserted that trap and relocation to “no-kill” sanctuaries is not a realistic option because sanctuaries with the capacity to accommodate millions of community cats simply do not exist. Levy and Hurley (2013) added that sanctuary space, when available, is quickly filled to capacity and that sanctuaries are the “most demanding, expensive, and time consuming way to care for cats” (p. 5). By process of elimination, then, TNR and trap and euthanize are left as the only remaining available options.

Hadidian et al. (2012) observed that, generally, neither TNR nor lethal measures of community cat control have been allotted sufficient resources to be effective at a population level. Notwithstanding this shared tendency toward a lack of wherewithal necessary to achieve broad success, Hadidian et al. (2012) contended that to be suitable from an animal welfare perspective, selected approaches to reducing unowned cat populations must minimize suffering and needless killing. Considering that the vast majority of community cats are in satisfactory health (Levy & Hurley, 2013; Levy et al., 2014; Scott et al., 2002), the humaneness of euthanizing healthy cats has been increasingly called into question (HSUS, 2014a; Kortis, 2014; Levy & Hurley, 2013).

Despite being the preferred method of community cat management for over a century (HSUS, 2012), trap and kill methods have failed to control unowned cat populations; hence, it is now widely acknowledged that lethal population control of community cats has proven ineffective (Centonze & Levy, 2002; HSUS, 2014a; Kortis, 2014; Levy & Hurley, 2013; Slater

& Shain, 2005). Due to the limitations that characterize other existing options, Slater and Shain (2005) argued that TNR is an increasingly viable strategy for reducing community cat populations—an outcome that achieves the goal held in common by all those with a stake in the management of unowned cats. Furthermore, surveys of public attitudes and perceptions by Lord (2008) in Ohio and Wald et al. (2013) in Florida revealed strong public preferences for non-lethal management of community cats—76.6% agreed or strongly agreed that TNR is a “good way to manage free-roaming cats” (p. 1165) in Ohio, while, as cited above, 83% of all respondents preferred non-lethal management in Florida, with a significant majority also favoring TNR as a management strategy. Moreover, 68.3% of respondents to a 2014 national survey commissioned by Best Friends Animal Society preferred TNR to trap and euthanize or no-management strategies (Wolf, 2015)

Types of Collaborative Relationships among Stakeholders

Collaborative efforts among stakeholders employing TNR vary widely in scope. Historically, TNR has been utilized most often to address specific individual or small groups of unowned cats (typically located on particular parcels of land, university campuses, etc.), rather than targeting broader populations (HSUS, 2012). Criticisms of TNR programs’ perceived limitations can be found in the literature, exemplified by Longcore, Rich, and Sullivan (2009) who characterized the practice as being haphazard and inadequate, and Jessup (2004) who argued that such programs are incapable of reducing unowned cat populations on a large scale. Doubt has been cast upon such criticisms because no independent data have been offered to support them and no credible alternatives to TNR presented. Additionally, perhaps any remaining concerns about the practicability and efficacy of large-scale TNR initiatives have begun to be quelled by the recent emergence of comprehensive, multi-dimensional, community-

wide models grounded in the principles of the basic practice. Implementation of such models—which feature targeting, Return to Field, or hybrid strategies—as reported by Levy et al. (2014), Levy and Hurley (2013), and Kortis (2014), is successfully expanding the breadth of benefits derived from the adoption of TNR programs. Such benefits are reported to include reduced intake of cats into municipal shelters and lower shelter euthanasia rates, as well as a reduction in unowned cat populations over time, which likely improves outdoor cat welfare, reduces predation of wildlife, and decreases the number of citizen complaints about nuisance behavior.

As was alluded to previously, TNR initiatives can range in size from a small number of concerned citizens targeting individual or small groups of cats located on their own properties to community-wide collaborative efforts involving public animal control agencies, private non-profit shelters, feline rescue groups, veterinarians, and numerous volunteer colony caretakers (Kortis, 2007, 2014). Community-wide TNR initiatives are complex and require the cooperation of multiple stakeholders to address the unique circumstances of a given community (Kortis, 2007; Slater & Shain, 2005). Per Slater and Shain (2005), it often takes time for trusting relationships to be built between various entities, but such “alliances can be extremely productive” (p. 49).

Invariably, community-wide TNR programs involve the participation of local governments, with county or municipal animal control agencies either playing active or supporting roles (Kortis, 2007, 2014). Animal care and control agencies are typically operated directly by local governments or, at times, via contract with non-profit organizations; however, it is not uncommon for cats to be excluded from the budgets and/or mandates of these agencies, which typically face ongoing funding challenges (HSUS, 2014a). Wald et al. (2013) noted that the public is generally less willing than stakeholders to support tax dollars being spent on

unowned cat population control initiatives—underscoring the need for adoption of innovative non-lethal approaches with broad stakeholder support; as well as development of programs in which community volunteers play a central role (HSUS, 2014a).

Gorman and Levy (2004) suggested that local governments should attempt to utilize methods designed to encourage public participation. The support of volunteer colony caretakers was recognized as a critical element to program success by Centonze and Levy (2002), who proffered that large-scale euthanasia initiatives likely fail because they do not account for the strong human-animal bond which motivates so many to oppose the killing of healthy animals.

Slater and Shain (2005) contended that because the management of community cats is interrelated with all other animal-related community efforts, collaboration among TNR practitioners, municipal animal control agencies and other animal-related stakeholders must be cultivated. To this end, hundreds of municipalities, including New York City, Chicago, Las Vegas, Salt Lake City, Baltimore, San Antonio, Dallas, Albuquerque, and Washington D.C., now endorse TNR (Kortis 2014). Furthermore, TNR program grant makers (e.g., PetSmart Charities, Maddie’s Fund, the ASPCA, and Best Friends Animal Society) look favorably upon the inclusion of public-private collaboration in program proposals when determining grant recipients (HSUS, 2014a).

It seems, based upon review of the literature, that the purveyors of TNR—perhaps practiced in conjunction with public education efforts and other community programs intended to reduce the number of unsterilized cats—are uniquely positioned to take advantage of the exceptional potential for collaboration that exists between public and private entities and the willingness of volunteers to assist in carrying out such programs, as well as favorable public

attitudes about non-lethal approaches to community cat management. New comprehensive community-wide initiatives that capitalize upon these conditions appear to be experiencing success. The next section provides an overview of several such programs as cited in the literature.

A Recent Case Study and Other Documented Examples of Community-Wide Collaboration

Type of collaboration: A case study examining a high-impact targeted TNR/adoption program in Alachua County, Florida (Levy et al., 2014). Critical elements: collaboration between a private TNR organization, a public animal control agency, and resident community cat caretakers on a targeted TNR initiative. The program was made possible by a grant from Maddie's Fund.

This two-year study, which took place in a discrete geographical area (zip code 32601) of urban Alachua County, sought to assess the effect of a systematic program--through which at least 50% of a community cat population is trapped, neutered, and returned or adopted--on shelter cat intake and euthanasia trends. Changes in rates of cat intake and euthanasia for the targeted zip code at a lone county animal shelter were compared to those of the non-targeted area (the rest of the county) for a seven-year period, including the five years prior to the commencement of the study.

Complaint calls to county animal control about free-roaming cats were referred to program staff for nuisance mitigation; additionally, residents were encouraged to agree to have community cats sterilized and returned, rather than impounded at the shelter. An educational campaign which included the mailing of postcards, distribution of fliers to local businesses and churches, and door-to-door canvassing was initiated in the target area to promote the

participation of residents. A well-established low-impact TNR program (Operation Catnip), which averaged approximately 2,100 cat sterilizations annually, had been in existence in Alachua County since 1998 and continued to function in the non-targeted area during the study period.

Fifty-four percent of the estimated 4,383 community cats in the targeted area were trapped and neutered over the study period. Fifty-two percent of these cats were returned to the outdoors (most to their locations of origin); less than 1% necessitated euthanasia for serious health conditions, and the rest were either adopted directly from the program or transferred to rescue groups for adoption. The authors of the study noted that adoption of well-socialized cats was an effective way to immediately reduce community cat populations.

Shelter intake of cats was reduced by 66% in the target area, as compared to 12% in the non-target area, over the two-year study period. The number of cats euthanized per 1,000 residents declined from a baseline of 8 to 0.4 in the target area, while the non-targeted area experienced a drop from a baseline of 10 to 7 cats/1000 residents. The authors of the study seem justified in their conclusion that the sharp declines in shelter intake and euthanasia rates of cats experienced over the two-year study period were produced by the superior high-impact targeted-TNR/adoption rate of 60 cats annually/1000 residents achieved in the target area. Operation Catnip's historical average rate of 8 cats /1000 residents failed to effectuate similar results.

Other documented examples of successful collaborative targeted TNR programs—all receiving grants from PetSmart Charities—include: Brownwood, Texas (2010-2013)—28% decrease in shelter cat intake and 37% decline in euthanasia; Tampa, Florida (2009-2013)—47% drop in shelter cat intake; Haywood County, North Carolina (2009-2013)—45% decline in shelter cat intake and 64% decrease in cat euthanasia; Louisville, Kentucky (2009-2013)—58%

decline in cat intake inside targeted area, as compared to a 39% reduction in non-target area, along with a marked decline in complaint calls concerning nuisance behaviors in the target zone (Kortis, 2014).

Type of collaboration: Return to Field initiative in Jacksonville, Florida—a.k.a.

Feral Freedom. Critical elements: partnership between a non-profit TNR group (First Coast No More Homeless Pets) and the municipal animal shelter (Jacksonville Animal Care and Protective Services) on a Return to Field program. Funding was provided by Best Friends Animal Society.

Instituted in 2008, Feral Freedom involved the transfer of all community cats admitted to the municipal animal shelter to private TNR organizations for sterilization and return to their territories of origin. The goal for this program was for no healthy community cats to be euthanized at the city shelter. Between 2008 and 2011, 15,274 cats were transferred from the municipal shelter under the Feral Freedom program (Levy, 2012). Shelter intake fell by 22% in 2010, alone, before slowing to drops of between 2 to 4% annually, while cat euthanasia declined by 92% from 2008 to 2013 (Kortis, 2014).

A targeted TNR component (in zip code 32210), underwritten through a grant by PetSmart Charities, was added to the Jacksonville Feral Freedom program in 2011. Despite a slowing in the reduction of overall shelter intake rates after 2010, as described above, intake rates in the targeted zip code dropped sharply (51%) within two years of inception of the targeting program—likely as a result of a decrease in the unowned cat population specific to that area (Kortis, 2014). Return to Field executed in combination with targeted TNR seemed to offer the best formula for decreasing shelter intake and euthanasia rates, while also reducing community cat populations.

Another documented example of a successful collaborative Return to Field initiative was in Albuquerque, New Mexico, which involved—over time—the partnering of a private humane society, a private TNR group, and the local animal control agency. The most recent phase, based upon the Feral Freedom model, received funding from Best Friends Animal Society and PetSmart Charities. Albuquerque’s program combined Return to Field with both colony-level and community-level targeted TNR. From 2010 to 2013, overall euthanasia rates fell 85%, while overall intake rates fell by 28%, and intake within targeted zip codes decreased by as much as 62% (Kortis, 2014).

Community Cats, Collaboration and TNR in Ohio

With over 11,500,000 residents, Ohio is the seventh largest state by population in the United States (U.S. Census, 2014). Four of the largest 67 cities (Columbus, Cleveland, Cincinnati, and Toledo) in the country are located in the state (U.S. Census, n.d.). Ohio is made up of 88 diverse counties, ranging in size from 13,435 residents (Vinton) to 1,280,122 people (Cuyahoga); in fact, despite the state’s large total population, 60 of Ohio’s 88 counties have fewer than 100,000 residents (us-places.com, 2012).

According to Lord (2008) 26.2% of all Ohio residents surveyed reported that they had fed feral cats during the previous 12 months—a much higher percentage than what has been found in other states (Levy, 2012)—yet only 11.2% were aware whether or not TNR programs were offered in their communities. Lord (2008) observed that there is likely limited access to TNR in numerous areas of Ohio. Additionally, she identified stakeholder collaboration as necessary for prevention of the continued growth of unowned cat populations.

This author's search of the literature produced one documented example of public-private collaboration in Ohio. A joint effort between the Cleveland Division of Animal Control Services (public) and the Cleveland Animal Protective League (private), with the primary goal of improving live release rates (LRR) for cats and dogs, was created as part of the ASPCA's Partnership program (Weiss et al., 2013). Community partners in the ASPCA program collected, shared, and analyzed common types of data, and agreed to enact processes to "increase LRR, decrease intake, and improve community engagement" (Weiss et al., 2013, p. 223).

Weiss et al. (2013) reported that, unlike other joint efforts included in this study, Cleveland's public-private partnership was more successful at improving LRR for dogs (+31%) than cats (+5%). The authors of the study postulated that the small degree of improvement in feline LRR experienced in Cleveland—the study's six-community average was +111% over a five-year period—may be explained by the omission of cats from animal control budgets in Ohio, causing responsibility for care and control of all relinquished, abandoned, and other ownerless cats to fall exclusively upon non-profit organizations. Weiss et al. (2013) pointed out that in the five other communities participating in the study (Austin, Texas; Buncombe County, North Carolina; Charleston County, South Carolina; Spokane, Washington; and Tampa-Hillsborough County, Florida) public resources were available to help fund such projects. Lord (2008) reported that there is likely public support for policymakers to establish low-cost spay-neuter and TNR programs for cats in Ohio.

Summary and Evaluation of Relevant Literature

The preceding review has examined evidence appearing in the literature pertaining to four salient components of the research question. Existing research indicates that a disparate

group of stakeholders with seemingly divergent agendas share a common goal of fewer unowned cats. It is widely asserted that collaboration among stakeholders is necessary for this outcome to be achieved. TNR (perhaps in combination with public education campaigns, and community efforts to improve owned cat sterilization rates and reduce abandonment) and trap and euthanize appear to be the only plausible options currently available to reduce community cat populations. Since trap and euthanize has a long, failed history of controlling unowned cat populations, and because non-lethal management is strongly favored by the public, is more humane than killing healthy cats, and is now being implemented on community-wide bases, TNR has likely emerged as the best choice of available strategies moving forward. As found in the existing literature, community-wide TNR programs are reducing community cat populations, lowering intake of unowned cats at shelters (where the vast majority are euthanized), and decreasing shelter euthanasia rates—all positive outcomes resulting from public-private stakeholder collaboration.

Ohio is comprised of densely as well as sparsely populated communities; the state features multiple large urban areas, widespread suburban environments, and expansive rural landscapes. Lord (2008) noted differences in attitudes relating to free-roaming cats among urban, suburban, and rural Ohio residents. No study that identified elements of existing and potential collaboration across the divergent regions of Ohio, or any state within the continental U.S., was found in this author's search of the existing literature. Though geographically and demographically diverse, the entirety of Ohio (or any state) shares laws and mandates as they pertain to community cats. The aim of this study was to identify how in various parts of Ohio public and private entities work together to manage unowned cats by non-lethal means (most likely built around TNR). A non-lethal method that seems to hold future promise—either as a TNR alternative or perhaps as a supplement to conventional TNR programs—is the development

of a safe and effective oral contraceptive for cats. In fact, Levy (2011) contended that, although not yet perfected for common use, “[l]ong-lasting single dose contraceptives suitable for administration in the field by trained technicians would be a powerful tool for the control of overabundant species such as community cats” (p. 69). Robertson (2008) asserted that “non-surgical contraception is a realistic goal” (p. 366); however, until such a vehicle is readily available for field use, it appears from this review of the literature that a TNR-based approach remains the most viable option.

In addition to the identification of successful partnerships and practices—along with corresponding elements that make such efforts possible—another objective of this study was to discover impediments and/or deficiencies that may inhibit the implementation of successful collaborative community cat programs. Slater and Shain (2005) called for additional research to identify problems being faced by communities and generation of improved stakeholder intervention strategies—this study was consistent with that purpose. The data generated from this investigation has the potential for multiple implications; as such information will likely be salient to various community cat stakeholders and policymakers in Ohio as they develop relevant strategies moving forward. Limited transferability of study results to other states may be possible as the diverse characteristics of Ohio make it a bellwether in other genres.

Chapter 3: Methods

As has been previously mentioned, due to the exploratory nature of this study, a qualitative methodology was utilized. Such an approach was selected because it provided a means of effectively identifying and interpreting examples of collaboration—and related elements—between public and private stakeholders in the management of unowned cats. A grounded theory design was employed so that patterns of practice and pertinent relationships among stakeholders could be best uncovered (Leedy, 2013). Moreover, grounded theory facilitated the discovery of processes involving stakeholder actions and interactions (Leedy, 2013) as well as changes that resulted from dynamic internal and external conditions (Strauss & Corbin, 1994).

A primarily purposive sample--augmented via snowball and convenience sampling--of Ohio humane society/shelter directors and managers, county dog wardens and representatives of a single TNR-cat rescue group and a municipal government participated in semi-structured interviews. Twelve stakeholders interviewed for this study agreed to participate when completing the aforementioned preliminary survey conducted by this author in 2014. Survey respondents who agreed to be interviewed worked as county dog wardens and in management at private humane societies/shelters or rescue groups in various localities across Ohio. Snowball sampling (Neuman, 2011) was employed in the selection of one additional participant from a humane society/shelter, while convenience sampling (Neuman, 2011) was used to identify two additional interviewees representing humane societies/shelters and one municipal government official before data saturation was achieved. Interviews took place over an approximately eight-week period. HSU protocol concerning informed consent was closely followed.

An iterative, interactive process of data collection and analysis referred to as constant comparative method was employed to ensure that an adequate multiplicity of stakeholder perspectives was examined and resultant conceptual density achieved (Strauss and Corbin 1994). This researcher assimilated perspectives and interpretations of community cat stakeholders participating in the study—garnered through the interview process—into the conceptualizations formulated as the study progressed (Strauss & Corbin, 1994). A sample study questionnaire, made up of foundational questions asked of interviewed stakeholders, is included in Appendix B.

As interviews were completed and transcribed, hard copies of notes and transcripts were sorted and organized using manila folders and, for security purposes, stored in a locked filing cabinet. All electronic notes and recorded interviews have been saved on the researcher's personal computer or other electronic devices and are password protected. Codes were used in place of interviewee names in order to protect the confidentiality of responses. Even though no direct harms were anticipated to impact those participating in this research, protection from potential detrimental consequences—such as negative public perceptions, loss of proprietary information, or deterioration of government, inter-organizational, or donor relationships—was of paramount concern. While descriptions of real world collaborative efforts and impediments to the same were provided in the reporting of data, care was taken to ensure that interviewee privacy and confidentiality were maintained.

Collected data was reviewed and sorted using an iterative three-pass system consisting of open coding, axial coding, and selective coding. This multiple-stage analysis allowed for data, first, to be condensed into preliminary analytic categories and subcategories (or codes), so that commonalities could be discerned (Leedy, 2013). Subsequently, these initial codes were organized by concepts which thematically clustered together, so that conditions, contexts, and

consequences could be determined (Leedy, 2013). A third pass through the data involved, as described by Neuman (2011), “scanning all data and previous codes, looking selectively for cases that illustrate themes, and making comparisons after most or all data collection has been completed” (pp. 513-514). In this third step—selective coding—a narrative describing “what happens” (Leedy, 2013, p. 147) was developed through the combining of categories and interrelationships.

Consistent with constant comparative method, steps in this process were repeated and categories modified as additional data were collected (Leedy, 2013). Employment of such a system allowed for identification and interpretation of patterns as well as anomalies within the collected data relevant to Ohio unowned cat management policies, practices, and perceptions. As proffered by Strauss and Corbin (1994), predictability of theory generated through this methodology was possible inasmuch as specific conditions related to revealed consequences are approximated elsewhere—this conclusion is of particular relevance to the primary objective of this study: identification of transferable models/elements of public-private collaborative best practice within a defined geographic and/or political region operating under at least some shared mandates and statutes, such as (but not limited to) the state of Ohio. Ultimately, interpretation of meaning took place prior to conclusions being reached and recommendations being offered as part of the research write-up. As was stated above, theories generated by this study have the potential for myriad implications, as supported by Strauss and Corbin (1994) who asserted that knowledge produced through the use of grounded theory methodology can manifest itself in enhanced understanding as well as direct action.

Chapter 4: Results

Description of Participants

A total of 16 participants--four county dog wardens, one operator of a non-profit TNR-cat rescue group, one municipal government official, and ten private humane society/shelter directors or managers—participated in this study. All but four of the participants were selected through purposive sampling and had agreed to be interviewed as part of the aforementioned preliminary survey; a combination of snowball and convenient sampling accounted for the remaining number of interviewees. All participants gave their consent to be interviewed.

Four of the humane societies/shelters involved in the study provided, in one form or another, in-house spay-neuter surgeries for unowned cats. It was anticipated that such services would be offered at another participant's facility within the next 12 months. The other five humane societies/shelters did not have the necessary facilities and/or licensure to offer in-house spay-neuter services for non-sheltered animals. The 16 study participants represented entities located in 12 Ohio counties; no more than two interviewees were located in any one county.

