

Report of the TNT5 Deer Committee

Submitted February 12, 2013

Background

On Tuesday, September 11, 2012, the TNT Area 5 Eastside Planning Council (TNT5) held its regular monthly meeting in the Nottingham High School cafeteria. The meeting focused on the urban deer population on the eastside. Steve Joule, Regional Wildlife Manager for DEC Region 7, answered questions. According to newspaper estimates, roughly 200 residents attended, many of them expressing frustration over the deer population within the TNT5 district (http://www.syracuse.com/news/index.ssf/2012/09/200_attend_meeting_seeking_sol.html).

As a result, a committee was formed to study matters related to the deer population; nearly 20 residents signed up and attended the committee's first meeting. Later, a core group emerged and carried the committee's business forward. The committee has held four meetings; sought out information and counsel from experts at Cornell and SUNY ESF; done readings on the deer-management challenges of other communities; and, most significantly, conducted a survey of TNT5 residents, which sought further testimony about the prevalence of deer and concerns over their impact on people and environs. That survey garnered responses from 556 TNT5 households.

This report summarizes the Deer Committee's efforts and provides a recommendation to TNT5 about deer-management for our part of Syracuse.

Findings

Based on the survey and other, less systematic contact with residents, it is clear there is a high level of concern and frustration with the number of deer within TNT5 and the damage they do. The typical resident of TNT5 clearly feels that the situation is out of control and that *some* measures need to be taken. Many will tell you that the problems are very recent in vintage (e.g., arriving only within the past five years) and worsening at a remarkable pace.

The committee's readings and its consultation with experts substantiate the residents' concerns. There are dozens (if not hundreds) of communities facing the same deer-related challenges, and their experiences predict the likely future of TNT5: Once a deer "infestation" begins, it does not abate on its own; in fact, depending on the severity of the winters and an adequate supply of food, an infestation deepens quickly, at an almost geometric rate. Communities that fail to take steps during the early stages of an infestation find that, within just a few years, the infestation has mushroomed. Those same communities then face challenges that are worse by multiple degrees. This is a classic case of a problem much more easily nipped in the bud — earlier rather than later.

In the survey and in the discussions with experts, these emerged as the deer-related problems and worries that, together, demand a solution:

1) **Overall environmental imbalance.** Deer are both the perpetrators and victims of this phenomenon. Like almost any species that overpopulates, deer are depleting their own food sources while they also devastate the habitat and food sources on which other creatures depend. The herd will grow until sufficient competition for scarce resources causes the death rate to increase. Other species (e.g., birds) are already suffering from eco-system shifts caused by the deer that deprive them of shelter, nesting, and feeding.

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2) **Disease and sanitation.** Deer are so numerous that their droppings are dominant on some lawns; residents express particular concerns about allowing their children or grandchildren to play on lawns so littered with deer droppings. At the same time, while it is difficult to draw inarguable connections between deer and specific cases of Lyme disease, people do report finding ticks on themselves and on children, and there is a growing sense that incidents of Lyme disease within TNT5 are on the rise. According to experts consulted by the committee we should assume that deer are carrying the illness-bearing ticks into and throughout our area. According to information received by the committee from the County Health Department, Lyme disease is endemic to the county and zip code 13210 on the eastside has the most reported cases in the last four years (11 confirmed, 13 probable). Some specific cases of Lyme disease, with harrowing symptoms, were described in the survey responses.

3) **Deer/vehicle accidents.** In the survey, a high percentage of respondents report involvement in or witnessing deer/vehicle collisions; many others have stories of near-misses or the need for constant vigilance while driving in TNT5 neighborhoods. Respondents describe many thousands of dollars of damage to vehicles, as well as disturbing, sometimes heart-breaking stories of badly injured deer. According to the Syracuse Police Department Traffic Division, incidents of car/animal collisions are on the rise in the city, from 34 in 2008 to over 70 in 2012. The Traffic Division, however, does not track car/deer collisions specifically or car/animal collisions by region of the city.