As indicated previously, participant privacy and confidentiality was of paramount concern; therefore, direct references to specific interviewees have been made utilizing the codes listed below (Table 2). Study participants were assured confidentiality, in part, to encourage uninhibited disclosure of perspectives and attitudes regarding the present state of unowned cat management in Ohio as well as current and prospective collaborative efforts.

Interviewee number	Organization type * In-house spay-neuter for unowned cats	Identification code
1	County dog warden	DW-1
2	TNR-cat rescue group	TRG
3	Humane society/shelter	HS-1
4	Humane society/shelter*	HS-2
5	Humane society/shelter	HS-3
6	County dog warden	DW-2
7	Humane society/shelter*	HS-4
8	Humane society/shelter*	HS-5
9	Humane society/shelter*	HS-6
10	County dog warden	DW-3
11	Humane society/shelter	HS-7
12	Humane society/shelter	HS-8
13	Humane society/shelter	HS-9
14	County dog warden	DW-4
15	Municipal government official	MGO
16	Humane society/shelter	HS-10

Stakeholder Consensus: Unowned Cat Management is a Problem in Ohio

Broad agreement existed among study participants in the perception that unowned cat management is an issue. When asked if the management of community cats is a problem locally, stakeholder responses ranged from deeming it as a county-wide concern--one interviewee referred to the scope of the free-roaming cat situation as an “epidemic” (HS-8), while another exclaimed, “They’re everywhere, just everywhere” (TRG)--to believing that challenges pertaining to unowned cats are mainly present in specific neighborhoods or communities. Multiple participants noted that mobile home parks and apartment/condominium complexes are locations of particular concern, while areas behind restaurants were mentioned multiple times as well. Perhaps the statement that most succinctly represented uncovered sentiments among a majority of study participants was expressed by HS-5, who remarked, “Free-roaming cats are *the* problem—the complete and total problem. Pet [indoor] cats are not the issue. The issue is trying to wake people up to that fact that they are responsible. ‘It’s not my cat,’ is always the first answer. ‘It’s not my cat.’ Cats are nobody’s baby.”

State of Collaborative Efforts to Manage Ohio’s Unowned Cats

A widespread willingness to collaborate on the part of stakeholders in all categories was found. In spite of this general openness to working together, study participants reported an array of impediments which inhibit full realization of potential joint efforts. Obstacles including local laws and ordinances, organizational mission/mandate constraints, competition between organizations, political considerations, and lack of time, space, and/or monetary resources were cited—each of these impediments to collaboration, among others, will be presented in more detail in later sections.

Frequently, instances of collaboration identified by stakeholders occurred on isolated bases, rather than as part of broader initiatives. The variability in establishment of cited collaborative relationships is likely attributable to differing conditions and attitudes within and across Ohio counties. In spite of this variation, three general types of collaborative alliances were discovered: public-private collaboration between state-mandated county dog wardens and private humane societies/shelters and/or TNR-cat rescue groups, public-private collaboration between non-dog warden government entities and private humane societies/shelters and/or TNR-cat rescue groups, and collaboration amongst various private humane societies and/or TNR-cat rescue groups.

Collaboration between County Dog Wardens and Private Organizations

As the lone state-mandated animal control agency, county dog wardens are the only such entity which maintains a consistent presence across Ohio. All four interviewed dog wardens cited their agency mandate, as defined by section 955 of the ORC (2015b), as the central reason for not directly handling cats (including unowned cats). Perceptions, as well as accounts, of dog wardens' openness to and participation in collaborative efforts to manage unowned cats varied greatly.

DW-4 claimed, on some days, to get as many calls about cats as dogs. It was attested that cat inquiries are routinely referred by the agency to the local humane society; additionally, an agency van has been loaned on occasion to the local humane society for the transport of cats. DW-3 complained that the local humane society has always been full whenever attempts have been made to direct calls there about cats. It was flatly stated by DW-2 that due to state mandate, beyond giving out the names and numbers of local humane societies, dog wardens are unable to support private organizations in the management of cats—although it was indicated that

employees of this particular county agency have done what they can on a personal basis to assist felines, including seeing to it that a small number of stray cats on premises were found homes.

DW-1 maintained that calls about community cats have been referred to private wildlife trappers because no alternative local resources were available—at one time the agency had lent traps to residents for the purpose of catching free-roaming cats, but “in the past few years we’ve kind of pushed away from doing anything outside of what, you know, our job description entails.”

TRG reported recent initiation of a relationship with a new county dog warden, who has offered to give donated cat food to the non-profit group because the government agency does not handle cats. The new warden has also agreed to refer calls about community cats to the TRG. It was asserted that the former dog warden was unwilling to cultivate such a relationship.

Multiple interviewees representing humane societies/shelters (HS-4, HS-5, HS-6, and HS-10) stated that calls about cats have been regularly sent to them by county dog wardens—HS-6 remarked that a “great collaborative relationship” exists with the dog warden’s office. Two study participants (HS-3 and HS-8) reported taking in only injured or ill community cats referred from the dog wardens in their respective counties. HS-3 noted that, atypically, the local county dog warden’s office does directly handle unowned cats, but expressed uncertainty when asked if unsocialized cats were routinely euthanized by the agency. Two interviewees (HS-1 and HS-2) reported no direct relationships with county dog wardens—both were unsure if the county agencies referred calls about cats to their organizations. HS-7 lamented the fact that no collaboration exists with the county dog warden because of a deteriorating relationship due to philosophical differences which have manifested over the past four or five years, while HS-9 indicated that there was no opportunity for such collaboration because the dog warden was already working with another organization.

Collaboration between other Government Entities and Private Organizations

Collaboration with government agencies other than dog wardens was less commonly reported. Several study participants representing humane societies/shelters noted working with non-dog warden government agencies in managing unowned cats; however, beyond two notable exceptions (described below), these relationships appeared to be invoked on case-by-case bases, rather than as part of official programs.

Three study participants (TRG, HS-7, and HS-10) attested to handling unowned cats for local health departments, while two (HS-2 and HS-7) noted working, when asked, with local law enforcement in dealing with unowned cats.

Anomalous were two reported public-private collaborations; one involving the organization of HS-6 and a local municipality—private-municipal collaboration #1 (PMC-1)-- and the other between the humane society of HS-10 and the city represented by the MGO—private-municipal collaboration #2 (PMC-2). Each of these cited collaborations, though different, involved large-scale sterilization of community cats (ranging from hundreds to thousands of cats per year); additionally, both entailed, although by different means, a municipal funding component.

PMC-1 was an active TNR program whereby HS-6's organization was responsible for performing spay-neuter surgeries, or the "N" portion of the T-N-R process. The collaborating municipality subsidized nearly 70% of the cost of feline sterilization procedures, leaving a small balance to be paid as a co-payment by city residents who chose to utilize the service. Per HS-6, no city ordinance specifically prohibited the practice of TNR, but certain rules on the books—a health code which prohibited the leaving out of food attractive to nuisance animals, as well as

some littering laws--may have been open to broad enough interpretation as to, paradoxically, make TNR illegal. Due to these restrictions, HS-6's organizational role was limited to the performance of spay-neuter surgeries. Residents and rescue groups were responsible for cats that were picked up after surgery. A concurrent TNR program allowed residents living in the remainder of the county, outside of the collaborating city, to take advantage of the same low out-of-pocket cost for spay-neuter surgeries--although private grants, rather than municipal dollars were utilized to fund this program.

PCM-2 was an active officially-sanctioned municipal TNR program conducted as a collaborative project between the city represented by the MGO and the organization of HS-10. The city managed complaints made by residents about community cats--according to the MGO, about 70% of all complaint calls coming into the city were about animals with approximately half of those pertaining to outdoor cats. The city referred complaint information to HS-10's shelter, which dispatched paid staff to trap the cats (this was found to be more efficient by HS-10 than using volunteers). HS-10 collaborated with area low-cost spay-neuter clinics to perform sterilization surgeries, after which the cats were returned back to where they were caught. HS-10's organization billed the city for services performed. Funds for the program were obtained through a \$50,000 grant made to the city by PetSmart Charities.

Collaboration among Private Humane Societies/Shelters and/or TNR-Cat Rescues

Although not the stated focus of this study, the most frequently revealed type of collaboration occurred among private animal welfare groups. All study participants representing these entities expressed a general willingness to work with other such organizations; all but one--at least to the extent of referring calls about community cats--indicated that they already do so. The following responses were representative:

- TRG: “It’s all about networking and trying to work together.”
- HS-5: “We will work with anybody that wants to work with us.”
- HS-6: “There is no formal collaboration between [our organization] and local rescues, but we loosely network and they use the TNR program’s spay-neuter clinic.”
- HS-10: “We look for collaboration everywhere—between rescues, between spay-neuter clinics, between veterinarians, the more we work together the more we can accomplish.”
- HS-9: “Unfortunately, no [collaboration takes place] because it’s not legal in our city to do [TNR].”

Clearly, the most common collaborative relationship cited by study participants occurred between humane societies/shelters that perform in-house spay-neuter surgeries and those (including shelters, rescues and TNR groups) that do not. In fact, spay-neuter surgeries for unowned cats appeared to be at the crux of all reported collaborative efforts. Other factors motivating cited collaborations—trapping of cats, transportation of cats, post-TNR activities—were all predicated upon access to spay-neuter services. The importance of the role played by spay-neuter facilities in the management of Ohio’s unowned cats, as perceived by interviewed stakeholders, will be further discussed in a later section.

Identified Themes and Elements:

State Laws and Mandates as they pertain to Cats

It is undeniable that the current state of unowned cat management in Ohio is at least, in part, a product of the state’s laws and mandates. Stakeholder perceptions of these rules and their impact on community cats are, not surprisingly, varied. Disagreement existed even among dog wardens about the role that these state-mandated county agencies legally can or should play in the management of unowned cats.

The following synopses are indicative of communicated dog warden attitudes concerning state laws and mandates:

- DW-1 maintained that current state laws are insufficient and asserted that although personally undecided about the prospect of dealing with cats: "...I think there needs to be something and I mean our officers are, you know, we would be equipped to be able to deal with it if we could....I think it would help."
- DW-2 offered no specifics on changing the ORC in regards to cats, but contended that state laws are "behind the times," emphasizing that the necessary resources, training, facilities, and jurisdiction are not present for dog wardens to handle cats. Moreover, the practicability of cat licensing was questioned: "...I can't imagine, you know, how you'd go about doing that, but there needs to be something in place."
- DW-3 asserted that Ohio laws concerning cats need to change, adding that it is "the right thing to do." The county official asserted a willingness to add cats to the purview of dog wardens if allowed and funding were provided, and also maintained that animal control is needed at more than just the city level. Additionally, mandated licensing of cats was suggested.
- DW-4 expressed no views on dog wardens handling cats, but advocated for initiation of a state fee to be charged per owned cat to fund humane societies and TNR programs.

The interviewed leadership of humane societies/shelters and the lone TNR-cat rescue group agreed that cats lack much consideration under current Ohio law, but perceptions were close to evenly split as to whether this apparent omission works to the benefit or detriment of unowned cats. The following are encapsulations of sentiments expressed by private animal welfare group participants both for and against changing current state laws:

Arguments in favor of changes to current Ohio laws/mandates:

- HS-5: Ohio needs to replace the “stupid and archaic” dog warden system with an animal control system like employed in most other states.
- HS-3: More clarification is needed pertaining to cats. More uniform policies and procedures would be less confusing for people resulting in “less passing of the buck” between organizations.
- HS-8: Basic laws for cats are needed. “Laws that would allow cities and counties to come together for cats.” For example, proof of spay-neuter for cat owners should be required.
- HS-7 & HS-8: Support the licensing of cats and making it illegal for cat owners to allow their pets to roam.
- HS-1 & HS-5: Would like to see mandatory spay-neuter of cats (and dogs), adopted from shelters--to eliminate potential reproduction if the animals are allowed to roam outdoors or later abandoned. “It would be kind of like my life’s dream” (HS-5).

Arguments in opposition to changes to current Ohio laws/mandates:

- HS-6: “When I first got into this work, I thought that [the lack of state laws specifically addressing cats] was awful and a real slight on the value of cats. Now, quite frankly, I think it’s the best thing for cats. Cats don’t do well in shelters. Data shows us that cats’ owners do not find them here. They don’t get reclaimed. The euthanasia rate in so many shelters is so sky high....I think that [hold] times for cats are going to have some really dramatic unintended consequences if they’re implemented in a state like Ohio that doesn’t have that right now.”
- HS-6: Favors some form of licensing, “but not making it a law per se...as long as it doesn’t come with penalties.” No need for another excuse to euthanize cats. Licensing

should simply be another resource [means of identification aiding in recovery of lost cats] for cat owners, who are in need of more resources.

- HS-2: “As far as I know...feral cats are still regarded under the companion animal piece, you know, so people can’t just shoot feral cats...so I think that’s pretty great they’re not considered nuisance animals or pests—they’re still protected under the companion animals piece, so I think we’re pretty lucky with that.”
- HS-9: “Not too sure that changing the Ohio code is the answer. [Community cat] colony caretakers could not afford to pay for licenses for cats.”
- TRG: State laws and mandates do not necessarily need to be changed. “It doesn’t seem like that really plays a part in what counties are doing as far as TNR anyway.”
- HS-10: There is no need to work to change the current laws. “Laws have a tendency to catch up to public opinion. Discuss ideas, change the environment and other things will follow suit.” Change perception through action and the laws will eventually catch up as less resistance to change exists.

Local Laws and Ordinances

Stakeholders reported variability in the existence, as well as types, of laws in place at the local level. Half of study participants indicated that at least one community within their respective counties had enacted ordinances pertaining to cats or that could be applicable to cat management. Prohibitions against animals at large (sometimes referred to as leash laws), abandonment ordinances that could potentially be applied to the releasing of cats trapped and sterilized as part of TNR activities, and feeding bans were the types of local ordinances mentioned most often, although as previously cited, health department codes that potentially could be applied to the feeding of cats were also reported. Multiple participants were uncertain

about the details of local ordinances and how they might specifically be applied to community cats. Communicated stakeholder perceptions about the effectiveness of local ordinances were mostly negative, albeit not exclusively. Local laws were considered to be significant impediments by multiple interviewees representing private animal welfare groups. The following sampling of participant commentary was reflective of the whole:

- HS-2: “There are no leash laws or licensing for cats, which frustrates some people. They want us to take [unowned cats] away.”
- HS-7: “[U]nder the laws here, cats are allowed to free roam.”
- HS-2: “It’s fortunate that we don’t have any city ordinances [in the county] about feral cats. It’s just silly, feeding bans obviously don’t work.”
- HS-4: “Feeding bans...that’s the ordinance that I have come across mostly....When someone does stop feeding the cats the ban actually has the opposite effect. Because the cats don’t leave--they’re hungry, they haven’t eaten, and they’re not getting food on some nice lady’s back porch. That’s when they start getting into trash cans more, that’s when they start crossing streets and interacting with people more.”
- HS-6: “What ordinances don’t support locally is the releasing of the cats and then feeding them and taking care of them, so we’re looking to see some of those ordinances changed because we know that feeding bans and things like that are completely ineffective.”
- HS-9: “We can’t do anything right now because of the ordinance. We need to amend the city’s at-large animal law to allow TNR. Surrounding cities [with similar laws] must do the same—cats don’t stop at the border.”
- HS-5: “[Local municipality] has done a great job over there [with enforcing an at-large animal ordinance by trapping and euthanizing community cats]. It was really hard in the

beginning. The first two years people would call every week telling me how horrible it was collecting up all these cats and putting them to sleep. I said, 'If you don't want them to do it, get them rounded up yourself and take care of them.' [Local municipality] doesn't have much of a cat problem now because they rounded them up. You're not allowed to have cats outside. It has to be collared or identified--you follow the rules and that's what you do."

Several study participants offered additional observations and opinions about the enforcement and effectiveness of the types of local ordinances described above; in some instances, personal or unofficial positions and strategies pertaining to these laws were divulged. To further ensure subject confidentiality, due to the potentially sensitive nature of these comments (listed below), the source of each statement is not disclosed.

- "As long as there is nobody complaining, [releasing of cats by rescues] is not a problem under the law."
- "[Animal control] will look the other way, especially when the animal has a crooked ear because obviously that's already been TNRed and the cat isn't going to hurt anybody."
- "The city could not enforce a feeding ban—they don't have the manpower."
- "Police don't have time with all they've got going on in [municipality] to worry about people feeding cats unless somebody's really calling and complaining about it."
- "I've never seen anyone get fined or go to jail or anything like that [for feeding outdoor cats], but a lot of notices on doors."
- "...[P]eople doing TNR in [municipality] can actually be charged with abandoning an animal if caught re-releasing them after surgery. If that actually gets enforced, I could not say, but it could happen."

- “A lot of people are doing [TNR] already. [Our organization] pushes it in the community. It’s only a matter of time before the city moves and gives a provision allowing TNR.”
- “...[F]rom a personal point of view, not from an organizational point of view, [I] would like to see, you know, the places that have the restrictions [prohibiting TNR] kind of rethinking that....We don’t have a stance as an organization, but the majority of us that work here are huge supporters of it.”
- “That’s the beauty of having all of these different entities working well together...there are ways around just about anything and some of the ways are creative.”
- “My philosophy is I’m doing TNR whether it’s legal or not and I think that’s the only way to get it done in a lot of cases.”

Just as intermittent as the reported presence of local ordinances pertaining to cats was the observed existence of municipal animal control agencies. All study participants addressing the subject were of the view that most cities do not have their own animal control departments or even animal control budgets for cats. Moreover, when such agencies were known to exist, trap and euthanize was thought to be the method most often employed in attempts to control unowned cat numbers. The following statements were representative:

- MGO: “The city’s animal control department was eliminated years ago.”
- HS-6: “The state doesn’t require cities to have animal control budgets for cats. It is apples to oranges across counties and across suburbs within the county. Cities with animal control budgets for cats normally euthanize them.”
- HS-9: “The city animal control officer euthanizes feral cats in response to complaints...they don’t make it to the shelter.”

Perceptions about Available Methods of Unowned Cat Management

Study participants overwhelmingly favored non-lethal methods of community cat management. Nine out of ten interviewees representing humane societies/shelters and the single interviewee from a TNR-cat rescue group were convinced that non-lethal methods are more effective and humane; the lone municipal government official was in concurrence with this view. Three of four interviewed dog wardens expressed favorable attitudes toward non-lethal management and supported utilization of TNR. The two study participants (one humane society/shelter stakeholder and one dog warden) who failed to endorse non-lethal methods were skeptical about the effectiveness of practices such as TNR and concerned with the quality of life faced by cats living outdoors; however, both acknowledged that a strategy employing TNR was superior to doing nothing. The following statements were indicative of participant perspectives:

- HS-6: “When I talk to people about TNR, to me, it is the perfect example of, ‘What’s the definition of insanity?’ So for decades, for more than decades, we’ve been trapping and killing cats and yet we have more cats than ever before.... As a matter of fact, it would take a while to convince me that lethal management is at all effective.”
- HS-9: “I personally don’t think that euthanizing any of them is going to solve the problem—you have to start nipping it in the bud....[Trap and euthanize] doesn’t solve the original problem and that’s just a waste of your time.”
- HS-2: “...I don’t think that an excuse to euthanize a feral cat is because someone doesn’t want it in their yard, you know what I mean. There are many ways to deter cats from your yard....I don’t think, ‘Oh, I don’t want it in my yard’ is a good reason to be euthanizing feral cats.”

- HS-1: “Absolutely, yeah [believes non-lethal management can be effective]...with feral cats typically if you get the colony spayed and neutered, those cats generally keep other feral cats away.”
- DW-3: “...I mean [TNR] definitely would help. Again, it’s not really our business area, so I don’t know the ins and outs of it, but obviously anytime you spay and neuter any animal you’re helping with population control.”
- HS-5: “As I said, I am not a believer in TNR, but it is better than doing nothing that’s for sure—at least the cat won’t reproduce.”

Study participants were asked specifically about the three strategies of non-lethal unowned cat management outlined in the literature review section of this paper: TNR, targeted TNR, and Return to Field. All study participants were familiar with the practice of TNR—a significant number of stakeholders reported currently operating or participating in TNR programs, while others were merely aware of it being performed at some point. Likely due to the fact that TNR is the most commonly employed method of non-lethal community cat management, sentiments about the practice closely paralleled those concerning the broader topic. Most interviewees seemed to consider the terms interchangeable.

About half of all stakeholders were familiar with the concept of targeted TNR. All opinions expressed by interviewees about this strategy of unowned cat management—some based upon prior knowledge and others upon a brief description of the concept provided by the interviewer to those unfamiliar with it--were favorable. For example, upon learning about the proactive nature of targeted TNR (as an alternative to simply responding to individual complaints) HS-5—the lone participant representing a humane society/shelter skeptical about the effectiveness of TNR—seemed to strike a more enthusiastic tone:

“Oh, really? Well, like I [previously] said, I would just love to have the cat trapping squad out there every day on the road. I mean, oh my God, I just get so many [free-roaming cats]; they are everywhere. Here in [municipality] you can drive into the city in different areas and as you drive you’ll be in this area with a lot of abandoned houses and stuff. And these cats are just sitting in the windows and on the roofs of the houses and it’s crazy. I think to myself, if you could just get out there....”

Only four (all representing humane societies/shelters) of the 16 total stakeholders taking part in the study reported familiarity with the concept of Return to Field. Two of these participants (HS-2 and HS-6) strongly endorsed the practice, while the other two were conflicted about the notion of releasing socialized cats back outdoors—one of these participants (HS-4) ultimately endorsed Return to Field anyway because “it is the best option for dealing with large numbers of [unowned] cats;” the other (HS-10) claimed to have just attended a conference on it, concluding only that, “I still struggle with this one. That’s about what I’d say at this point, I still struggle with this one.”

During the course of interviewing, an abundance of stakeholder attitudes and perceptions regarding TNR, targeted TNR, and Return to Field were revealed. Interviewee perspectives generally fell into four categories: general attitudes, perceived effectiveness, level of participation, and impediments to successful implementation.

TNR:

General Attitudes. Widespread agreement existed among study participants, with the previously noted exceptions of one humane society/shelter representative and one dog warden, that TNR is the best available method of community cat management. It was also believed by a large majority that TNR has made gains in public awareness and acceptance.

- HS-3: “Personally, I think TNR is the way to go, 100%.”
- HS-9: “I support TNR 100%. Nothing else has worked so far.”
- HS-4: “I think that we are a tipping point right now as we speak...where feral cats have entered the public consciousness...where people are very familiar now with TNR and with feral cats. It’s not a strange concept. It was a hard sell ten years ago and now it’s like, ‘Oh yes, TNR works.’”
- TRG: “I think that TNR is a lot more in the mainstream. It’s in the news more, especially with Alley Cat Allies and the HSUS doing things to promote it and a lot more people becoming aware of it. While they may have been aware of community cats before that were out there, they didn’t know what to do about them.”
- HS-7: “Our biggest thing, and we try to tell people, is they complain about stray cats, but they are putting food out. So, we’re like you’re just adding to the problem if you’re feeding them and not fixing them.”
- HS-8: “TNR is a great program....It used to be this particular shelter, people would just trap feral cats and they would come here to be put down. Our way of thinking now is that I would rather have that cat live two years even if it got hit by a car in two years--to be free--than to just come to a shelter to die.”
- MGO: “We looked to TNR because we were concerned about the inhumane methods being used to control feral cats.”
- DW-2: “I mean, I think that if there’s nothing else available, I think [TNR] is certainly a better option...because [cats] are just so prolific.”

Effectiveness. As was the case concerning general stakeholder attitudes about TNR, great similarity in expressed perceptions about its effectiveness existed. Again, all but two stakeholders expressed generally favorable perceptions about TNR efficacy.

- HS-7: “All the research that we’ve done says that it is very effective in managing the numbers in a specific location. Because if you just remove all the cats from that area, it just kind of creates a vacuum and they will keep coming back.”
- HS-9: “If a group of local communities would begin doing TNR the unowned cat population would go down and we would get politicians on board in a heartbeat.”
- HS-3: “I definitely think we can feel the effects of the really numerous organizations getting together to push the [TNR] spay-neuter message. But again, you know, will our numbers show it? Not necessarily, because...again, you know we took in [hundreds of] animals from one house in August, so we’ll always stay busy no matter what.”
- HS-6: “So, we have actually seen our cat intake go down dramatically here. Now what we can’t do, however, is say that we know for sure that it’s just TNR because I don’t know of an animal welfare agency out here that isn’t throwing everything at the wall all at once to try to do everything we can to reduce our intake, reduce our euthanasia, and increase live release rates...but what we know is we’re sterilizing [thousands] of cats a year and we have seen a decrease in our cat, and particularly our stray cat, intake and our stray kitten intake.”
- HS-4: “The [local county] animal control chief has said on record that he knows TNR works, but due to the set-up in the county they can’t do it.”
- DW-1: “In one particular area where I saw a ton [of cats], I think [TNR] has worked out OK....Normally you would see, you know, the adults and kittens and everything running

all over the place and then coming up to fast food restaurants and stuff ...I don't see that as much since they did that."

- DW-3: "I mean it definitely would help. How do we do trap-neuter-release? How do we start controlling the population of this? It's just so far out of whack right now."
- DW-4: "At one time the county had some money and they were doing a trap-spay/neuter-release program and that woman was keeping pretty busy with that program, but I don't think the funding is there for that program yet...I think that [TNR] is a viable solution to the feral cat population."
- HS-5: "Well, I think [TNR as an effective method of management] would be pretty difficult."

The adoption, rather than returning to the outdoors, of sociable cats was cited as an important supplemental component of TNR. Interviewees representing a majority of humane societies/shelters and the TNR-cat rescue group reported making a concerted effort to follow this practice. Additionally, a number of participants indicated, when possible, they have attempted to socialize feral kittens. The MGO expressed surprise at the number of socialized cats and kittens able to be put up for adoption as a result of the trapping and sterilization associated with PMC-2. It was speculated that the large number of stray cats encountered as a result of PMC-2 may have been the product of abandonment caused by the poor economy of recent years. HS-10 confirmed that approximately half the cats trapped as part of the public-private collaborative project were stray rather than feral cats.

- TRG: "[A] lot of times we get some friendly [community cats] or we have a situation like I was working on with an elderly man...he's 86 and he called and said. 'I have a lot of

[outdoor] cats.’ There were well over 25. We’re taking some of the kittens up to [local shelter] on Thursday and they’ll put them up for adoption.”

- HS-10: “So in the instance where we found that [trapped cats as part of PMC-2] were free-roaming social cats, especially at the time when we had space, we would take those and put them up for adoption.”
- HS-5: “[Whether we attempt to socialize feral kittens] depends on the time of year. If it’s early in the year or, like, [December] when we’re beating the bushes for Christmas kittens, yeah, if they’re little we try to socialize. If we can do that we’ll always try to do that if we can. Now in the height of the kitten season, we won’t mess with that. We have so many nice ones that we are trying to save.”

Levels of Participation. Four (HS-2, HS-4, HS-6, and HS-10) of the ten participants from private humane societies/shelters reported that their organizations currently operate or play central roles in TNR programs of some type: three perform spay-neuter surgeries for community cats brought in by volunteers, residents, and/or rescues (including as part of PMC-1, as described above), and one handles the entire TNR process in response to complaint calls referred by a local municipality, including the trapping and releasing of cats (PMC-2). As noted above, surgeries performed as part of PMC-2 are done at collaborating third-party low-cost spay-neuter clinics, rather than in-house.

As previously mentioned, a fifth humane society representative (HS-7) revealed organizational plans to begin offering in-house spay-neuter surgeries to county residents and rescues--including surgeries for TNR--within twelve months of being interviewed. It was noted that until the new operation became functional, cats brought in for TNR would continue to be transported to a collaborating spay-neuter clinic in a neighboring county. Another interviewee

from a humane society (HS-1) reported holding monthly spay-neuter events for the public—accommodating both pet and stray cats--despite having no building from which to operate a shelter or clinic. This program is made possible through collaborations with two low-cost clinics, one local and the other a traveling mobile unit brought in from several counties away.

Moreover, it was indicated by another participant representing a humane society with a large in-house clinic (HS-5) that those bringing in community cats are offered a choice between spay-neuter surgery and humane euthanasia services. The remaining three participants representing humane societies (HS-3, HS-8, and HS-9) cited lack of resources, facilities, licensure and/or legal and political impediments as reasons for not currently participating in TNR programs. The majority of interviewees representing private animal welfare groups indicated that they rent or loan traps to the public for TNR; most also indicated a willingness to provide TNR instruction to those interested in trapping cats on their own.

The mission of the lone subject TNR-cat rescue group was to conduct TNR. As such, TRG reported regular collaboration with an in-house spay-neuter clinic at a local shelter in order to take advantage of low-cost surgeries. As described above, participant dog wardens most often cited state laws and mandates as reasons for not directly participating in TNR programs, although three of the four indicated that they have regularly attempted to refer calls about community cats to private humane societies or rescue groups. The sole interviewed municipal government official reported initiating the city's official TNR program (PMC-2) with HS-10's organization. The following statements were illustrative of these findings:

- HS-4: “[Our program] is still kind of grassroots. Not real organized or anything...there’s no official city or town TNR programs.”

- HS-10: “So the [municipality] manages the calls and complaints from individuals within the community. We, then, actually do the trapping, spay-neutering and returning. Then, we simply send a bill to the city, who received a grant from PetSmart Charities—then they reimburse us for that.”
- HS-1: “A lot of people sign up [for the monthly spay-neuter events] stray cats or cats that have been dropped off at their house or that have just shown up. I would bet close to half the cats that we sign up...just showed up at someone’s house and these people are trying to do the right thing and get them spayed and neutered before they breed out of control.”
- TRG: “I have noticed quite a few people that are willing to try it on their own. Once they do it and they see it kind of empowers them a little bit. They can see that, ‘Well hey, this wasn’t so difficult and this is really cool that now these cats are fixed and I can provide them a shelter and take care of them.’ I think that really gives them a sense of accomplishment.”
- HS-5: “As far as I know, we are the only agency around that even lends [traps] out and we’re one of the few agencies that actually has the capacity to fix these animals, too.”

Impediments. Interviewed stakeholders reported a number of obstacles that may be encountered by organizations considering TNR programs: local laws and ordinances, organizational mission/mandate constraints, dearth of collaborative partners, competition between groups, political considerations, lack of public awareness/cooperation, and inadequate time, space or monetary resources. The following observations were reflective of these perceived barriers:

- HS-4: “There’s an ordinance against animals at large and they apply that to cats. I’m saying don’t change the ordinance...just give us a provision in the ordinance that would allow for TNR--that would allow for the R part of the T-N-R.”
- HS-4: “I’m kind of out there [visibly doing TNR], my goal is to make it as accessible as possible to people, but a lot of feral cat trappers are, ‘Don’t mention my name,’ or ‘Don’t let people know I’m doing this.’ You know, they’re kind of in the shadows a little bit. I’d like to bring it above board. Make it legitimate--get support...”
- DW-2: “...[W]e don’t handle cats. We don’t have jurisdiction over cats, there aren’t any laws pertaining to cats, and you know, that’s out of our scope. We’re not humane agents, which a lot of people don’t realize. We are dog wardens...we are a government agency and we are actually in place to protect the public from stray dogs.”
- HS-7: “We refer people to [a spay-neuter clinic in another county], but other than that there’s not a lot [of other organizations] that are really local to us. I actually can’t think of any that focus solely on cats in our county. I feel bad for the cats because I feel they get shortchanged a lot because there isn’t anything that focuses solely on them. But I would love to see people more willing to do TNR or manage feral colonies.”
- HS-10: “I think the mad scramble for, you know, the table scraps of donations has led people to stop working together, to become more competitive because they’re competing for dollars rather than an end game. So, the more we work towards an end game the better off we are. I feel like that’s traditionally become the trend for non-profits...they are so competitive for dollars that they’re not seeing the end. They’re not mission driven anymore. They are not results driven. They don’t have an idea in mind where they want to go.”

- DW-4: "...[T]hese people all have the goodness of the animals at their heart, but when it comes right down to it politics is involved....How do you get people to go back to square one and say first thing here is the animals? I think if they focus on that then you could get groups to work together. I think it could really change things, but everybody has their own agendas and is not willing to give a little or take a little and then you're going to have this."
- TRG: "I get so many phone calls and emails, 'Did you know about cats behind this restaurant or cats behind this apartment building?' You name it, they are there. And everyone seems to think that there's some magic land that I must have that I can take every feral cat to and they are going to live happily ever after."
- HS-8: "...[W]e would love to have our own TNR program here at our shelter...working with other veterinarians maybe for discounted services to create a program here is one of our goals. Our problem here is resources and space."
- HS-3: "It's sad, but I think it happens with rescue, you get caught up in the day-to-day and the faces that are in front of you that need your immediate rescuing every single day. And when you're rescuing thousands of animals every single year...just basically at the end of the day [not] having the extra energy to do something else after you've spent however many hours. You know we'd all love to see more happen with [TNR], but with most of us here, we're not out pursuing it or kind of chasing it because we're exhausted because we just rescued 100 cats in three days. Does that make sense?"

Targeted TNR:

General Attitudes. Despite the fact that only two interviewed stakeholders (HS-2 and HS-10) revealed having had even limited experience utilizing this form of TNR, virtually all opinions

expressed by participants about this strategy were favorable. Stakeholders seemed to favor the proactive, macro-approach to unowned cat management offered by targeted strategies.

- HS-6: “Targeting is going to serve the bigger picture, where there are fewer animals on the street and a lower numbers entering shelters, depending on how it is done.”
- HS-4: “We need to graduate from grassroots by figuring out and concentrating on the areas which generate the most complaints....[T]he county and the state, they don’t care about what’s best for cats, they’re dealing with complaints....”
- DW-3: “It’s a good strategy for addressing an area with a really bad issue because there is not enough money to go after them all.”
- DW-4: “It makes sense to me to do TNR and put them back in that area. There is a food source for them, but you are not going to continue to grow the population if you get them taken care of.”
- TRG: “I’ve not done a specific targeted area...but the people that I’ve done large numbers for always say, ‘This is great. Everything has settled down. The cats are content. There’s [sic] no babies. They aren’t roaming. They aren’t causing trouble. And, the numbers are slowly declining.’”

Effectiveness. Participants commenting on the effectiveness of targeted TNR perceived the practice to be more efficient than traditional “grassroots” TNR. Several lauded its potential to reduce cat complaints. It was also noted that targeting may be most effective if implemented as part of a comprehensive spay-neuter strategy encompassing owned as well as unowned cats. The comments that follow were demonstrative:

- HS-6: “Well I think, logically speaking, [TNR] is highly effective knowing the behavior of cats. I think what has happened over the years is that we have perhaps all deployed it

in a way that has not been as effective as it could be because we tried to make all-comers happy. We haven't targeted our efforts in certain communities and I think our program has been guilty of that."

- HS-2: "That's something we really want to do in the future. ...Because I do think targeted TNR is definitely a lot more efficient, you know, just by everything that has been researched in regards to TNR."
- HS-4: "...[F]iguring out the neighborhoods or zip codes, or whatever, that [municipalities] are getting these complaints from—the highest concentrations—those are the zip codes we need to concentrate on and really go in and make a concerted effort to spay and neuter as many cats as possible. And, I think that over time we'll see those complaints diminish and that's when they'll see that it works."
- HS-10: "We did a little bit of targeting just kind of on our own to try it....If you are going to do targeted areas, in my mind, you kind of have to do an all-in approach. So, you can't just do feral cats...you have to do feral, [stray], and owned cats....We also did a free spay-neuter day for the community itself....These were cats at high risk of being abandoned and if left unneutered, the population would start growing all over again....You have to do everything all at once....So unless you're doing this all-encompassing approach, I think you're not really getting ahead. You're just dealing with the problem as it exists now, not what it will be in the future."
- HS-3: "I think it's great because, obviously, a lot of these targeted places are places that we also get a lot of significantly injured [cats] from, like sick kittens, and hit-by-cars. So obviously the reality is, because a lot of these are low-income areas, our humane officers are in those areas dealing with owned animals as well. So, I think it's fantastic and I

know [another local organization] does apply for grants for certain zip codes a lot. And not just for TNR, actually, just targeted spay-neuters--like free spay-neuters if you live in a certain zip code; fantastic.”

Levels of Participation. While no interviewees reported that their organizations were actively participating in targeted TNR programs, several indicated that targeting is a strategy of unowned cat management that they desire to utilize.

- HS-4: “I really think that [targeting] is the next step. You know, I think doing grassroots-going in to handle [as a trapper] large at-risk colonies of cats myself—personally, I think that’s great. But, I think the next step is to do targeted trapping. I think we have to partner with the city or the county or whatever the municipality is to really look at their animal control procedures and where the complaints are coming from.”
- HS-6: “...[F]or as much as I believe in TNR and I do think the program we have put in place here has had a positive impact, I don’t think it’s had as strong an impact as it could have if we were going about it in more of a focused, targeted, strategic way and I think that’s the next frontier for TNR. Maybe rather than focusing on all the low hanging fruit, many of us need to come up with that support that we need to go after the next tier of cats, neighborhoods, and people.”
- HS-10: “I would, yeah [like to do more targeting]. I think that, you know, it’s funny because this is actually a growing trend. Trends seem to change so quickly as we learn more and as we learn a greater amount.”
- HS-2: “You know we got a really big grant from Neighborhood Cats last year and we tried to identify a zip code, but that doesn’t seem, for us, to be a great judge of where there are feral colonies, I guess. So, we are looking into different ways to identify that.

There is a little township/village that they know there's an issue there and I've had residents call me. There's actually someone...who's doing some advocacy in that area to see if she can get the township to step up and hire trappers or get volunteer trappers to do that because I told her we're more than happy to do the surgeries...."

Impediments. Commenting study participants cited local laws and ordinances most frequently as impediments to conducting or participating in targeted TNR programs; funding issues and lack of available staffing were also mentioned as significant hindrances.

- HS-6: "So the first thing that needs to happen [for targeted TNR to begin] is that it needs to be something that we can't get in trouble legally for doing. And, then, the next thing is going to be we're going to need more financial support...."
- HS-4: "I mean we've been working on it for several years as an organization...we've been trying to work with [county animal control] to, like I say, get a provision in the ordinance and put a team together....So I don't know what the trigger event will be. Like I say, we've been trying to break that door down for many years and the [county animal control] says, 'Oh yeah, we definitely want to do that. Let's talk about it. Let's set up a meeting next month.' And then the meeting never happens."
- DW-4: "...I think [targeting] is an effective program, if you can get the funding for it."
- HS-1: "I just want to make it known that if we had more...regular, consistent help we would likely be doing more out in the community where we would be searching, I guess you'd call that more proactive. Or, like you were just saying, the targeted TNR, we would do more of that if we had the manpower."

Return to Field:

General Attitudes. More than half of study participants offering opinions about Return to Field—four of whom attested to being already familiar with the concept and several others responding to a brief explanation provided by the interviewer—supported the idea. Most supporters admitted to the need to overcome initial trepidation before being convinced, while those with persistent skepticism harbored more formidable reservations.

- HS-6: “I am behind [Return to Field]. It’s very controversial in animal welfare right now. I think there are people who feel very strongly one way or the other, there is a part of it that makes me feel a little worried because we all want to know what exactly is going to happen. It’s like with every adoption we do, we want to make sure that we have a perfect home, [but] we’re not going to always know that up front.”
- HS-4: “Yeah, at first I thought, ‘that’s a terrible idea, Return to Field.’ And you know, from a standpoint of an individual grassroots person who’s trapping the cats in his backyard, Return to Field might sound awful, but when you start to do large numbers you realize you have limited resources....you realize that Return to Field is really a pretty good option.”
- HS-2: “Yeah, I’m a huge fan of that. The animal control officers bring them in and they just spay and neuter them. If they’re healthy cats, even if there’s not a caretaker, if you get an adult cat that is in good shape and, you know, obviously not missing a meal, why wouldn’t you put him back to where he’s established and obviously thriving? For me, I think it’s a no brainer.”
- HS-10: “It’s one of those things where I struggle if we are doing the humane thing in this instance. You take a friendly indoor cat and you just put it back out where it was without

necessarily ensuring it has food sources or that it has recurring water, all the things that it needs for basic survival if it was an indoor cat.”

- HS-5: “[N]ot all cats can make it outside. I mean some can, but not all. And, like I said, that’s the part that always worries me about this is that people think, ‘Oh, I’ll just fix the cat and let it go.’ They have the idea that cats are independent survivors, that they are self-sufficient. Some are, some truly are, but a lot are not, especially if they are not raised in that environment and have no idea of hunting skills or anything like that....I think probably 65% to 70% of cats can survive that way, not always as well as others.”

Effectiveness. Likely due to the general lack of familiarity with Return to Field found among interviewed stakeholders, as well as the newness of its mainstream utilization, virtually no perceptions about the strategy’s effectiveness were uncovered. HS-6 made the following case for Return to Field in light of the fact that only about 2% of cats are reclaimed by their owners at shelters (Levy & Hurley, 2013):

- “[W]e look at some of the data that is out there that tells you the lack of likelihood that an owner is going to find a cat through visiting or calling a shelter and that such a higher number of cats find their way home on their own and the vast majority of these animals being turned in as strays really do belong to somebody. If we’re bringing in fat, sassy, healthy cats, but they can’t be adopted out because they’re not social enough, I would rather put them back out where they were than end their lives.”

Levels of Participation. No participants reported that their organizations have conducted Return to Field programs.

Impediments. Participants cited several hindrances to the potential establishment of Return to Filed programs, including local ordinances, inability to provide spay-neuter surgeries, funding, and resistance to change.