4) **Damage to flora and other property.** By far, the most frequently expressed concerns relate to deer that eat flowers, shrubs, vegetables, and other plantings, sometimes at great cost to homeowners; complaints also extend to bird feeders and other property features. The immediate effects of flora devastation can be understood in dollars and cents; many survey respondents describe property damage (e.g., lost shrubbery) valued into the hundreds, sometimes even a few thousand dollars.

However, beyond immediate financial costs there is a much more general, psychic impact of the deer infestation. Survey responses evidence an emotional fatigue with the deer problem. Attempts to combat and accommodate the deer have eroded residents' basic enjoyment of their own properties. With heavy souls, homeowners are beginning to realize they can no longer use their properties in ways that once served their lifestyles. Their lawns and gardens are no longer sources of enjoyment and fulfillment to them. The deer infestation is eroding quality of life in this fundamental way. Some are even considering moving from the neighborhood.

Recommendations

Based on the above findings, *the TNT5 Deer Committee strongly recommends that TNT5 begin to work with its legislators and/or relevant city agencies to formulate and then implement a deer-management plan.* This committee has *not* taken as its charge the suggestion of an actual plan; more study by City, DEC, and other experts is required. We *do* note, though, that any successful plan that results in an immediate reduction in the number of deer would require culling (using specialized hunters to kill a prescribed number of deer). Culling would have to happen in an area, such as the Drumlins Golf Course, where it could be isolated from surrounding neighborhoods. Other approaches, such as sterilization and contraception, can be used, but they would take between five to ten years to reduce the number of deer. Both sterilization and contraception are more expensive than culling because they are medical procedures. Cayuga Heights near Ithaca, which is grappling with a deer problem similar to that on the eastside, has estimated that it would cost \$400 to cull a deer while it would cost \$1,000 to sterilize a deer. In our research, we find that, after the initial herd reduction, a successful deer management plan must be followed by scientifically informed, ongoing management of the herd size.

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The committee also recognizes that any such plan comes with attendant, considerable costs. We recommend that if those costs prove prohibitive, the City could and should create a special tax district in TNT5 or, perhaps, a smaller section thereof, to pay for deer management. It is our sense that most residents are worried enough about this problem that they will pay supplemental taxes to help alleviate it.

Besides implementation of a deer management plan, there are other steps the city can take to alleviate the impact of deer:

* The appropriate city agency should initiate a program to educate residents on the options they have for protecting plantings on their properties. See the appendix for a list of publications that would be helpful in developing this program.

* Another step that the city could take that would help residents protect their properties would be to allow eight foot fences on side and rear yards. Such fences currently must not exceed six feet in height. Deer can vault over a fence that is less than eight feet in height. Cayuga Heights has amended its regulations regarding fences to allow fences that are eight feet in height as long as 90% of the fence that is over four feet in height is not solid (<http://www.cayuga-heights.ny.us/doc/2011LL9.pdf>). The limitation to building fences is that each fence may solve one homeowner's problem while foisting that problem onto a neighbor.

* Given that Lyme disease is endemic to the county, the County Health Department should be encouraged to educate county residents, in particular eastside residents, on how they can protect themselves from the disease.

We acknowledge that among residents responding to the survey a small percentage object to a deer management plan. In all, fewer than 40 respondents were clearly in this camp, commenting either that the problem is negligible or that they object to any plan that includes culling. A few believe that humans are "causing" the deer problem by overtaking previous deer habitats for human use, and thus humans have no moral right to take the lives of deer as a tactic of deer management. Our expert contested their premise; deer thriving in the city were largely born there, not relocated from some former wilderness. Plus, the committee came to understand that sympathy for the deer is, in fact, *consistent* with a comprehensive management plan — one that includes culling of deer. A plan that does not include culling will mean that the TNT5 area will have to wait five to ten years to see a reduction in the number of deer. Meanwhile, the deer will be doomed to further overpopulation, depletion of food sources, and increasing encounters with traffic.