- HS-6: “So, you know, in our minds, we’re looking at doing some Return to Field. Again, we need ordinance changes before we can start to do that....”
- HS-3: “Yeah, we would love to do something like [Return to Filed]. Technically, since we don’t have the vet license, since it wouldn’t be our animal...we can’t provide [medical care], and also again, since the majority of animals come from [municipality with an at-large animal ordinance] there is the legality part of it....I think it’s great if you can provide it. I think it’s fantastic.”
- HS-8: “...[F]or us it would be a cost issue. If we were to take on that role to spay-neuter those cats, then, we would have to come up with those funds.”
- TRG: “[T]hat’s something we’ll never see here, at least while the current [humane society] director is in place.”

Importance of Low-Cost Spay-Neuter Surgeries

All study participants representing humane societies/shelters and the TNR-cat rescue group indicated that access to low-cost spay-neuter surgeries—whether via relationships with outside facilities or use of an in-house clinic—was central to efforts to manage unowned cats. Another recurring sentiment expressed by private animal welfare group participants was that delicate relationships often exist with private veterinarians. Private vets were viewed by many interviewed stakeholders of all types as inclined to overcharge for unowned cat spay-neuter surgeries, or generally unwilling or unable to provide services for community cats. Access to low-cost spay-neuter surgeries was seen as a problem in many communities by multiple

participants. The following interviewee statements reflect concerns expressed about the affordability of spay-neuter surgeries provided by private-practice veterinarians and the perceived role of low-cost spay-neuter facilities in remedying such issues, as well as some additional perceptions about the issue of low-cost spay-neuter surgery accessibility:

Concerns:

- HS-5: “I said, ‘Tell me what I can do to help you get your [seven] cats fixed? I will make you a hell of a deal.’ ...[A woman who asked if the shelter was accepting kittens] said, ‘Well, I’m saving my money and as I get my money saved, I get them fixed.’ ...I said, ‘Saving your money, what do you mean?’ And she said, ‘Well, my vet charges \$180 to fix a cat.’ And I said, ‘Really? That’s ridiculous. I’ll fix all seven of your cats for \$180.’ ...But this is what these vets charge. \$180, I mean for God’s sake.”
- TRG: “...[A]s a matter of fact, a lady [interested in using TNR to manage cats on her property] who I just did [trapping] for—oh my gosh, I think about 15 [cats] for her a couple of weeks ago...she said, ‘Oh my.’ Her [private vet] bill was like [expensive]. I ended up talking to [a low-cost clinic] and we got them to do it for \$15 apiece. And her bill for all those cats--some had been treated for fleas and upper respiratory, there were a number of them that had severe upper respiratory—was less than what it cost to do one cat at her vet that she had trapped on her own and done. That’s why so many people feel like it’s hopeless. Because two litters of cats and you’re up to 10 to 15 cats and they’re like, ‘I couldn’t afford to fix one and now I have 10 or 12, how am I ever going to afford to fix them?’”
- HS-9: “I got a list of local vets that surround our shelter just in case for, you know, if in the future we can get [TNR] done. We’ve got a place we can go right then and start

talking to people about it. But, I'm hearing that a lot of vets won't deal with feral cats...[due to] the low cost because they're not making the money they would with somebody's pet."

- HS-5: "So [two nearby county dog pounds] both mandatorily spay-neuter and they don't just use us, they use other vets, too. But, they mandatorily spay-neuter before the animals are released, so we have a really good relationship with them....Now that other humane society...the one that I told you doesn't fix them and has vets on the board—we can't get anywhere with them. I've offered them, you know, I said, 'You can just bring a whole van load down every week and we'll fix them for you. I'll give you such a good deal you won't believe it,' but they won't do it. They just have the idea that the vets need to get the money."

Remedies: Perceived role of low-cost spay-neuter facilities:

- HS-6: "In a perfect world, there's a specialized, dedicated, affordable low-cost spay-neuter facility that can bring spay-neuter [services] period, full-stop....[I]t's what happened with our animal welfare clinic. It's the 'if you build it, they will come,' and we had people champing at the bit just waiting for somebody to offer TNR surgery at an affordable cost...."
- HS-4: "[We] basically do surgeries at cost just to provide that service to the community. We try not to replace regular veterinary care. We just want to offer an alternative to the high cost of [private] spay-neuter surgeries."
- HS-2: "[I]t's \$20 per cat and we include a rabies vaccine and FVRCP vaccine and we don't provide any other services, even for payment...our main mission is spay-neuter....We do mandatory ear tipping....We feel strongly that...it helps deter people

from bringing in their pet cats, which is something we still, you know, obviously we don't want to upset the vets in the area--and we really don't."

- DW-4: "I've heard of low-cost spay-neuter clinics coming around in a trailer. If you can get [the cats] together and get enough for them to do that, you could have them come into your area and they just come in and run it through like a production line. And, we get calls for low-cost spays or neuters, and once again, going back to the [neighboring county] humane society, they have on-site vets there and they offer low-cost spay-neuter....[S]o we have referred people there and that's probably a 50-minute drive...but when you look at what it's costing for spay-neutering locally through your vet, that's a good deal to be able to save \$150 or better to go get your animal done."

HS-4, a manager at a shelter which also operates a high-volume, low-cost spay-neuter clinic, suggested that such clinics should act as the locus around which programs such as TNR are executed:

"...I think that they have to have a hub, or like a main resource, and it makes sense that [it's] a spay-neuter clinic, a high-volume clinic. It's too much to ask of a private practice veterinarian....They are set up to make money and they've got to keep the doors open. At [our clinic] we're losing money on everything and we know that going into it. But, a spay-neuter clinic...has to be the hub or the main resource for not only the surgeries, but also for information and where to get your traps. We do a monthly seminar at the shelter. I teach people how to do TNR, get them out there doing it the right way--keeping it as low stress for the cats as possible and getting everybody familiarized with the process."

Moreover, multiple participants representing humane societies/shelters which operate in-house spay-neuter clinics pointed out benefits derived from their facilities' ability to track community cat related data, including the discovery of unowned cat management program limitations.

- HS-4: "...[W]e have all the data and once the cats come in we plug that into our system so we know the number of cats that are coming in from [each] zip code and we have all the logistics. It just makes sense, not only to do the surgeries, but to keep track of all the data, too. So, it's good for funding. It's good for applying for grants and stuff like that, but it's also good for going to city leaders and saying, 'Look, this is what's going on.'"
- HS-6: "We know from where we've done some [geographic information system] mapping, we know where our cats come in from. We know where our TNR cats come in from. Unfortunately, those areas are all right around here--which I don't think is as reflective of where there are cats that need help and where there are large numbers of cats, but rather people's access to the service."

Additional perceptions:

Lack of accessibility to low-cost spay-neuter surgeries was perceived by multiple stakeholders as a problem in many communities; similarly, instances of individuals or groups traveling great distances to take advantage of low-cost spay-neuter services were reported.

- HS-3: "...I still receive a lot of calls from people who just, you know, they either can't or don't want to trap. But, it is from the most eastern end of our county to where we lie—it's

like a 45-minute drive—so there’s a lot of people who aren’t going to get up early and drive cats out here and pick them up the same afternoon....”

- HS-7: “We refer people, if they want to get [community cats] fixed, to [a neighboring county’s] humane society--to their low-cost spay-neuter clinic. But other than that, no, we don’t typically refer them to a lot of places just for the simple fact that there’s not a lot that are really local to us.”
- HS-7: “We’ll transport cats to [a community two counties away], we go [to] their clinic twice per month—so we will actually transport public animals as well as our own up there. So, if somebody wants to get a feral cat or a stray cat fixed, we’ll transport them to [that community’s clinic] for them.”
- HS-5: “I met some ladies out in the parking lot last weekend and they were from [neighboring state] and they run a little rescue and she said, ‘This is our 400th cat we’ve had fixed here.’ So, you see we’re working for TNR and we’re working for all these other organizations because they can’t afford to go to a private vet....”

It was also revealed that the acquisition of private grants is often essential for low-cost spay-neuter clinics to assume central roles in TNR programs.

- HS-4: “I don’t want to take credit for [nearly doubling the number of spay-neuter surgeries on unowned cats from the previous year]....We also had funding. We had funding from the [local foundation], so we were able to do feral cat surgeries for free....[I]t was the actions of the community foundation that made it possible for people to really take advantage of that. I think it not only was an avenue for people, a resource to get outdoor cats fixed, but also I really think it planted a seed in a lot of communities.”

- HS-10: “We use third-party clinics [to sterilize community cats as part of PCM-2]....They are very affordable and because we are all non-profits, we can get collaborative grants or individual grants to keep costs low or offset them altogether.”

Funding

More often than not, participants indicated that funding was a major consideration in the formulation of strategies used to address unowned cat populations. Perceptions varied by stakeholder about the impact of funding issues. Several stakeholders considered the acquisition of necessary funds to be a substantial obstacle, while it was described as less of a problem by others.

- HS-3: “...[R]ight now we don’t financially have the resources, either [to fund a TNR program]...we’re not even at a point where financially we could even think about expanding....It’s just, we’re doing a great job; we’re rescuing lots of animals, but building capacity like that really takes time....[I]t took us two years to get the funds together to build [a] medical suite, so it’s like baby steps in the non-profit world, right?”
- HS-2: “...Our demographic is really kind of interesting: So on the eastern side of our county there is poverty and it’s not super wealthy—there’s a lot of farmland....[A]nd, then, the western side of our county is very wealthy....We are very lucky our area is super supportive of what we’ve done.”
- TRG: “The people that I do [TNR] for will generally pay for the surgery. We have a clinic that we work with that offers a \$30.00 feral cat package. On occasion, they get grants and they’ll either do it for free or for \$15.00, which is great but we can’t always count on that. So, the caretakers will pay for the surgery and, like I said, my time and all

that is donated. I do tell them that I don't charge for the service, but it's nice if they can donate anything to help with gas because it's 100 miles up and back to the clinic—25 miles each way, so total 100 miles for a load of cats—so [donations for gas] help a little bit.”

The importance of private grants in funding collaborative efforts—such as associated with PMC-1 and PMC-2 (both described in an earlier section)—was emphasized by multiple interviewees. In fact, private grants were the most frequently cited source of funding used in the management of community cats. The majority of participants representing humane societies/shelters indicated that they have received grant money from private organizations for this purpose. Ohio-based foundations were reported as sources of such funds as often as national grant makers, such as PetSmart Charities, Neighborhood Cats, Best Friends Animal Society, Maddie's Fund, or the ASPCA. It was noted by multiple participants that targeted TNR is now a required part of proposed strategies in order to be considered for a growing number of private grants.

Several interviewees maintained that grants for TNR would be unobtainable until local laws which prohibit the practice were changed. Two interviewees from the humane society/shelter group reported no organizational experience applying for grants. One dog warden expressed interest in pursuing private grants in the future, while another noted past experience doing so—though both for the spay-neuter of dogs rather than cats. The TNR-cat rescue group participant reported being in the midst of applying for grants for the first time. Two stakeholders expressed dismay at the perceived criteria used to determine grant recipients.

- HS-7: "...[W]e get grants from the [name of county] Foundation. They'll give us a couple of thousand dollars every year. We are looking once we get the low-cost spay-neuter clinic open to unowned cats to applying for more grants to help with that. A lot of grants we've looked at, you have to have an operational clinic to receive them."
- HS-5: "About the only grants we get consistently—we just got about \$25,000 from them yesterday is the [name of Ohio-based foundation]. I'm sure you're familiar with them. They are wonderful and we have benefited from their money for, oh God, this is the third program we've run through there...."
- HS-6: "...[W]e actually went out and we got some grants that covered not only the actual hard start-up costs for the equipment [for an in-house clinic], we needed to put in a little room renovation...and to buy all of our initial supplies and pay those salaries plus a buffer built in....We built into the grant specifically the need to have some kind of buffer dollars that would help us through that period....We figured it was going to take us a year."
- HS-6: "We would like to expand the program [to include targeted TNR], but until the ordinances are changed, I'm not going to think about going after grant funding out there that I might be able to get for TNR to expand our existing program. Because if we can't actively trap and release, then, I'm not going to get any of that funding and it will be a waste of time."
- HS-9: "We have met a couple of council people that are really into [TNR]. One of the ladies has a huge cat problem in her ward. She's always getting complaints about them. So, she's like, 'If you can get a grant, use me—use my ward as a test.' And I said, 'Well,

yeah, we could if we can get the ordinance changed.’ But no, we’re not going to get any grants until we’re able to do it legally.”

- HS-4: “...PetSmart Charities, [targeted TNR] is really their focus. If you’re not targeting specific zip codes for TNR, you’re probably not going to get the grant—they’re really pushing the targeted TNR. It’s the next wave of feral cat advocacy.”
- DW-3: “We do apply for the Ohio Pet Plate Fund, which is for spay-neuter of dogs, for us. We have gone after other grants, but it’s a little harder to get spay-neuter money being a dog warden. If you’re a humane society they want to throw money at you, but the guys that are in the field, the first responders so to say, they don’t want to give that money out as freely because we’re not a 501(c)(3).”
- HS-10: “We have a tiny budget. So, when you’re applying for grants the budget that they give you in the grant oftentimes is a reflection of the budget of your organization. I actually find this frustrating because it actually doesn’t necessarily cover the scope. I wish they would look at the numbers of the organization--sometimes these two don’t necessarily agree. You know, we are probably... the second highest volume shelter in [this part of the state], but our budget is not a reflection of that...since we focus most of our efforts--instead of on fundraising--on animal care. We have a significantly smaller budget, but we can actually care for more animals because so many places fundraise to fundraise.”

Several participants representing humane societies/shelters expressed a desire for local governments to help fund non-lethal community cat management strategies--especially emergent methods like targeted TNR. No government funding was reported with the notable exceptions of PMC-1 and PMC-2. The perceived influence of potentially conflicting organizational

objectives—animal care and fundraising/budget balancing—was addressed, again, by several stakeholders.

- HS-8: "...[Y]ou know we've explored [sources of funding for community cat management] like even if our local cities, the government entities, would maybe contribute some of those costs, we could put a big dent in the issue, in the problem."
- HS-6: "...I would hope over time that local governments would start to pony up a little bit if they start to see...for local municipalities that are trapping and euthanizing, if they start to see that with TNR being done that those costs could actually go down. You know, TNR is going to cost more than trapping and euthanizing cats—there are just more moving parts—but what you're not doing [with trap and euthanize] is ever making that expense go away. So everybody that's been trapping and killing cats are trapping and killing as many cats now as they were five years ago. I mean if it were working, we wouldn't be having this conversation right now."
- HS-10: "...[O]ur mission is three-fold: rescue, care, adopt. Nowhere in there is anything about money. It's not about money. Resources are great, but sometimes it's just actions that matter. [Money] is a means to an end. It's not the end."
- DW-3 "If you look at the Ohio Revised Code, there's things in there that allow for [a] humane officer to deal with cats. It becomes a funding component for them. Then, they fall under a humane society and some humane societies do it really well. For others, it is a financial burden; you know, you bring in a bunch of animals then you have to take care of a bunch of animals. And, if you don't have the revenue stream coming in to support that, then, you limit the amount of animals coming in—that's where I think it all boils down. If a cat gets hit on the side of the street, do you just leave it die out there? There's

just not a lot with cats. It is an issue. Where dogs they have released the funding source and at least there's control over them. You have an avenue to go, but with cats there's absolutely none."

Relationship Dynamics: Resistance to Change, Competition, and Mistrust

Multiple study participants cited resistance to alter the status quo on the part of other community cat stakeholders and competitiveness between organizations as hindrances to the successful management of community cats. Additionally, feelings of mistrust regarding the organizational agendas of fellow stakeholders were expressed by a number of interviewees; antithetically, belief in and appreciation for symbiotic relationships between agencies were articulated by participants, as well.

- HS-4: "Like I say, I think it's more of, 'This is how we've always done it. And, yeah TNR works. We know the data. We know the research.' And, yeah, it sounds great to talk about it, but there's still that component of, 'Hey, I'm retiring in ten years. Why am I even going to bother trying to launch something new?' I just feel there's a resistance, not just for TNR, but resistance to [change in general]....[If I believe my own eyes, I see other communities moving forward and I see [local counties] kind of content to watch the world pass them by, I guess....[It's just such an excruciatingly slow process.]"
- TRG: "Unfortunately, [the local humane society] is one of the ones in the dark ages. They are not willing to work with any of the rescues....They've been this way for 30 some years....They have the money. They could spay-neuter every cat in the county and have money left over, but they just....It's been so many years, they are not about to change."

- HS-10: "...Like I said, instead of fighting against each other for homes, instead of fighting against each other for money, instead of fighting against each other, if we could work together we could save ten times as many lives....We all look at each other as competition instead of [for] collaboration. And it's a shame because it costs animals' lives—it costs lives and there's no doubt about it."
- HS-10: "...[T]hat woman with ten cats in her basement that she's rescuing, if she's got ten highly adoptable cats and I bring those in and I just send her three cats that really need a chance at recovering in a home rather than in a shelter environment--that would be more healthy, that would do better....Then shame on us if we don't take those ten cats that we can flip out of here real quick [while] she takes my three cats that need long-term care. Because now we've just increased the survival rate across the board, but we don't look at things that way. If we were having those communications with those people and talking to those people, we could save more lives, not less, and that's what it should be about."
- HS-7: "It would probably be beneficial if we could work with our dog warden more closely, but there are a lot of political differences between the two organizations and we probably haven't had a good working relationship with them in about four or five years. You know [the reason is] the butting of heads, how we operate differently....[S]o our agency has taken on all these [extra responsibilities] after hours when that's something they should be doing [but no longer do because of staffing cuts]. So, that has created a lot of animosity between the two groups"
- DW-4: "Well, I have proposed [fundraising ideas] to the SPA and the humane society, but they don't get along--they're at odds. But they're both 501(c)(3)s and there's

...[another] 501(c)(3) so each one of them could hold three [events] a year....So I proposed to them that they get together and form a group and each of them could hold one [event] per month...and they'd be able to split the proceeds from that....Even when you have new ideas and fresh ideas you can't hardly get it sold."

- DW-4: "And the other problem we have at the local level is our humane society, they are overwhelmed with cats. They probably have 200 cats on the property right now. Dogs they'll put down without a problem...cats, they'll spend thousands of dollars a month on cats that are old and needing medication....It's really putting them in a bind with poor management."
- HS-4: "...I think as far as collaboration, kind of that breaking down the wall and really working together, I hate to exclude...I call them 'rinky-dink rescues.' They all tend to fight amongst themselves a little bit—they are all very territorial. I'd like to bring them on board, too. Because I think as much as the small rescues tend to in-fight, I think TNR is the one part of animal rescue that is so focused and it's so easy to understand--I think it's the one thing that all the rescues can agree upon, whether they fight about everything else, that's the one thing they can kind of rally around and agree on."
- DW-3: "I personally feel you have a humane officer that is under a 501(c)(3) non-profit organization, an organization that bases its funds on community support and donations. Anytime that you have a law enforcement component there's always going to be a side where somebody is not happy with that. You're going to make a decision that people are not going to like. Personally, I think that that people are looking at that side of it and sometimes seeing it more for the financial gain, rather than for the right reasons."

- DW-3: "...[I]f it's an abandoned cat, if it's a box of kittens abandoned on a porch front, it should not be an option whether or not a humane society or an APL takes those animals in. If they're abandoned, you really don't have that choice, I feel. And right now, they do and there is nobody really holding feet to the fire with that because you can't force them into a position to not having the funds to take care of them."
- HS-6: "Our primary mission is protecting the animals...we are here to protect animals from people and our friends in animal control are there to protect people from animals, whether they're dangerous or nuisances. That doesn't mean that people who are protecting people from animals don't care a lot about those animals and aren't looking for ways to better serve them, too."
- HS-6: "So, in a lot of cities relationships between private organizations and the public organizations tend to be a little adversarial and that is far from the truth here....I think that we have such a phenomenal collaboration in this county. We have an active transfer program between agencies and we work well together, we play well together....I think we all have our limits and we all have what our core missions are and in some ways they're different. But, in a way, they are all so much alike in that we all want to see more animals go home—whether it's to their own home or new homes. I think we're all about doing what we can to help each other."

Mindset

Many interviewees representing humane societies/shelters expressed enthusiasm about the public's changing attitudes toward unowned cats and the acceptance of non-lethal community cat management strategies, like TNR; although such optimism was not universal. It was noted by several participants that public misconceptions persist regarding the meaning and use of the term

“feral cats.” HS-10 asserted that misunderstandings about the differences between socialized and unsocialized unowned cats are at times a hindrance to acceptance of programs like TNR.

- HS-2: “The times are finally changing where there’s a sort of cat revolution happening....[W]e need to retrain the public. You know, what we trained the public for so many years was, if you see a cat outside you need to bring it to the shelter and we’ll adopt it. Well, obviously, we all know we are not going to adopt our way out of overpopulation, so offering TNR programs and just educating people that an outdoor life isn’t the worst life. Again, if they have someone who cares about them and they don’t mind letting them hang out, that’s usually better than most get....[T]here are so many feral cats that are still being euthanized in shelters.”
- HS-4: “...I think we started kind of entering into this point where feral cats have entered public consciousness. I think we’re there. I think people understand what feral cats are. They understand what TNR is. I think feral cats are following the same kind of trajectory that pit bull dogs did several years ago. It was like, ‘No, pit bulls are terrible,’ now pit bulls are very popular. I think that feral cats are following that same kind of path into public consciousness. I’m not saying everybody is going to run out and start doing TNR—it would still be a relatively small portion of the population out there doing it—but I think people are grasping it.”
- HS-2: “Most people—there have been studies done—you know, if we could remove these cats or just leave them alone what would you want? And, most people always choose to leave them alone. But again, if we can spay-neuter them and vaccinate them, and make them healthy cats, even better.”

- HS-3: "...[A]s far as the stigma with stray cats, I think we've come a long way and we're definitely heading in the right direction. But again, just like anything with public opinion, people love to use the word 'feral' and they have no idea. Like, 'It's a feral cat and I'm holding it in my arms.' If it was feral, you wouldn't be holding it, you know what I mean. People love to throw the term around now. Like, if it's truly feral, you're not touching it, ever. So, that kind of causes some confusion at this point, but ...I think that there are really people out there that want to help and that get really excited when they find out about TNR..."
- HS-10: "...[A]ctually, that becomes a huge debate out there—and most people misunderstand this. We get people all the time that say, 'Well, I took in a feral cat and it's just fine and it's playful.' And, I want to say to them, 'Well, you didn't take in a feral, you took in a free-roaming stray that was shy at first—maybe hadn't had a lot of human contact for the last few months or a year. But, it's still just a stray and that's why it was able to settle into the life it was able to lead....[I]f you're taking in a true feral that's three years old...you're basically taking in the equivalent of a raccoon into your home.' So, understanding that logically and trying to make people understand that becomes difficult because a lot of people don't believe in releasing feral cats—that it's cruel or unusual to release these feral cats back out into the wild—because they had some experience with a free-roaming [stray] cat."
- HS-3: "...[T]hen, there's the people that just think that there's an agency that's just going to come out and round up 100 stray and feral cats and just, 'Get them off my property.' You know, that's not something that's going to happen in [this] county. It's kind of like, we'll do the best we can in our little part of the world....[W]hen it comes to TNR the

options are out there, but people have to take the initiative to kind of make it happen. The traps are out there—they could be borrowed. There are great prices to get it done and [trappers] who could maybe even assist.”

Participants had varying perspectives regarding approaches of other stakeholders in the management of unowned cats. Most called for more communication and collaboration between public and private entities. Some called for a shift in mindset within the sheltering community regarding the management of cats—HS-5 admonished the influence of the “no-kill” mentality, while HS-6 asserted that stakeholders must keep an open mind to trying new approaches. HS-4 pointed out that, in addition to benefiting homeless felines, the non-lethal management of unowned cats can improve the public’s perception of stakeholder organizations.

- HS-8: “I think [community cat management has] never really been laid out on the table to be discussed. I think it’s just been one of those things where it gets shoved under the rug and it’s a big can of worms to open up. I just think...it just needs to be discussed among the local humane societies, shelters, and TNR people with the local cities.”
- HS-10: “So when we look at cats, in general, marketing—how do we market our adoptable animals? How do we deal with increasing homes we find? How do we stop looking at cats as a problem? I think that [attitude] becomes community-wide. So, if we’re all looking at them as a problem, then, the community looks at them as a problem. So, we need to start looking at cats differently than we do.... It feels to me that we are always just...everything on the cat side is just you playing from behind. I just feel like everybody is giving in—almost wants to throw the towel in on cats.”
- HS-5: “...I will say, ‘Here’s what we are, we are a no-birth shelter. We don’t believe in animals being born just to suffer and die—it’s just stupid. So this has become my new

mantra when people start on this no-kill crap; I tell them, ‘No-birth, no-birth, no-birth—that’s what will fix it. That’s what will stop people from killing animals. When there aren’t so many of them that there’s nowhere for any of them to go—[then] that becomes a reality.’”

- HS-5: “...So when you show up at the door [of a ‘no-kill’ shelter] with an animal that isn’t particularly desirable [including unsocialized cats], sorry, they’re not going to take it. Because they’re not going to kill it and that’s the problem and they know they can’t move it, so they just say, ‘Sorry.’ Well, where does that leave the animal?...Today there’s too much of that ‘sorry’ business because Nathan Winograd decided that we should be a ‘no-kill’ nation. Well, you know, that’s a nice story...but it’s not really realistic. Even here in Ohio where we can do pretty good [sic] with dogs—in a lot of places they can’t do that good with dogs, either. And so, I think that the ‘no-kill’ movement...it’s a nice idea, but that’s a terrible name for it...because the public somehow made the leap from ‘no-kill’ to we take everything and don’t kill anything. They don’t understand that if a shelter wants to be ‘no-kill,’ they don’t take everything because everything can’t be adopted.”
- HS-6: “We have to be willing to try things and all trust that we all care very deeply about these animals and nobody cares more or less. But, there is no solution that says we can keep bringing [cats] in shelters at the numbers we’re bringing them in and adopting them out at the rate we’re adopting them out—and we’re adopting them out at a higher rate than ever before because of the adoption promotions we’re doing, but not enough to keep up with the rate at which they’re coming in—and then tell us we have to reduce euthanasia without handling that excess intake somehow. And, if there is a humane way

to do that, [which] makes sense—and some data is starting to show [Return to Field] is a viable and reasonable alternative—we need to try it.”

- HS-4: “Alexandria, VA has a good program. [Name], she’s one of the animal control officers down there...and people hated her and she had rocks thrown at her truck as she drove through the neighborhood. Now, all of a sudden, that they’re doing TNR—that’s their official policy, so when they get a complaint about cats getting into the trash cans, they go out and TNR them—she said she’s gone from being a bad guy to a good guy. People come out and she’s kind of like a local hero. That’s kind of a personal story that has, I think, a lot of impact, too.”

Moreover, a number of interviewees expressed differing opinions regarding two additional issues: (a) a perceived disparity in attitudes among stakeholders and the public towards dogs and cats, as well as the appropriateness of using a dog management paradigm as the model for cats; (b) the quality of life experienced by unowned cats. On this topic, most felt that community cats are capable of leading satisfactory lives outdoors, although again, this view was not shared by all.

Attitudes: Dogs versus cats and the dog management paradigm:

- HS-5: “I mean the first thing that comes out of people’s mouths when you talk about cat problems...[when we say,] ‘Why haven’t you called us?’ [They say,] ‘Well they’re not our cats.’ It’s the first thing that comes out of their mouth. You know, they’re never anybody’s cats. And, you never hear that about dogs. How often do you hear that about a dog? How often do you see ‘free puppies’ signs? You’ll see a lot of ‘free kittens’ signs...don’t see ‘free puppies’ signs. Cats are absolutely 20 years behind--there’s not

even a question. And I knew that when I got into this, but anyway, it's interesting. Cats are just an interesting phenomenon. They truly are."

- HS-5: "As far as collaborating with other organizations, when nobody can take [a cat], there's nothing like a cat exchange. Like, we exchange dogs all the time...we take dogs from [another local facility] that we can adopt out and they'll take dogs from us that have...long-term medical problems or something like that. They'll take a dog...because they're able to deal with that. Maybe we'll [take] for that problem dog three adoptable dogs to give them some space. So, we'll work out deals like that all the time. With cats there's no room to move...."
- HS-10: "You have to keep [collaborative] relationships going where the need is....We don't complain when [a neighboring] county kennel has 300 dogs, but we complain when the little rescue has 300 cats. But, we go and rescue from [the neighboring] county and pull dogs from [the neighboring] county, but we don't go to the little rescue and pull cats from there. Like I said, there is a rift between cats and dogs. We just don't think about them in the same terms—that may be something that needs to change the most."
- HS-8: "I believe cats should be just like dogs. That they should have to have a license and that they should not be allowed to roam free. You know the whole mentality with dogs has changed where, you know, years and years ago people tied their dogs up to a dog house and the dog stayed outside. Now, dogs have become more of a family-type entity, where cats—we try to always push that your cat's going to live longer if you don't let it outside; it's not going to get hit by a car or exposed to diseases or attacked by wildlife, things like that....I think it just would help a little bit in that mentality that you have to

license them. If that's the law, people are going to be less likely to just let them roam free...."

- HS-5: "...I'll send you back to the beginning. In the beginning there were probably as many dogs as we deal with cats now....[I]n the year 1999...in [our]county they took in 3,200 dogs and they killed 2000 of them. Last year in [our] county, they took in 1,100 dogs and killed like 20. It's just the thing for dogs has gotten phenomenal. They ship them all over the country....When you talk to people in rescue they virtually all do dogs—this is where the action is...dogs, dogs, dogs. So for dogs, the 'no-kill' thing, maybe it makes more sense because there are actually places for these animals to go if they are really adoptable. Cats, on the other hand, not so much."
- HS-6: "I think that's all part of...changing the mindset. Cats and dogs are not created equal and the needs of each animal are not equal. Dogs can do a lot better in a shelter environment and people are more likely to find their [lost] dogs in a shelter, whereas, even though that rate [for dogs] isn't even that terrific...it's better than cats."

Quality of life debate:

- HS-6: "...We are going to come up against our opponents [to implementing a targeted TNR program]—some of them are going to be cat advocates....PETA's attitude is that it is 'trap-neuter-abandon' and especially that's a challenge with shelter-neuter-return or Return to Field. Now, you're talking about even starting to think about putting some friendly cats back out there and that's really making some folks nuts....[In order to change the minds of opponents], you ask them to come in and start doing the euthanasia."

- HS-4: “I think that’s the philosophy PETA has, well these cats are better off dead because there’s a chance that they might suffer, and I disagree with that....[Community cats] rely on humans for food, water, and shelter, but that’s kind of a cat at its most natural state out there and ...my own opinion and experience is that they live happy lives. But, I just want to intervene in their lives for a couple of days and remove the possibility of new kittens from the equation. I think that’s where we differ. PETA thinks the best interest of the cats is to be gone....I’m not a huge fan of [PETA] because of that and because of a lot of things, but I think that’s a huge obstacle for us....When we were dealing with a [local] city council that actually came up. Somebody said, ‘PETA agrees with us that we should be exterminating them.’ So, they’ve been kind of an obstacle over the years.”
- HS-5: “[Alley Cat Allies’] big propaganda is, well, if you just trap them and kill them, then, other cats will move into the territory. Well, they’re right. It’s just that those cats that move in the territory were out there--they just didn’t move into that territory. And as far as I’m concerned, humane euthanasia, trapping them and humanely euthanizing in one spot--keep sucking them in there like a bath tub drain—I don’t necessarily feel like it’s such a bad thing. Because those animals do not have a good life or good quality of life—most of them are starving. Most of them have disease. They get the shit kicked out of them. They have to live in horrible conditions...I don’t see where they have it so good.”
- HS-5: “...[T]hey all get a sedative. Cats that get fixed, it’s the same drug if the cat is getting euthanized—one wakes up and the other one doesn’t, it’s the same thing every time. And yet, because we have a right to life mentality in this country, [people] have a really hard time with that. And I understand. I don’t like to kill animals, I dedicated my life to this, but I know that if that cat doesn’t get fixed or put to sleep that’s not going to

be the only life that suffers. I know that. [People] don't want to face that reality even though they've got to know it. It's a pretty simple thing—they're going to make more [cats], but getting them to bite into that is....I don't know why it's so hard."

- HS-2: "We've all heard of the vacuum effect. It's not a theory now, it has been tested. And it's true that if you take a bunch of cats away from an area and you still have shelter and a food source, you're going to get more cats. So, I feel very strongly that TNR is the answer. You know, establish a colony, make them healthy cats—spayed and vaccinated—and you're just going to have the best outcome for everybody, cats included."
- DW-2: "...So, I have a problem [because] cats get into a lot of trouble outside. And, I also think, you know, you have to be respectful of your neighbors. Your animals are your responsibility and they shouldn't be on somebody else's property, you know, hunting at their bird feeder or...digging and using their gardens as litterboxes. Not everybody wants that."
- HS-2: "I think, for me, [the goal] is the education piece of just trying to rewire people's thinking about free-roaming cats and feral cats. To me, that's where my passion lies. Obviously, I love the days that I get back in the clinic prepping for surgeries, but I think the education piece is, well, we're going to win this battle of just re-thinking free-roaming cats—realizing [TNR] is the answer."
- HS-6: "[W]hat we're really doing right now is telling people we're not going to bring feral cats into the shelter. We have what's behind door number one and what's behind door number two, and if the cat is feral and has no chance at adoptability we are not going to bring that cat into the shelter just for the purpose of euthanizing it, unless the cat

is sick, injured, can't be humanely returned to the street or there is some really pretty identifiable threat that really makes it unsafe to return the cat.”

Perceived Importance of Community Cat Caretaking

Wide-spread agreement was present among stakeholders regarding the significance of the role played by community cat colony caretakers in the TNR process. Many participants who expressed belief that cats often experience an acceptable quality of life outdoors, nevertheless acknowledged that ongoing care and management of community cats was essential. One of the two participants who expressed doubt that free-roaming cats can live good lives cited potential lack of adequate continuing care as a major source of concern. Several interviewees commented on the significant commitment of both time and money commonly required of colony caretakers; several emphasized the importance of education and the need to properly train colony caregivers.

- HS-8: “[TNR] is a great program. It does take a little while to see the impact, but from a humane standpoint....I think that by monitoring these colonies, spaying and neutering them, eventually it'll catch up and those colonies will diminish.”
- HS-5: “[W]hat I find too often with the propaganda that Alley Cat Allies puts out about [TNR]...is that they emphasize the trap-release, but they don't emphasize enough that once you let the cat go it still has to have a caregiver and you still have to watch out for it and you can't just forget about it. It's still a domestic animal and it still needs to be fed and, quite frankly, by law it's supposed to get a rabies vaccination [the] next year and one every three years after that.”
- HS-3: “...TNR is just one step, you know, if you're not going to provide them with a caregiver—with shelter—are you really doing the cats any justice?...[A]t the end of the

day...it's a tough thing...all of us care about animals and want to see the animals live, but we don't want to see them suffer, either...If you're just going to trap them and re-release them and they still might be freezing to death [in winter], it's kind of tricky. So, in a perfect world, I definitely think there would be more, you know, collaboration...and just kind of educating on TNR [including follow-up caregiving] and how it really is effective at eliminating the numbers and things like that."

- HS-5: "...[People] will talk to us about fixing [a] cat and letting it go and we'll say things like, 'Where will it live?' [They'll sometimes say,] 'Well, I've got a barn.' Some of them will say, 'Well, I don't know, maybe it will go under my porch.' Then, I'll say, 'Well, let me ask you, if it's going to be ten degrees tonight, will you sleep under that porch?' [They'll say,] 'Well, no.' I'll say, 'What if you have a box to sleep in?' [They'll answer,] 'Well, no.' I say, 'So, it's not a good place.' That kind of thing. I don't know why people don't understand these animals get cold, hungry, and they suffer and get sick. It's so unmerciful in so many ways that [it] always scares me a little bit...I'm glad that [people] are there to get the cat fixed, but I want them to think about the cat's life, too."
- HS-5: "[L]et's say you're taking care of 20 or 30 cats in a colony, it's kind of a full-time job...who's going to dedicate that kind of time and energy? You're feeding 20 cats in some alley in a city, how are you going to control them?"
- HS-6: [S]urprisingly, there actually is a decent number of people who are willing to [act as colony caretakers]...[S]o it's like there are plenty of folks out there who I think would be willing to be a neighborhood captain and sort of bear some of that burden [to care for unowned cats]. I think sadly we don't know how much people are willing to help because we don't ask them, ever. We just assume nobody's going to want to do it...."

- HS-2: "...[T]here are a lot of people out there who are in a caretaker role for either colonies or just the cats in their barn."
- TRG: "That's where the education part is coming in. Educating people on what [community cats] are, how they live, what [people] can do to help them and, hopefully, getting more people involved with caring for them. Instead of just saying, 'Oh well, there's 20 of them behind here, can you trap and fix them and then go seven days a week and feed them and provide them shelter?' So hopefully, like I said, I have noticed an increase in people wanting to do it and being compassionate about them...."
- HS-3: "You have to have educated people that know what they're doing to care for these colonies and to have the resources, in return, to hopefully...to rehome the [cats] that are friendly. [Caretakers must] be educated enough to know how to maintain feral colonies."

Multiple interviewed stakeholders indicated that they practice TNR, either on their own properties or for others on their own time.

- HS-3: "I have feral cats that I care for where I live....I've just been able to trap them and bring them in here...The one that I thought for sure was going to be feral ended up being as friendly as could be and the one I thought for sure would end up being nice and being adoptable, she was re-released and she's still living in my back yard. But I have that [option available to me] because I work here. I've certainly done some TNRing myself, you know, they have houses, they get fed—canned food twice a day—they're actually just as spoiled as the cats inside the house...."
- HS-5: "[People ask] '...[H]ow did you get so many cats [on your own property]?' And I tell them, 'Well, here's the thing, if you neuter them and you feed them, they live a long

time—so this number of cats has accumulated from every year [I] foster for the shelter. Well, this one is really friendly, but this one, you know, doesn't like other cats. Oh well, this one's black and nobody wants it. So, every year I accumulate one, maybe two, and now there's fifty or however many there are.'"

- HS-4: "There was a period in my life, I think it was in 2008, I spent a third of my income on spay-neuter surgeries and that was kind of a hardship for [my family] obviously, but since then, like I say, I've got these donors on board and they basically keep my head above water with their donations—[they] kind of match what my activity level is."

Desired Community Cat Management Programs and Collaborative Efforts

When asked to describe the types of collaborative efforts or general improvements to local community cat management that they'd like to see occur, a majority of interviewed stakeholders indicated a desire for more collaboration with either government agencies or private animal welfare organizations. Specifically, public-private collaborative TNR or targeted TNR programs were the most frequently cited goal. Expanded public education programs and the idea of a community cat stakeholder summit were among other desired initiatives cited. The following are thoughts expressed by each study participant:

- DW-1: "...[P]eople, you know, they're always looking for, say, a free route to deal with the [community cat] problem, instead of paying. Like I said before, we would have them contact a nuisance wildlife trapper and basically what he does is he goes out and traps them and charges them for the services, then, he brings the cats [to the local shelter]. So, you know, any resources that can be used...to where we could have that information for people to pass along, I think it would be beneficial."

- TRG: “I would love to see more cities enacting TNR programs, especially [in my area]. I would love to be able to work with the humane society and get programs going. We’re not a big city, but I see what Pittsburgh, what Washington DC, what so many other cities are doing and there’s no way we shouldn’t be doing it here. And, it’s just frustrating....”
- HS-1: “I think if we had more time available we would definitely do more collaborating. You know, there are only five people on our board and we all work full-time and we kind of, at the moment, do this just in our free time....We just try to help folks who are mostly able to work with us to help themselves, essentially. You know, like, if they can just sign up, we try to help with the expenses of spay and neuter. But, we hope that they’re able to sign the cats up and transport them themselves....”
- HS-2: “We have a county to the north of us that, unfortunately, they don’t have any sort of feral cat program or anything like that. I would love to work with them in whatever capacity. I think they have a clinic, but I don’t believe they have the capabilities to do any sort of feral spay-neuter. They work with a mobile spay-neuter clinic...but what they focus on, I believe, is owned animals. They don’t do any TNR....”
- HS-3: “...I would love to see us doing these successful programs [TNR and targeted TNR] and wherever I see animal control facilities that are not only supporting TNR, but are out there doing that, I think that’s fantastic and I support it a million times over.”
- DW-2: “I guess [I’d like to see more] education. And, I don’t know at what stage or age you get to people—and this would apply to dogs, cats, any animals—that it is a responsibility...and that they are living, breathing creatures. And even though the law says they’re personal property, which is fine, you still have an obligation to [them]....[Y]ou know, I mean a lot of people, especially after 2008 when everybody was

losing their jobs and losing their homes, we saw so much abandonment of animals--that's still your responsibility. You know this all is coming, so figure out a way that [your pets] are either placed in a shelter, a rescue or with someone...prior to just abandoning them....How do you nurture that animal or have that animal for five, six, eight, twelve years and then just walk away from it?...I've never been in that position, so I'm not judging. I just don't understand it."