A deer comprehensive deer management policy that is developed for the eastside could eventually be used in other parts of the city. The committee has learned that at least two other TNT areas have deer present: the Southside – TNT3 (Strathmore Neighborhood) and the Valley – TNT4. While they are not experiencing the problems facing the TNT5, given a sufficient food supply, their deer populations will continue to grow and could reach the levels present on the eastside.

— TNT5 Deer Committee

Jim Simonis (chair)	Dave Kirby
Dick Brickwedde	Coy Ludwig
Dana Cooke	Nader Maroun
Pat Cridland	Sandy Porter
Mary Giehl	Fred Sanger
Susan Greenman	Joseph Spadaro

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Appendix: Survey of Residents

The TNT5 Deer Committee conducted a large community survey in early November. Hard-copy surveys were distributed at two polling locations on Election Day and an online survey was offered to residents via neighborhood associations, centers, and the like. (Online survey:

<http://www.surveymonkey.com/s/L8LYDPV>)

A total of 556 responses were received from TNT5 residents (and another 27 from other areas). It is assumed that most responses represent entire households, making the effective response well beyond 556 individuals.

Of those 556 responses, 293 were from the Meadowbrook area, 103 from the Westcott area, 78 from the University area, 47 from Salt Springs, and 32 from Outer Comstock.

Residents were asked how often they see deer; 329 (59 percent) said every few days or more. They were asked whether they had witnessed or been involved in a deer/vehicle accident within TNT5; 73 (13 percent) said yes. They were asked whether members of their households or pets had experienced Lyme disease; 44 (8 percent) said yes. This is a sampling of their responses regarding Lyme disease:

- My wife got the disease from a tick in our vegetable garden, which is frequently visited by deer. Fortunately, the disease was diagnosed early and antibiotics started immediately. Nonetheless, the entire summer was "lost" to this disease since my wife was frequently exhausted and not able to travel to visit our grandchildren

- It was my dog and she just tested positive for it and was put on several rounds of antibiotics to get rid of it.

- I got Lyme disease in June, 2009. I know I was bitten while working in my front yard garden. Fortunately I was diagnosed early by my daughter & was successfully treated with antibiotics. I am not convinced my doctor would have found the bite if I hadn't gone to the office with the diagnosis. (The bite was in the crease behind my knee.) I spent that entire summer suffering and recovering from the disease & continue to get regular blood tests to be sure it is under control. It was a horrible experience I wouldn't wish on anyone and believe we should do all we can to control the carrier, deer.

- My next door neighbor spends a significant amount of money saving his one year old dog from the disease. I treat my dogs and family members with antibiotics each time there is a tick bite. This is not something I wish to do, but with the threat so high in the area to begin with, no amount of preventative measures are helping control the problem.

- I tested positive for Lyme disease and was in the hospital for a week. The Lyme disease triggered an autoimmune disease that I am still being treated for, and it has turned into a long-term condition.

The survey also included open-ended (text-reply) questions about damage to flora and property; and inviting general comments about the deer. This is only a sampling of the responses:

- The back half of our yard is unusable due to the amount of scat they leave. My children are not able to play in their own yard, due to the scat and we fear ticks carrying Lyme disease (one of our neighbors found a deer tick on her cat). We have tried several methods to deter the deer from coming into our yard, all unsuccessful.