- HS-4: "...[A] small first step would be a city saying, 'OK, we're allocating x-amount of dollars in the next year's budget or in next year's general fund for TNR and residents can use that money for spays and neuters for outdoor cats.' I think that would be a tiny little step. I think that would be great and...would plant some seeds and get people involved. It would show people who are doing TNR, 'Hey, the city is supporting us instead of battling us.'...[O]bviously, at the other end of the scale would be...animal control is now going non-lethal. When you call about complaints, 'I'm sorry, we don't take cats anymore, but we will TNR them.' I think that's the other end of the scale and, obviously, [my organization's] role would be providing the surgeries and providing high-level care...and also networking. I think people are more inclined to network with someone like [my organization] than a government agency."
- HS-5: "[F]irst thing, no pound or shelter should be adopting out any cats without fixing them, or dogs, but cats, especially. They just shouldn't be doing that. Even these pet stores—I think that's one of the other frustrating things--you know, they take kittens from people who don't fix their cats. And, I [get] a lot of calls in the fall, 'Yeah, can you take my kitten?' Of course that's the hardest time....I say, 'Well, we can talk about it, but you've got to get your cat fixed. Why isn't your cat fixed?' And, they tell me it's like the

third litter or whatever and I'll go, 'Well, why isn't your cat fixed?' [They respond] 'Well, the pet store always took the kittens. It wasn't a problem.' Not only did they let this person continue to be irresponsible, they gave the kittens away without fixing them!"

- HS-6: "In this state, in particular, [state-wide adoption of targeted TNR] is hard to fathom. So, I think you have to start with baby steps. I keep hoping we can get [municipality] to go in this direction. Then, if we can show a success rate, in general what other government agencies or governments are looking for. If somebody else has done it and it went OK—they didn't die and their constituents didn't burn down city hall in protest—I think it could be [implemented more broadly]....I think the value in folks doing research on this is, you know, when we get into this we already know we've got people from the wildlife and bird community who are going to be all up in arms. And, you have people from the rabies and toxoplasmosis camps that [say] this is all about disease spread...I think the more places that we can get data from that shows, 'No, no. That's just a big old myth.' And, we have some solid data behind it—we can actually start to get people past the fact that, well, people don't want the cats back."
- DW-3: "I've heard of a feral cat program—a barn cat program. One where farmers can bring in barn cats and then they exchange [them] for cats that have already been spayed or neutered that go back to the farmer. So, it's basically an exchange program. I heard about that somewhere, I don't know where. I do like that. That's one that you bring in a cat, you're getting a cat. It's not the same cat, but it is a true barn, farm-style cat."
- HS-7: "I would like to see just a more concentrated effort...managing large groups [of cats] that we have outdoors. And, [along with] the other agencies that we work with, also trying to educate people on the benefits of spay-neuter and TNR and everything like that."

I mean...what we try to explain to people is if you get everything spayed and neutered, eventually the numbers will go down—so just trying to get that information out to everybody.”

- HS-8: “...[B]eing able to [work] with local counties and cities to be able to come together with funding and programs to...help solve the problem...I think if we work together we can certainly do much more.”
- HS-9: “I’d kind of like to see a group of us, presidents or directors from various shelters, all get together and have some kind of seminar...or I don’t even know what to call it. Like where we all get together and we all work on our cities and say, ‘Look, we’re in partnership with [municipality #1], [municipality #2], [municipality #3], and [municipality #4] and...we all want it and here we all are, and...why don’t we all work on the same page?’”
- DW-4: “The TSC and Rural King [retail farm supply outlets] both have travelling vets that come in one Saturday a month at their locations and those operations seem to be doing OK....I don’t know if any of those organizations have looked into doing anything along those lines [mobile spay-neuter clinics] or if [a] local humane society...has approached them at all....From what I understand, the travelling vets seem to be doing OK. They offer microchipping and shots and everything, but they’re not doing spay-neuters....I don’t know if there are any plans for the future to be able to look at doing that.”
- MGO: “We have processed about 436 cats through the Mayor’s office in 2014. In the frigid weather—right now it’s negative 12—we are not getting many calls, but we expect

them to pick up as it warms up....I would say, [in total, resident calls about cats] have increased because the word is spreading that there is actually help [available].”

- HS-10: “So it requires a multitude of people—unless you’re working by yourself, you are collaborating....I just feel like the collaboration should never end. You should always be looking for ways to work together. Two people can accomplish more than one; three people can accomplish more than two. So, if you had a whole community behind you—a whole group of people behind you—everybody working together, you can accomplish anything.”

Chapter 5: Discussion and Interpretation of Results

Analysis of the interview data revealed a number of significant themes and elemental factors pertaining to public-private collaborative efforts in the management of unowned cats by non-lethal methods in the state of Ohio. Uncovered salient themes included a prevailing willingness on the part of interviewed stakeholders to collaborate and widespread support for non-lethal methods of control. In addition, a majority of study participants cited access to affordable spay-neuter surgeries as essential to the initiation of non-lethal management programs; indeed, such services were at the center of nearly all reported collaborative efforts which extended beyond the mere referral of complaints or inquiries about community cats. Two identified public-private collaborative non-lethal management programs that exemplified the convergence of these factors—stakeholder willingness to collaborate, preference for non-lethal management, and access to low-cost spay-neuter surgeries--exhibited potential to serve as models of best practice for other Ohio communities. Moreover, when asked to describe an unowned cat collaborative effort or management initiative that they would like to see take place, stakeholders most frequently expressed an eagerness for more collaboration on non-lethal approaches, like TNR. Many interviewed stakeholders expressed frustration over what they perceived as commonly encountered, and at times significant, impediments to such efforts.

Attitudes about Collaboration

General agreement existed among interviewed stakeholders that management of unowned cats was problematic in each of their respective counties. Importantly, a widespread willingness to collaborate on the part of both public and private entities to address this dilemma was revealed. This expressed spirit of stakeholder cooperation clearly appeared to be motivated

by a shared goal of fewer community cats—an occurrence widely described in the existing literature (Hadidian et al., 2012; HSUS, 2014a; Kortis, 2007; Slater & Shane, 2005)—and may present a basis from which the call for “coordinated action” among Ohio’s community cat stakeholders made by Lord (2008) can be realized. Due to the exclusively descriptive nature of this study, results are not generalizable; nevertheless, a clear pattern indicating stakeholder amenability toward working together to control community cat populations in Ohio emerged from the collected data. These findings are of particular relevance to the feasibility of pursuing collaborative community cat management strategies moving forward.

Attitudes about Non-Lethal Management

Widespread support was found among stakeholders for the use of non-lethal methods of community cat management. As noted above, only two of sixteen study participants expressed skepticism about the viability of non-lethal strategies, such as TNR, to control unowned cat populations in their respective communities. These two interviewees also voiced concerns about cats living outdoors; nonetheless, both participants acknowledged that the sterilization and releasing of cats back to where they were trapped was superior to no management. Again, although the sample population utilized for this study was not intended to be representative, a near-unanimity of opinion in favor of non-lethal management of unowned cats surfaced from the interview data. These findings were consistent with those of Wald et al. (2013), who reported that 83% of community cat stakeholders in Florida preferred non-lethal management of outdoor cats. In addition, accordant with the positions of Ally Cat Allies (2014), Hadidian and Weitzman (2014), Kortis (2014), Pacelle (2014), and Hurley (2013), a large majority of interviewed stakeholders expressed belief that lethal methods have been ineffective in controlling unowned cat numbers.

All interviewees were familiar with at least the basic concept of TNR. Stakeholder perceptions of TNR mirrored those of the broader notion of non-lethal management; in fact, many participants appeared to perceive the ideas as one in the same. TNR was almost universally viewed by participants across stakeholder categories as an effective practice. Multiple participants offered first-hand endorsements of its effectiveness. A majority of interviewees representing private animal welfare groups--with experience practicing TNR--indicated that adoption of socialized cats and kittens caught during TNR activities enhanced program results. In addition, most interviewed stakeholders acknowledged a growing public awareness and acceptance of TNR as an effective means of community cat management—public education campaigns were most often credited with this observed trend in public attitudes.

Targeted TNR was perceived favorably by all interviewees, about half of whom had previous knowledge of the practice. Those familiar with the notion considered it the “next wave” of community cat management, while virtually all participants hearing of targeted TNR for the first time, via brief description, expressed optimism about its potential effectiveness. Interestingly, two interviewees representing humane societies/shelters envisioned targeted TNR as an essential element of an all-encompassing “360” spay-neuter strategy, which would include provisions for sterilization of feral, stray, and owned cats within targeted areas.

Only four interviewees (all representing humane societies/shelters) expressed familiarity with the concept of Return to Field. The idea of returning socialized cats to the outdoors after sterilization aroused marked trepidation in multiple participants; nonetheless, three of the four familiar with the idea communicated strong support. Reactions were mixed among study subjects learning of Return to Field for the first time.

It appeared that revealed stakeholder preferences for non-lethal management of unowned cats were closely associated with positive perceptions about TNR, including optimism about the use of targeted TNR. Perhaps due to the general unfamiliarity of study participants with the concept of Return to Field, it seemed that perceptions of this practice played little or no role in formation of broader stakeholder attitudes about non-lethal management. Further research, perhaps a quantitative study measuring attitudes of Ohio community cat stakeholders, is likely needed to confirm these inferences; nevertheless, the positive perceptions about TNR expressed by interviewed Ohio community cat stakeholders as part of this study are consistent with public attitudes about TNR among individuals living in Ohio found by Lord (2008) and warrant consideration by decision makers.

Attitudes about Access to Low-Cost Spay-Neuter Surgeries

All interviewees representing private animal welfare groups indicated that access to low-cost spay-neuter surgeries was central to their efforts to manage unowned cats by non-lethal methods. Multiple participants representing humane societies/shelters reported a scarcity of local facilities offering low-cost spay-neuter surgeries, corroborating prior research which pointed to a lack of access to such services in many Ohio communities (Lord, 2008). A number of stakeholders indicated that private veterinary practices were generally not able to adequately fill such a role; multiple participants expressed negative perceptions regarding the affordability of spay-neuter services offered by private vets. In addition, a paucity of private veterinary practices operating in certain areas of Ohio seems to exist. Cleveland is illustrative; despite a population of just under 400,000 people, only a handful of private veterinary offices are located within the city's boundaries (C. Roscoe, HSUS Ohio state director, personal communication, May 26, 2015). It was suggested that high-volume, low-cost spay-neuter clinics are suitable hubs for non-

lethal management efforts within given communities--potentially acting as sources of instruction and equipment as well as functioning as clearinghouses for TNR-related data, in addition to providing spay-neuter surgeries. It appears reasonable to conclude that expansion of efforts to manage unowned cats in Ohio via non-lethal methods will require the formulation of strategies to improve access to low-cost spay-neuter services in many parts of the state. Such strategies will likely feature facilitation of collaborative relationships between low-cost spay-neuter clinics—whether independent enterprises or located within shelters—and other public and private stakeholder organizations.

Potential Models of Best Practice

Each one of the previously described themes derived from the collected interview data—stakeholder willingness to collaborate, preference for non-lethal management, and need for access to low-cost spay-neuter surgeries—would seem to be significant in its own right. When considered in aggregate, these discoveries appear to have profound implications for the course of community cat management in Ohio moving forward. Accordingly, two identified public-private collaborative TNR programs (PMC-1 and PMC-2) which incorporated each of these three components appear to be worthy of emulation by stakeholders in other Ohio communities.

PMC-1 and PMC-2 were alike in that they involved the collaboration of municipalities with private humane societies/shelters in the practice of TNR to manage unowned cats; however, they differed in design and sources of funding. PMC-1 depended upon residents and rescue groups to identify, trap, and return free-roaming cats, while the participating humane society's in-house clinic performed spay-neuter surgeries. City residents who utilized the service were charged only a nominal co-payment with the remainder of the cost subsidized by municipal

dollars; for those living in the rest of the county, a private trust offset the difference in cost over and above the co-payment. PMC-2 featured a private humane society/shelter handling the entire TNR process—although spay-neuter surgeries were performed at off-site low-cost clinics—initiated in response to complaint calls passed along by the city. Funding was acquired via a \$50,000 grant from PetSmart Charities to the municipality, which reimbursed the private humane society/shelter for services rendered.

The fact that these two campaigns differed in substantial ways is likely a testament to the flexibility of mindset often required to identify partnerships and programs which align with the needs and resources of a given community (Kortis, 2007; Slater & Shain, 2005). Irrespective of their differences, both of these collaborative non-lethal community cat management programs are worthy of emulation in other locations in Ohio because each appears to meet the challenge put forth by Lord (2008) to establish partnerships between government and the sheltering community, as well as takes advantage of the three salient conditions uncovered by this study—stakeholder willingness to collaborate, preference for non-lethal management, and the need for access to low-cost spay-neuter surgeries. Considering the strong favorability of targeted TNR among interviewed Ohio stakeholders—as well as its apparent emergence as an effective proactive strategy for managing community cat populations—it is important to note that neither PMC-1 nor PMC-2 included a targeted TNR component. The interviewed representative of the humane society/shelter responsible for PMC-1 expressed a strong desire to add targeting if/when local ordinances allow and funding is obtained. Although not a part of PMC-1 or PMC-2, it seems feasible that either of these potential models of best practice could be revised to include a targeted TNR component.

Desired Unowned Cat Management Initiatives and Collaborative Efforts

As part of their interviews, stakeholders were given the opportunity to describe the types of community cat management efforts that they would like to see materialize (responses provided above). Consistent with two of the three dominant themes that emerged from the entirety of the interview data—stakeholder willingness to collaborate and preference for non-lethal management—most stakeholders expressed a desire for additional collaboration in efforts to manage unowned cats; moreover, when specific aspirations were offered, interviewees cited implementation of joint public-private TNR or targeted TNR programs most often. Additionally, a willingness to accept incremental progress in this regard could be inferred from the comments of multiple interviewees--this was exemplified by the previously cited remarks of HS-4 in regards to obtaining municipal funding for a desired officially-sanctioned collaborative TNR program:

“...[A] small first step would be a city saying, ‘OK, we’re allocating x-amount of dollars in the next year’s budget or in next year’s general fund for TNR and residents can use that money for spays and neuters for outdoor cats.’ I think that would be a tiny little step. I think that would be great and...would plant some seeds and get people involved. It would show people who are doing TNR, ‘Hey, the city is supporting us instead of battling us....’”

Perceived Impediments

Despite the apparent widespread willingness of Ohio’s community cat management stakeholders to collaborate on non-lethal methods of control, many interviewees felt a number of obstacles inhibited the realization of joint efforts. Perceived impediments to collaboration varied

by entity; however, state mandate limitations were perceived to be the most frequent and formidable of those faced by dog wardens, while local laws and ordinances, where in place, were the greatest hindrances according to private animal welfare organizations.

Dog warden mandate. Due to previously described perceived state mandate limitations, the extent of collaboration reported by dog wardens was almost exclusively limited to the referral of calls about cats to private animal welfare organizations. Three of the four interviewed county dog wardens indicated that they referred calls about community cats to private humane societies or rescue groups—this was consistent with the findings of this researcher’s aforementioned preliminary survey which found that 62% of dog wardens referred calls about unowned cats to private animal welfare groups. Correspondingly, six of ten interviewees representing private humane societies/shelters reported relationships whereby they accept calls about community cats referred by county dog wardens. Additionally, the TRG communicated being in the process of cultivating a relationship with a new dog warden, who seemed agreeable to the idea of referring calls about community cats. Furthermore, half of participating dog wardens indicated that they would be willing to expand their duties to include direct handling of unowned cats if allowed and funding became available.

It would seem reasonable to infer from the cited data that despite a general willingness on the part of Ohio county dog wardens to collaborate with private organizations in the management of community cats, expansion of current efforts beyond the referral of calls may be difficult without revisions to the dog warden mandate or, at minimum, the allowance for exceptions to the mandate based upon the needs of particular counties. Paradoxically, it appeared that such allowances may already be possible, as it was noted by several representatives of humane societies/shelters that one county dog warden was known to directly handle unowned cats;

although, dog wardens interviewed as part of this study seemed unaware of such a potentiality. In addition, it was indicated by a board member of the Ohio County Dog Wardens Association (when contacted while doing research for the aforementioned preliminary study) that dog wardens in some of the larger counties in the state handle cats as part of municipal animal control contracts (A. Snyder, chief dog warden, Wood County Dog Shelter, personal communication, December 3, 2013). Collaborative constraints of this type are likely unique to states with similar dog warden-type animal control systems

State laws. Stakeholder opinions varied regarding the dearth of laws applying to cats in the ORC. Those who favored changing state laws desired adoption of more uniform approaches to managing community cats, in addition to restrictions on owned cats being allowed to roam outdoors. Participants who opposed amending the ORC believed that existing state laws were not an impediment to managing cats via non-lethal means and cautioned that potential changes might hurt—in part, via potentially increased feline euthanasia rates at shelters—rather than help, such efforts. Participants opposed to adding specific provisions for cats to the ORC appear to make a valid argument, as existing local laws and ordinances applied to cats (discussed in the next section) seem to have the effect of limiting rather than broadening available management options.

Local laws and ordinances. Although cited as an impediment by a minority of interviewees, the existence of local laws that effectively prohibit the feeding and/or releasing of unowned cats after sterilization appeared to be the most substantial obstacle faced by private animal welfare organizations in the establishment of collaborative relationships for the purpose of non-lethal management of unowned cats. Local laws mentioned included at-large animal ordinances (leash laws), abandonment provisions, and feeding bans. These types of laws are

often vague and open to broad interpretation allowing them to be applied, at least potentially, to community cats (Gorman & Levy, 2004). Consistent with the findings of Kortis (2007), study participants indicated that such ordinances have been enacted in only a small number of communities; however, when present, such laws were often considered to be a major hurdle. Affected participants indicated that these types of ordinances limited their ability to work with government entities and other private animal welfare organizations. Most interviewees representing private animal welfare organizations expressed negative perceptions about such ordinances irrespective of whether they had been encountered directly.

Multiple stakeholders reported that local laws have caused them to postpone or forego pursuit of otherwise possible joint initiatives. Moreover, a number of interviewees representing private stakeholder organizations reported efforts to work around these types of local laws—sometimes in collaboration with other private groups—while simultaneously striving to have such ordinances rescinded or amended to allow for TNR. It appears, not unlike the multitude of individuals who have, in effect, breached local prohibitions by continuing to act as caregivers for outdoor cats (Anderson, 2007), some organizational stakeholders indicated that at times they have felt forced into potential instances of non-compliance with local ordinances in order to practice TNR.

Based upon this evidence, two presumably unintended consequences of at-large animal laws, abandonment provisions, and feeding bans seem to come to light: First, it appears that such ordinances, where in place, have inhibited the creation of collaborative public-private non-lethal management programs. Second, it seems that such laws have caused attempted joint efforts between private organizations to be conducted in a more stealth manner, likely restricting their scope and/or effectiveness. Consequently, because significant opportunities to sterilize unowned

cats appear to have been lost as a result of such laws, it may be reasonable to conclude that these types of local measures have been counter-productive to accomplishment of the overarching goal of fewer community cats.

Concerns about cats living outdoors. Rather unexpectedly, concern over the impact of unowned cats on wildlife populations, a focus of the wider debate between some conservation interests and TNR advocates described in the introduction section of this paper, was expressed by only one interviewed stakeholder—a dog warden. A greater amount of commentary was offered about another often contentious issue: the quality of life experienced by community cats. All but two interviewees expressing opinions believed that cats normally lead good lives outdoors--some cited anecdotal evidence to support this view, while others referenced existing research. Most were in agreement with public sentiment that it is better for community cats to live potentially shorter lives outdoors than for healthy animals to be trapped and euthanized in shelters (Hurley, 2013; Chu & Anderson, 2007). Nonetheless, illustrative of the complexity associated with this issue, HS-5—who recalled the day a personal decision was made to take up the cause of unowned cats, despite being advised by others that it would be “too f***ing hard”—has come to the reluctant conclusion that humane euthanasia of community cats is often the best option.

Consistent with the findings of Centonze and Levy (2002), ongoing post-release care--as is often provided by volunteer caregivers--was depicted as a vital component of TNR programs by multiple stake holders, including several who believed that cats regularly enjoy a satisfactory quality of life outdoors. A perceived lack of emphasis on continuing care was cited as a source of major concern by one of the two interviewees unconvinced that outdoor cats experience a good quality of life. Considering that the need for adequate post-TNR care was accentuated by

multiple interviewees, including several who endorsed non-lethal methods of community cat management, it may be prudent for TNR proponents to place greater emphasis and/or increased educational focus on post-release caregiving moving forward in order to assuage quality of life concerns. Although conversely, such apprehensions, particularly as promulgated by PETA, were resoundingly rejected by a number of participants representing humane societies/shelters.

Funding. Funding was perceived as a major consideration by the vast majority of interviewed stakeholders. Other than as part of the two previously referenced public-private collaborative TNR programs (PMC-1 and PMC-2), no private animal welfare group representatives reported receiving government funding for the management of unowned cats. This was consistent with the findings of Weiss et al. (2013), who observed that the care and control of all relinquished, abandoned, and other ownerless cats falls exclusively upon non-profit organizations in the state of Ohio. These findings also support the call for government involvement—“funding and/or services”—in the management of unowned cats made by Lord (2008). Due to the absence of government funding, it is no surprise that private grants were the most frequently cited source of revenue used to manage unowned cats. Interestingly, some stakeholders perceived the grant application process to be unfair, while others cited local laws which prevent TNR as impediments to receiving grant money. Funding procurement for the purpose of managing community cats was cited as an obstacle by interviewees representing both public and private organizations.

Relationship dynamics. Multiple interviewees perceived various relationship dynamics between stakeholder groups—competition, conflicting agendas, resistance to change, and even mistrust—as obstacles to collaboration in the non-lethal management of unowned cats. It was not unexpected to find that several participants reported resistance to change as an impediment to

the implementation of new community cat management strategies, as such resistance might be anticipated anytime new ideas are presented. Less expected was the discovery that factors such as competition between stakeholder agencies, competing organizational agendas, and mistrust were described as obstacles to collaboration by a number of interviewees. Although such individual perceptions were not widespread, further research into the dynamics of stakeholder relationships may be warranted, as a closer examination was beyond the scope of this study.

Chapter 6: Recommendations and Conclusion

Recommendations

Several revealed themes and elemental factors that meaningfully influence public-private collaborative efforts to manage unowned cats via non-lethal methods in the state of Ohio have been discussed. This study has resulted in the discovery of two significant attitudinal patterns among interviewed stakeholders: a universal willingness to collaborate and a wide-spread preference for non-lethal methods of unowned cat management. In combination, these two findings seem to indicate significant potential within Ohio for expansion of joint programs utilizing approaches such as TNR. To fully capitalize on such opportunity, it would seem that collaboration among Ohio's community cat stakeholders must be encouraged and facilitated.

Encouragement and facilitation of collaborative efforts. Collaboration might be best promoted through the mitigation of uncovered impediments, such as burdensome local laws and ordinances which effectively prohibit the releasing of cats after sterilization, funding concerns, competitive sticking points between stakeholder entities, and apprehensions about cats living outdoors.

As was suggested by multiple interviewees, amending local at-large animal ordinances (leash laws), abandonment provisions, and feeding bans to allow for TNR would clear the way for cultivation of under-leveraged collaborative stakeholder relationships. Such amendments would specifically legalize the releasing of cats after sterilization as well as their ongoing care. As a result, collaborative programs utilizing strategies such as TNR and targeted TNR--with the potential to spay and neuter countless cats--could be performed with impunity, while leaving in place local restrictions more appropriately applied to pets or wild animals (unowned cats can be

definitively categorized as neither). As noted by one study participant representing a humane society/shelter, “I don’t think those ordinances [leash laws, abandonment provisions, and feeding bans] apply to feral, stray, or free-roaming cats...it doesn’t fit. The ordinances don’t fit the types of conditions these cats are living in. We are trying to apply an ordinance to a group of animals that doesn’t fit.” Amending these types of local laws to allow for TNR appears to be a practical solution that would help to maximize collaborative opportunities for both public and private organizations, while enhancing the potential scope and effectiveness of non-lethal management options.

Ironically, it seems that at least some funding challenges encountered when collaborative non-lethal community cat management programs are being considered could be ameliorated through acts of collaboration. PMC-2 is a case in point, whereby a municipality secured grant funding for a public-private collaborative TNR program; funding that the participating humane society/shelter likely would not have been able to obtain on its own. The collaborative TNR program described as PMC-1 featured funding from both public and private sources; a combination of funding mechanisms likely worth wider exploration. Public-private collaboration in the securing of grant funding for the non-lethal management of community cats—from either local or national grantors--seems to hold much potential. Additionally, as suggested by multiple interviewees representing humane societies/shelters, municipalities with animal control budgets ought to consider diverting capital currently used for trap and euthanize efforts to TNR programs. Moreover, the sharing of paid staff, volunteers, and/or facilities, when appropriate, may help stakeholder organizations to remedy possible budget shortfalls.

As pointed out by HS-10 and described in the existing literature, mitigation of issues concerning organizational dynamics likely requires stakeholder focus on the shared “endgame”

of fewer community cats. According to HS-4, non-lethal community cat management programs, like TNR, provide a narrowness of purpose which allows groups that might otherwise disagree to work together. Establishment of such relationships can be “extremely productive” (Slater & Shain, 2005) likely making attempts by stakeholders to work past philosophical differences in order to collaborate on non-lethal community cat management programs worth the effort.

A re-doubling of efforts to educate all concerned about the satisfactory level of health experienced by unowned cats living as part of managed colonies, in addition to the importance of post-release caregiving to the TNR process, may be necessary to alleviate apprehensions about cats living outdoors. Familiarity with the existing literature, as reviewed as part of this paper, concerning the impact of unowned cats on wildlife populations is also recommended.

Moreover, creation of a mechanism designed to match public and/or private community cat stakeholder entities based upon organizational as well as community needs and resources is a potential way in which facilitation of collaborative efforts could be achieved. Perhaps, a web-based service could be explored; one which would be free and available to all interested parties (see Appendix C, Next Steps--Ohio Community Cat Collaborative Clearinghouse website).

Additional recommendations. This study produced another important finding: a need for greater access to low-cost spay-neuter services. It appears that additional low-cost spay-neuter clinics, whether brick and mortar facilities or mobile units, are needed in many Ohio communities before non-lethal management of unowned cats can be carried out in impactful ways. The public support discovered by Lord (2008) for Ohio policymakers to establish low-cost spay-neuter programs should be re-explored. Moreover, despite the skepticism expressed by a number of stakeholders concerning the appropriateness of fees charged for spay-neuter surgeries

by private veterinarians, perhaps enlistment of local vets willing to perform surgeries for community cats at reduced costs may be an option in some underserved areas.

Several notions proffered by interviewed stakeholders seem to offer particular promise. First, as suggested by HS-10 and HS-3, targeted TNR could be packaged as part of a comprehensive, all-encompassing spay-neuter campaign in which feral, stray, and owned cats are sterilized in targeted areas. This type of approach would acknowledge the interrelationship between animal-related programs within a community as pointed out by Slater and Shain (2005), as well address present and future sources of unowned cats. Second, as recommended by HS-4, a program such as this might potentially be operated from a low-cost spay-neuter clinic, where participants could be trained and program results tracked and analyzed. Third, as intimated by several interviewees, a team of trappers—paid or volunteer--could be assembled to perform the “T” component of T-N-R. Trappers might be enlisted and trained as part of either reactive TNR programs focused on responding to resident complaints, or proactive targeted campaigns designed to reduce community cat populations in specified territories. Trappers might serve single communities or counties, or perhaps larger areas, depending on program activity levels. Unlike colony caretakers, who likely prefer to reside in close proximity to the cats in their care, trappers perhaps consider such logistical considerations less relevant due to the ephemeral nature of their duties.

Conclusion

It seems that tremendous opportunity for collaboration among Ohio community cat stakeholders exists and that non-lethal management of unowned cats is widely preferred over lethal measures. These discoveries are compelling, not only because of their myriad implications

for the management of community cats within Ohio, but because it seems that this study was the first opportunity stakeholders in the state have had to express perceptions and opinions of this kind in such a context. Many interviewed stakeholders clearly yearned to express their thoughts and views about Ohio's community cats as well as efforts to manage them via collaboration.

Much apparent corroboration of what has been proffered in the existing literature was uncovered, as well; perhaps most importantly, the need for improved access to low-cost spay-neuter surgeries in many Ohio communities. Stakeholder frustrations over this deficiency, along with vexation over the perceived stifling effects of local laws and ordinances on the initiation and/or expansion of TNR programs, were palpable. Mitigation of hindrances, such as those described above, will likely need to be an essential part of collaborative community cat management strategies moving forward.

The story told by Ohio community cat stakeholders via the sorted and summarized interview data disclosed above should be empathetically considered by those attempting to direct future applicable management strategies within the state. Transferability of results to other states may be limited, not only by the descriptive nature of this study, but because of the atypicality of Ohio's dog warden system. As proffered by Strauss and Corbin (1994), predictability of theory generated through grounded theory methodology is possible inasmuch as specific conditions related to revealed consequences are approximated elsewhere—this may allow for possible predictability of theory only when applied to analogous contexts unaffected by dissimilarities in conditions, such as state-mandated animal control systems.

Notwithstanding noted constraints related to generalizability of results, two stakeholder objectives which emerged from this investigation likely transcend all boundaries separating those

with an interest in community cats: a meaningful reduction in the number of felines living outdoors and achievement of a time when unowned cats are no longer aptly described as “nobody’s baby.”

References

- Alley Cat Allies. (2011). Humans: The number one threat to wildlife (Fact Sheet). Retrieved from <http://www.alleycat.org/Page.aspx?pid=642>
- Alley Cat Allies. (2013a). Frequently asked questions. Retrieved from <http://www.alleycat.org/page.aspx?pid=924>
- Alley Cat Allies. (2013b). Why trap-neuter-return feral cats: The case for TNR. Retrieved from <http://www.alleycat.org/page.aspx?pid=1013>
- Alley Cat Allies. (2014a). The natural history of the cat. Retrieved from <http://www.alleycat.org/Page.aspx?pid=1010>
- Alley Cat Allies. (2014b). Setting the record straight. Retrieved from <http://www.alleycat.org/page.aspx?pid=1028>
- Alley Cat Allies. (2014c). Feral cats and the public: A healthy relationship. Retrieved from <http://www.alleycat.org/feralcathealth>
- Alley Cat Allies. (2014d). Cat fatalities. Retrieved from <http://www.alleycat.org/page.aspx?pid=395>
- Alley Cat Allies. (2014e). History of Alley Cat Allies. Retrieved from <http://www.alleycat.org/page.aspx?pid=252>
- American Association of Feline Practitioners. (2014). Feral cats position statement. Retrieved from <http://www.catvets.com/guidelines/position-statements/feral-cats>
- American Animal Hospital Association. (2014). 2004 AAHP position statement on free-roaming, abandoned and feral cats. Retrieved from <http://www.catvets.com/guidelines/position-statements/free-roaming-abandoned-and-feral-cats>
- American Pet Products Association. (2015). Pet industry market size & ownership statistics. Retrieved from http://americanpetproducts.org/press_industrytrends.asp
- American Society for the Prevention of Cruelty to Animals. (2014a). Cat history. Retrieved from <http://www.asPCA.org/pet-care/cat-care/cat-history>
- American Society for the Prevention of Cruelty to Animals. (2014b). Position statement on feral cat management. Retrieved from <https://www.asPCA.org/about-us/asPCA-policy-and-position-statements/position-statement-on-feral-cat-management>
- American Veterinary Medical Association. (2013). U.S. pet ownership statistics. *2012 U.S. Pet Ownership & Demographics Sourcebook*, May 22, 2014.
- American Veterinary Medical Association. (2014). Free-roaming abandoned and feral cats. Retrieved from <https://www.avma.org/KB/Policies/Pages/Free-roaming-Abandoned-and-Feral-Cats.aspx>

- Anderson, W. M. (2007, Spring). Who speaks for the animals? *Animal Law Committee Newsletter*. Retrieved from file:///C:/Users/Owner/Downloads/SSRN-id2101227.pdf
- Anderson, W. M., & Vaniotis, A. E. (2008, Spring). Animals v. animals: A false choice. *Animal Law Committee Newsletter*. Retrieved from https://www.animallaw.info/sites/default/files/arusabanewsletter2008anderson_animals_animals.pdf
- Association of Shelter Veterinarians. (2010). Free roaming community cat management. Retrieved from <http://www.sheltervet.org/wp-content/uploads/2012/11/FeralCommunityCatMgmt.pdf>
- Boks, E. (n.d.). Analysis of Feral/Stray cat solutions. Retrieved from http://www.edboks.com/uploads/Analysis_of_Feral_Cat_Solutions.pdf
- Bradshaw, J. (2013). *Cat sense: How the new feline science can make you a better friend to your pet*. New York: Basic Books.
- Burgess-Jackson, K. (1998). Doing right by our companion animals. *The Journal of Ethics*, 2(2), 159-185.
- Centonze, L. A., & Levy, J. K. (2002). Characteristics of free-roaming cats and their caretakers. *Journal of the American Veterinary Medical Association*, 220(11), 1627-1633.
- Chu, K., & Anderson, W. M. (2007). *U.S. public opinion on humane treatment of stray cats*. Bethesda, MD: Alley Cat Allies.
- Cornell Feline Health Center. (2014). Toxoplasmosis in cats. Retrieved from <http://blog.humanesociety.org/wayne/2013/01/cats-wildlife-hsus-perspective.html>
- Cowan, P., & Warburton, B. (2011). Animal welfare and ethical issues in island pest eradication. In: C.R. Veitch, M.N. Clout and D.R. Towns (eds.). *Island invasives: eradication and management* Occasional Paper of the IUCN Species Survival Commission No. 42), 418-421.
- D'Angelo, D., & Farnsworth, D. (2010). *The feral cat population (abridged)*, Blankfein, R. (ed.). Latham, NY: Humane Society of the Capital Region.
- Dauphine, N., & Cooper, R. J. (2009). Impacts of free-ranging domestic cats (*felis catus*) on birds in the United States: A review of recent research with conservation and management recommendations. *Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics*, In: T.D. Rich, C. Arizmendi, D.W. Desmarest and C. Thompson (eds.) 205-219.
- Denscombe, M. (1998). Interviews. *The good research guide: For small-scale research projects* (Keynes, M. ed., pp. 109-137) Open University Press.
- Dyer, J. L., Wallace, R., Orciari, L., Hightower, D., Yager, P., & Blanton, J. D. (2013). Rabies surveillance in the United States during 2012. *Journal of the American Veterinary Medical Association*, 243(6), 805-815.
- Fischer, R., & Ury, W. (1991). In Patton B. (Ed.), *Getting to yes: Negotiating agreement without giving in* (2nd ed.). New York: Penguin Books.

- Ford-Thompson, A., Snell, C., Saunders, G., & White, P. (2012). Stakeholder participation in management of invasive vertebrates. *Conservation Biology*, 26(2), 345-356. Doi:10.1111/j.1523-1739.2011.01819.x
- Gorman, S., & Levy, J. (2004). A public policy toward the management of feral cats. *Pierce Law Review*, 2(2), 157-181.
- Hadidian, J., Gibson, I., Hagood, S., Peterson, N., Unti, B., & McFarland, B.,...Rowan, A. (2012). Outdoor cats: An animal welfare and protection perspective. 25th *Vertebrate Pest Conference*, 95-99.
- Hadidian, J., & Weitzman, G. (2014, April 19). Feral cats: Neutering best solution. *San Diego Union Tribune* Retrieved from <http://www.utsandiego.com/news/2014/Apr/19/feral-cats-birds-neutering-program-best-solution/2/>
- Hettinger, J. (2013). Putting it into practice: A new way in San Jose helps cut cat intake, euthanasia. *Animal Sheltering Magazine*, , 29-30.
- Humane Society of the United States. (2012). *The outdoor cat: Science and policy from a global perspective*. (White Paper). Marina del Ray, CA: Humane Society of the United States.
- Humane Society of the United States. (September 4, 2013). The HSUS's position on cats. Retrieved from http://www.humanesociety.org/animals/cats/facts/cat_statement.html
- Humane Society of the United States. (2014a). *Managing community cats: A guide for municipal leaders*. (Guide for International City/County Management Association (ICMA) members). Washington, DC: Humane Society of the United States.
- Humane Society of the United States. (2014b). Where to find help for community cats. Retrieved from <http://www.humanesociety.org/assets/maps/feral-cats.html>
- Humane Society of the United States, (2014c). *Pets for Life: An In-Depth Community Understanding*. Retrieved from <http://www.humanesociety.org/assets/pdfs/pets/pets-for-life/pfl-report-0214.pdf>
- Hurley, K. (2013, Sep/Oct). For community cats, A change is gonna come. *Animal Sheltering Magazine*, 24-28.
- Jessup, D. A. (2004). The welfare of feral cats and wildlife. *Journal of the American Veterinary Medical Association*, 225(9), 1377-1383.
- Kortis, B. (2007). *Implementing a community trap-neuter-return program*. Washington DC: Humane Society of the United States.
- Kortis, B. (2014). *Community TNR: Tactics and tools*. Phoenix: PetSmart Charities.
- Leedy, P. D., & Ormrod, J. E. (2013). *Practical research: Planning and design* (10th ed.). Boston: Pearson Education, Inc.
- Levy, J. K. (2011). Contraceptive vaccines for the humane control of community cat populations. *American Journal of Immunology*, 63-70. doi: 10.1111/j.1600-0897.2011.01005.x

- Levy, J. K., (2012). Managing cat colonies. Paper presented at *The Outdoor Cat: Science and Policy from a Global Perspective*, Los Angeles. Retrieved from <http://www.humanesociety.org/news/publications/whitepapers/presentations-outdoor-cat-conference.html>
- Levy, J. K., & Crawford, P. C. (2004). Humane strategies for controlling feral cat populations. *Journal of the American Veterinary Medical Association*, 225(9), 1354-1360.
- Levy, J. K., Gale, D. W., & 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(1), 42-46.
- Levy, J., & Hurley, K. (2014). New paradigms for shelters and community cats. Retrieved from <https://vetmed-maddie.sites.medinfo.ufl.edu/files/2014/07/New-Paradigms-for-Shelters-and-Community-Cats.pdf>
- Levy, J. K., Isaza, N. M., & 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*, doi:10.1016/j.tvjl.2014.05.001
- Logan County. (n.d.). Dog Warden. Retrieved from <http://www.co.logan.oh.us/375/Dog-Warden>
- Longcore, T., Rich, C., & Sullivan, L. M. (2009). Critical assessment of claims regarding management of feral cats by trap-neuter-return. *Conservation Biology*, 23(4), 887-894.
- Lord, L. K. (2008). Attitudes toward and perceptions of free-roaming cats among individuals in Ohio. *Journal of the American Veterinary Medical Association*, 232(8), 1159-1167.
- Loss, S. R., Will, T., & Marra, P. P. (2013). The impact of free-ranging domestic cats on wildlife of the United States. *Nature Communications*, 4(1396), 1-7. Doi: 10.1038/ncomms2380
- Loyd, K., & Hernandez, S. (2012). Public perceptions of domestic cats and preferences for feral cat management in the southeastern United States. *Anthrozoos*, 25(3), 337-351.
- Mordini, K. (February 4, 2013). Cats versus bird study: Groups speak out on Smithsonian study. *Examiner.Com*, July 11, 2013.
- Neuman, W. L. (2011). *Social research methods: Qualitative and quantitative approaches* (7th ed.). Boston: Allyn and Bacon.
- Ohio Department of Health. (2015). *Rabies in Ohio, 2013*. (Annual Ohio Animal Rabies Report). Retrieved from <http://www.odh.ohio.gov/~media/ODH/ASSETS/Files/bid/zdp/Diseases/rabies/rabreport.ashx>
- Ohio Revised Code (2015a). Chapter 959: Offenses related to domestic animals. U.S.C. 959.131, Prohibitions concerning companion animals (amended 9/29/2013). Retrieved from <http://codes.ohio.gov/orc/959.131>

- Ohio Revised Code (2015b). Chapter 955: Dogs. U.S.C. 955.12, Dog wardens (amended 9/29/2013). Retrieved from <http://codes.ohio.gov/orc/955.12>
- Ohio State University. (April 16, 2008). Community-based approach best bet to control free-roaming cats, survey suggests. *Science Daily*, March 19, 2014.
- O'Leary, Z. (2004). Indicators of good research. *The essential guide to doing research* (pp. 56-65). London: Sage Publications, Inc.
- Pacelle, W. (2013, January 30). Cats and wildlife: An HSUS perspective. Retrieved from <http://blog.humanesociety.org/wayne/2013/01/cats-wildlife-hsus-perspective.html>
- Pacelle, W. (2014, April 23). Creating safer communities for cats and wildlife. Retrieved from <http://blog.humanesociety.org/wayne/2014/04/cats-and-wildlife.html>
- Palmer, C. (2003). Placing animals in urban environmental ethics. *Journal of Social Philosophy*, 34(1), 64-78.
- Patronek, G. J., & Rowan, A. N. (1995). Determining dog and cat numbers and population dynamics. *Anthrozoos*, 8(4), 199-205.
- Peterson, M. N., Hartis, B., Rodriguez, S., Green, M., & Lepczyk, C. A. (2012). Opinions from the front lines of cat colony management conflict. *Plos One*, 7(9), 1-7.
- Peterson, N. (2013, Jan/Feb). Yes, in our backyard. *Animal Sheltering Magazine*, 32-34.
- Rivard, N. (2014). 10 lives: An inspiring story about humane feral cat management. Retrieved from <http://friendsofanimals.org/magazine/spring-2014/10-lives-inspiring-story-about-humane-feral-cat-management#>
- Robertson, S. A. (2008). A review of feral cat control. *Journal of Feline Medicine & Surgery*, 10(4), 366-375.
- Rowan, A. N. (2013). Cat demographic analyses in the USA. *SAWA Conference on Cats*, Tempe, AZ.
- Scott, K. C., Levy, J. K., Gorman, S. P., & Newell, S. M. (2002). Body condition of feral cats and the effect of neutering. *Journal of Applied Animal Welfare Science*, 5(3), 203-213.
- Scott, K. C., Levy, J. K., & Crawford, P. C. (2002). Characteristics of free-roaming cats evaluated in a trap-neuter-return program. *Journal of the American Veterinary Medical Association*, 221(8), 1136-1138.
- Seigle, D. (2002). Principles and methods in educational research: Qualitative research. Retrieved from <http://www.gifted.uconn.edu/siegle/research/Qualitative/qualitativeInstructorNotes.html>
- Serpell, J. (2000). Domestication and history of the cat. In D. C. Turner, & P. Bateson (Eds.), *The domestic cat: The biology of its behaviour* (2nd ed., pp. 179-192). Cambridge: Cambridge University.

- Sims, V., Evans, K. L., Newson, S. E., Tratalos, J. A., & Gaston, K. J. (2008). Avian assemblage structure and domestic cat densities in urban environments. *Diversity and Distributions*, *14*(2), 387-399.
- Slater, M. R. (2002). *Community approaches to feral cats*. Washington DC: Humane Society Press.
- Slater, M. R., & Shain, S. (2005). Feral cats: An overview. In D. J. Salem, & A. N. Rowan (Eds.), *The state of animals* (III ed., pp. 43-53). Washington, DC: Humane Society Press.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 273-285). Thousand Oaks, CA: Sage.
- U.S. Census Bureau. (2014). State & county quick facts: Ohio. Retrieved from <http://quickfacts.census.gov/qfd/states/39000.html>
- U.S. Census Bureau. (n.d.). The largest U.S. cities: Cities ranked 1 to 100. Retrieved from http://www.citymayors.com/gratis/uscities_100.html
- US-Places.com. (2012). Ohio population by county-total residents. Retrieved from <http://www.us-places.com/Ohio/population-by-County.htm>
- Wald, D. M., & Jacobson, S. K. (2014). A multivariate model of stakeholder preference for lethal cat management. *Plos One*, *9*(4), 1-9.
- Wald, D. M., Jacobson, S. K., & Levy, J. K. (2013). Outdoor cats: Identifying differences between stakeholder beliefs, perceived impacts, risk and management. *Biological Conservation*, *167*, 414-424.
- Weiss, E., Patronek, G., Slater, M., Garrison, L., & Medicus, K. (2013). Community partnering as a tool for improving live release rate in animal shelters in the United States. *Journal of Applied Animal Welfare Science*, doi:10.1080/10888705.2013.803816
- Wittum, T. E., & Lord, L. K. (2004). *2004 survey of animal control Agencies including County dog warden agencies, Humane societies, Municipal animal control agencies*. Columbus, OH: The Ohio State University College of Veterinary Medicine.
- Wolf, P. J. (2015). Humane Thinking: New survey reveals widespread support for trap-neuter-return. Retrieved from <http://spot.humaneresearch.org/content/new-survey-reveals-widespread-support-trap-neuter-return>

Appendix A: Sample Preliminary Survey Questionnaire and Cited Data

Name of organization_____

Contact name_____

Contact phone_____ Contact email_____

1. Does your agency handle feral cats? YES NO (Please circle answer)

If no, do you refer calls about feral cats to another agency/group? YES NO

Please provide the name of the agency/rescue group_____

*****If your agency does not handle feral cats, please skip to question #8*****

2. Does your agency trap feral cats? YES NO

If yes, are they trapped as part of an ongoing feral cat management program, or simply in response to resident complaints? (Please provide brief explanation)

3. What happens to the feral cats that your agency handles?

4. Do you have staff dedicated to the management of feral cats? YES NO

If yes, how many staff? (Please feel free to elaborate on staff duties)_____

5. Are your agency's practices regarding feral cats mandated by formal policy (e. g., local ordinance), or determined by agency management/staff?
6. Does your agency partner with local animal rescue groups or residents who practice trap-neuter-return (TNR)? YES NO

If yes, with whom does your agency partner?

7. Does your organization conduct any public outreach campaigns regarding TNR or feral cat management? YES NO

If yes, what type(s) of campaigns?

8. Does your agency function as an official county or municipal animal control agency?
YES NO

If no, what is the name of the organization that performs animal control in your area (county/city)? _____

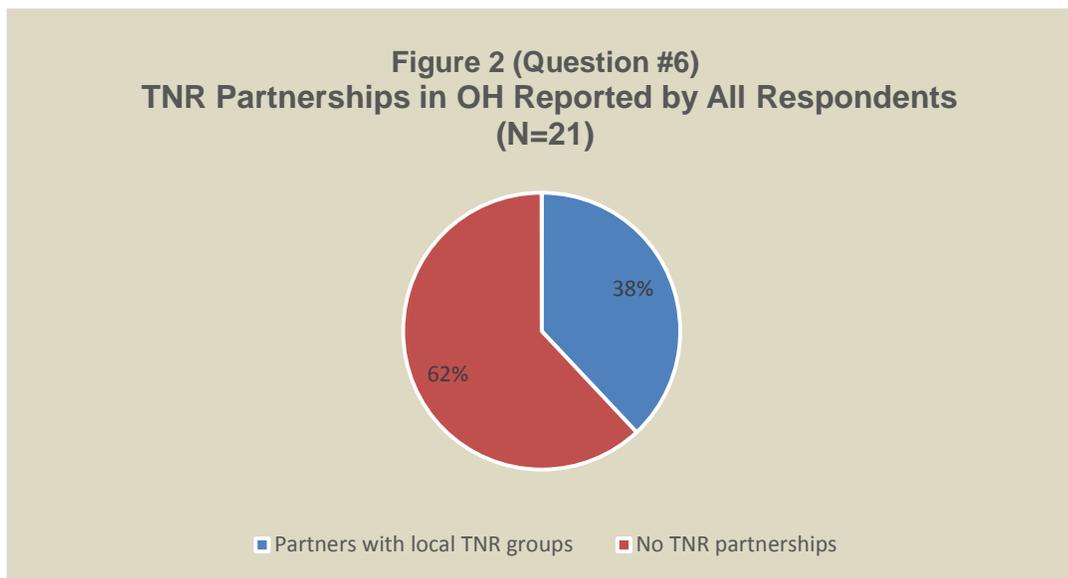
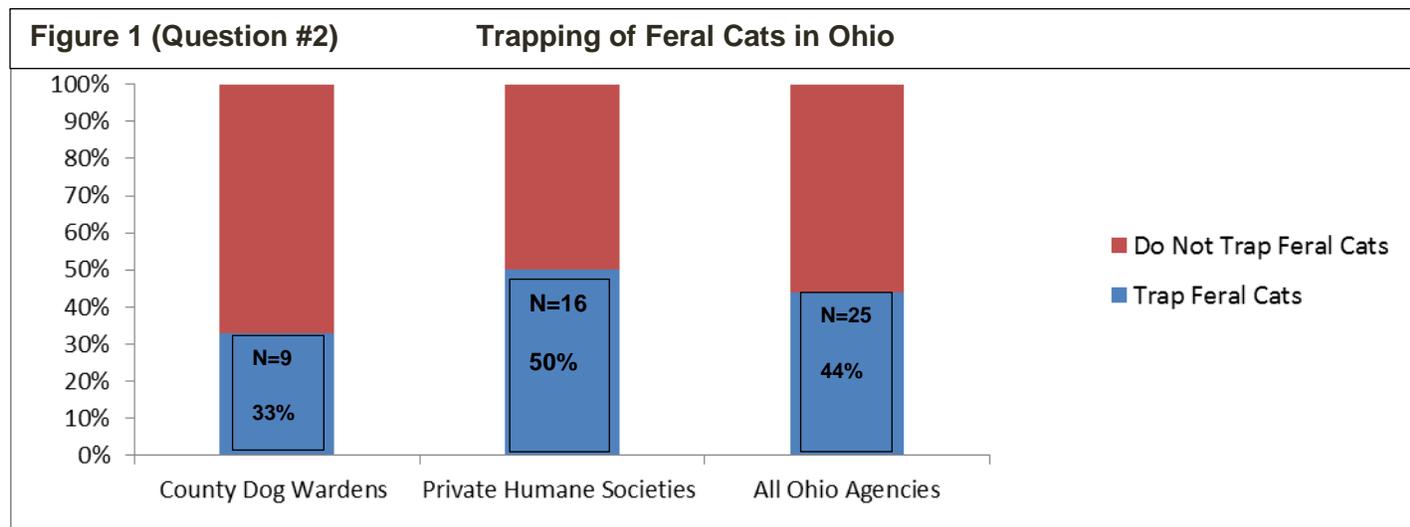
Do they handle feral cats? YES NO

9. Would you be willing to participate in a brief follow-up interview if additional information is needed? YES NO

End of survey. Thank you so much for your participation! Please return the completed questionnaire in the enclosed postage-paid envelope. If you prefer, you may respond to the survey via email: **ohioferalcatsurvey@sbcglobal.net**, or report your survey answers by telephone voicemail: **216-688-6549** (please answer all applicable questions). Questions and/or inquiries about this survey may be made by either email or telephone.

Cited Data

Table 1 (Question #1)	Handle Feral Cats	Do Not Handle Feral Cats	Do Not Handle, But Refer Calls
Handling of Feral Cats in Ohio			
County Dog Wardens (N=42)	0%	100%	62%
Private Humane Societies (N=21)	57%	43%	44%
All Ohio Agencies (N=63)	19%	81%	59%



Appendix B: Sample Study Interview Questions

Date/Time _____

Name/Title of Interviewee _____

Organization _____

Tell me about your organization/agency? _____

How long have you been in your current position? _____

Previous position _____

If applicable: In response to a previous survey you indicated that your agency does/does not handle feral/unowned cats, is that still the case? Why? If different, what/why?

Is community cat population management a concern in your area? _____

Why/How? Who is responsible for managing?

Does your agency refer calls about unowned cats to another organization (public or private)?

What organization and why? _____

Does your organization collaborate with any other organizations in the handling of unowned cats? Why or why not? _____

If your organization had the opportunity to work with another public/private agency (or to expand current efforts) would that be something worth pursuing? Why or why not? _____

Does your organization have paid or volunteer staffing that handles or could handle community cats? _____

Are staffing concerns an impediment to implementing a feral/unowned cat management program? Would collaboration be a potential solution to this problem?

Do you believe that non-lethal methods of unowned cat management can be effective? Why? _____

Are you familiar with Trap-Neuter-Return (TNR)? What are your perceptions about TNR? _____

Has your organization utilized TNR in the past? _____

Are you familiar with targeted TNR? What are your impressions?

Are you familiar with Return to Field (SNR/Feral Freedom) programs? What are your impressions? _____

Does your public agency support any private humane societies in managing unowned cats? _____

OR

Does your private organization support any public agencies in the management of unowned cats?

What factors make such collaboration possible

What factors, if any, stand in the way of such collaboration? _____

What types of collaboration would you like to see take place?_____

What are your thoughts concerning laws and/or mandates (or lack thereof) in Ohio concerning unowned cats?_____

Are there any relationships that your organization currently has that you would like to see expanded?_____

Have you heard of any programs that have had success elsewhere that you would like to try? Why?_____

Do you think such a program(s) would be possible in your area? Why or Why not?

What programs/methods has your organization/community attempted to date? Non-lethal methods, trap & euthanize, feeding bans, local laws (at-large, pet limits, licensing), something else—or no management?

What are your sources of funding?_____

Do you know of potential grants available for the management of unowned cats?_____

Has your organization ever applied for or received grant money? From what entity?_____

- Approximately what percentage of feline shelter intake is made up of unowned cats?
- Would lowering that number be beneficial to your organization?

Does your organization euthanize animals? Approximately, what percentages are cats/unowned cats?

Would reducing that number be beneficial to your organization? _____

Is there anything that you would like to add? _____

Would you like to receive a copy of study results? (Y/N)

Thank you for your participation.

Appendix C: Next Steps and Matching Needs and Resources Worksheet

The results of this study suggest a great willingness on the part of Ohio stakeholders to collaborate on the non-lethal management of community cats. Additionally, prior research has indicated that Ohioans, in general, have a strong preference for non-lethal control of unowned cats (Lord, 2008). It is relevant to note that nationally only 2% of unowned cats are thought to be sterilized, as opposed to over 80% of owned cats (*HSUS, 2014*); no data exists indicating that the situation in Ohio is different. Consequently, the bad news appears to be that many more unowned cats need to be reached in order for non-lethal management strategies like TNR to be effective on a broad scale. The good news is that an environment conducive to employing collaborative initiatives in order to spay and neuter more of Ohio's community cats seems to exist—it appears as though it simply needs to be better leveraged.

Capitalizing on the revealed preference for non-lethal methods of community cat management and the widespread willingness among stakeholders in Ohio to collaborate will be crucial to expanding the scope and effectiveness of strategies like TNR moving forward. With that goal in mind, taking into account knowledge garnered from this study, past research, and personal experience, I offer the following observations and suggestions:

- **Opportunities for collaboration oftentimes need to be better recognized and exploited. This would make the implementation and execution of TNR programs easier at both the grassroots and community-wide levels.**
 - Opportunities for collaboration may exist despite not having been identified.
When considering implementation of TNR programs, organizational leaders should take stock of available resources as well as determine potential

deficiencies and compare that information to correspondent data and/or assumptions for potential collaborators. Wherever alignment of needs and resources between organizations exists, opportunity for collaboration should be explored. A worksheet that may be of assistance in this process has been provided (Tables 3A and 3B below).

- Pooling of resources and delegation of responsibilities between partnering organizations has the potential to make the implementation of TNR programs more manageable and easily integrated into the existing range of duties of each entity.
- Frequently, an inordinate amount of the workload and expense associated with TNR activities in a given community are left to be handled by a single, perhaps already over-stretched non-profit organization, or possibly to be assumed by only a few dedicated individuals—such situations can lead to inconsistent program implementation and limited effectiveness in reducing total community cat populations. Additionally, the prospect of taking on an inequitable share of program costs and responsibilities may discourage those otherwise willing from implementing their own TNR efforts. Collaboration offers a solution to these problems by spreading the required commitments of time, manpower, and funding between two or more organizations; public willingness to participate—which at times goes untapped-- should be taken full advantage of, as well. Collaboration of any kind may result in greater opportunities to receive private grants, while joint public-private efforts often further enhance such possibilities and offer the potential for public funding.

- Collaboration may allow for more practicable allocation of responsibilities. The staffs and volunteers of multiple organizations can be assigned various roles integral to the TNR process. Groups of trappers, transporters, caregivers, and individuals willing to foster potentially adoptable cats and kittens can be trained and asked to perform manageable tasks, rather than overburdening perhaps a small number of dedicated individuals. Trained TNR teams might be assigned to respond to resident complaints or proactively target particular areas. Asking volunteers to perform specific jobs for manageable amounts of time may encourage public participation, which in turn lessens the workload for all concerned.
- **Barriers such as local laws and ordinances applied to community cats should be removed or revised to allow for TNR.**
 - As described in the discussion section of this paper, local at-large animal laws, abandonment provisions and feeding bans often discourage non-lethal management programs and seem to run counter to the goal of reducing community cat populations.
 - Public officials need to be made aware of the ramifications of enacting such laws and encouraged to refrain from doing so, or urged to amend existing laws to allow for TNR.
- **Greater access to low-cost spay-neuter surgeries needs to be created.**
 - Establishment of more low-cost spay-neuter clinics, particularly in underserved communities, would increase the rate of sterilization for both owned and unowned cats--helping to put an end to the virtually unchecked proliferation of felines

currently living outdoors and reducing the number of unaltered pet cats at greatest risk for future abandonment. Whereas, as noted above, over 80% of all pet cats in the United States are thought to be spayed or neutered, only about 13% of pets (including cats) living in households in underserved neighborhoods are sterilized (HSUS, 2014c).

- Notwithstanding the considerable skepticism expressed by interviewed stakeholders regarding the willingness and/or ability of private veterinarians to provide affordable spay-neuter surgeries for TNR, it may be worth attempting to enlist local veterinary practices to provide sterilization services at reduced rates for community cats. One potential strategy might be to recruit a small group of veterinarians within a community to share such duties—possibly divided among group members by days of the week. A mutually agreed upon package of services—such as spay-neuter surgery, rabies vaccination, and ear tip—could be offered by the consortium at a reduced price point. Obtainment of a manageable commitment from multiple local veterinary practices may be a viable option to increase accessibility in some underserved communities, at least until such time as access to alternative sources of low-cost spay-neuter surgeries becomes available.
- Perhaps, PetSmart Charities could investigate the possibility of collaborating directly with private animal welfare organizations on TNR programs in select communities via utilization of PetSmart retail outlets. Humane traps and other equipment and supplies could be sold or rented at reduced prices. Potential expansion of PetSmart’s partnership with Banfield Pet Hospital—or another similarly capable entity--to include offering low-cost spay-neuter surgeries for

community cats might also be explored. Conceivably, local PetSmart stores could act hubs for TNR activities in given communities. It seems that assisting community cats via direct involvement in TNR programs would be a natural extension of PetSmart's existing commitment to providing in-store space for the adoption of homeless animals, as well as PetSmart Charities' steadfast financial support of TNR.

- Public funding of low-cost spay-neuter facilities should be explored. At minimum, one such facility is likely needed in each Ohio county.
- **Ohio Community Cat Congress**
 - As suggested by HS-9, a statewide summit of public and private community cat stakeholders could be arranged; or if more practical, regional meetings might be scheduled. Such sessions could be used to formulate strategy and establish collaborative relationships between stakeholders, as well as to garner publicity for the community cat issue.
- **Ohio Community Cat Collaborative Clearinghouse website**
 - Establish a website specifically designed for Ohio community cat stakeholders. Website content could be monitored and edited, yet encourage open dialogue and exchange of information between all of Ohio's community cat stakeholders-- private and public. The primary mission of the website would be to encourage and facilitate collaborative efforts to manage unowned cats by non-lethal methods in the state of Ohio. Such an interactive vehicle could provide community cat management information and training tutorials in addition to a state-specific mechanism for matching potential collaborative partners, perhaps via a

stakeholder referral network. The possibilities are virtually endless, but may include:

- podcasts
- webinars
- instructional articles and videos
- success stories/testimonials
- events listings
- grant and public funding opportunities
- news and relevant research
- links to related material
- chat
- expert interviews
- blogs/op-ed pieces
- feedback/letters to the editor

Potential for Collaborative TNR Programs—Matching Needs and Resources Worksheet

Table 3A: Match the needs and resources of your organization with those of potential collaborators	Spay- neuter Surgeries	Facilities (space for recoveries)	Personnel (trappers and/or caregivers)	Transportation (to and from surgery)	Equipment (traps, etc.)	Food (ongoing care)	Expertise (TNR instruction)	Funding (private grants or public)	Education-Community Outreach	Other
YOUR ORGANIZATION										
Gov. Animal Control Agency										
Shelter/Humane Society										
Low-cost Spay- neuter Clinic										
Local TNR- Rescue Group										
Other										

Instructions
 Place either the word **need** or **resource** in the blocks applicable to your organization and those of potential collaborator(s). When needs and resources match within a column potential for collaboration may exist (see example worksheets below).

Potential for Collaborative TNR Programs—Matching Needs and Resources Worksheet

Table 3B Example 1: Your organization is a TNR group thinking of collaborating with a low-cost S/N clinic		Spay- neuter Surgeries	Facilities (space for recoveries)	Personnel (trappers and/or caregivers)	Transportation (to and from surgery)	Equipment (traps, etc.)	Food (ongoing care)	Expertise (TNR instruction)	Funding (private grants or public)	Education- Community Outreach	Other
YOUR ORGANIZATION	Need	Need	Resource	Resource	Resource	Resource	Need	Resource	Need	Resource	
Gov. Animal Control Agency											
Shelter/Humane Society (in-house clinic)											
Low-cost Spay-neuter Clinic	Resource	Resource	Resource	Need	Need	Resource	Need	Resource	Resource	Resource	
Local TNR-Rescue Group											

EXAMPLE 2: Your organization is a shelter thinking of collaborating with an animal control agency		Spay- neuter Surgeries	Facilities (space for recoveries)	Personnel (trappers and/or caregivers)	Transportation (to and from surgery)	Equipment (traps, etc.)	Food (ongoing care)	Expertise (TNR instruction)	Funding (private grants or public)	Education- Community Outreach	Other
YOUR ORGANIZATION	Resource	Resource	Resource	Need	Need	Resource	Need	Resource	Need	Resource	
Gov. Animal Control Agency	Need	Need	Need	Need	Resource	Need	Need	Need	Resource	Need	
Shelter/Humane Society (in-house clinic)											
Low-cost Spay-neuter Clinic											
Local TNR-Rescue Group											

Legend
 Red block=organizational need; Blue block=organizational resource; Yellow columns=potential area for collaboration based upon match of needs and resources. Factors identified as needs and resources will vary by individual organization. Some factors may be neither needs nor resources for certain organizations. Some needs may require more than one collaborative partner to fill, or may be unresolvable through collaboration alone.