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- All of my gardens & much of my landscaping have been devastated by deer in the last few years. They come right up to the windows and front door.
- I believe that the deer in our neighborhood should be culled in order to protect the health and safety of the residents. While "Bambi" may be cute, the overpopulation and overcrowding have made for a serious health hazard. The venison would be a welcome donation for soup kitchens and the reduced danger would be a wonderful change for the neighbors. If we were talking about less cute animals, rats for example, there would be no question about culling the herd.
- Unfortunately as much as I like deer, I feel the problem in our area has gotten out of control. The destruction of property and safety concerns for drivers really needs the attention of our elected officials.
- The deer have destroyed shrubs which were planted long before we purchased our property in 1989. Starting 6 years ago, we had to put up a deer fence around our vegetable garden because 7 years ago, the deer destroyed our vegetable garden. This past year we put in a permanent deer fence around the garden at a cost of \$1650.00.
- I want them gone by whatever means that work. Aside from the damage they do to landscaping, I really worry about increased deer ticks and Lyme disease. There is nothing natural or right about the out-of-balance deer population in the city. It's unfair to homeowners and to the deer.
- Twin fawns born late in the summer have been abandoned by mother. Deer dashing out from shrubs near Jewish home a potential hazard.
- I do not walk on the lawn or in the flower beds for fear of Lyme disease. In the late spring, I leaned over a hosta plant and got a tick on the back of my leg. I removed it immediately and have been okay but I was quite worried.
- Thin them out. Shoot. Give food to Food Bank.
- The problem has gotten MUCH worse in the last two years. I am not replanting (as I imagine is the case with many of my neighbors) so the food for them will decrease even more beginning next year. This will exacerbate the problem.
- They've made it impossible for us to have a vegetable garden. They seem to eat everything except hot peppers. We have had a vegetable garden for over 25 years, and this year we gave up.
- Overpopulation is an insufficiently recognized public health problem
- The deer in our neighborhood are out of control. There are too many for all the reasons listed in the opening letter. It is not pretty in the winter to see them starving.
- We pay \$500 to spray the shrubbery as a deer repellent applied by Bartlett Tree Service every fall.
- Last year we had a mother deer and 2 fawns living in our backyard. The mother's front leg had been broken. We called animal control and no one did anything. We had to watch her suffer for months.
- For seven years all my flowers have been eaten even after several sprayings of liquid fence. They have even come up to my front door and eaten all the flowers in pots. FRONT DOOR!!!
- Neighbors & myself have actually had herds working together. They have no fear and will not leave if you show any kind of commotion. Have been told by environmental expert they can become quite aggressive.
- Destroyed a lifetime of creating a garden.

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- *My husband and I are not averse to humanely culling deer. It does seem better than dying of starvation and other accidental death*
- *Every hosta; germanium; pachysandra flower eaten. Large piles of deer scat litter the yard. They are actually eating the vines off the house*
- *The deer are all over my property - back, front, and side yards. I'm afraid to work in the garden, etc. due to ticks. I don't want to invest in flowers any more. Please do something to get the deer under control.*
- *This has gotten worse very rapidly. 5 years ago we almost never saw a deer, now we see them almost every day. We put up deer fence, but they push under it or jump over it at any spot they find the least weakness. They are unafraid--you have to run up to them yelling and waving your arms, and they don't budge until you are about 15 feet away. I would shoot them if I could. The charm of "Bambi" has evaporated.*
- *All vegetables and decorative plants were eaten this past summer - definitely noticeably worse damage than the year before*
- *The deer invasion into residential areas MUST BE STOPPED! By any means! The devastation and the health/safety risks carried are too high to tolerate! It feels like living in a Hitchcock world... Yet, worse, the city "codes" prevent us to build any defense, including a simple, almost invisible net!?*
- *Deer eat plants so excessively that whatever they eat there is nothing left. Additionally, they nest/sleep in the yard so often that the grass is damaged, and there are areas where grass has been dug up or plants trampled. Deer droppings have also impacted the yard.*
- *It gets worse every year, just unbearable now. It is just a matter of time before there is a terrible accident in the area.*
- *From 2003 when I moved here until two years ago I only noticed damage to vegetables in garden. In past two years they eat almost everything including hostas, sedum, lilies and any other plant with spikes*
- *My property was devastated this year. My vegetable garden and yard was ravished. Every plant was eaten down to the roots (other than large trees). I had hundreds of plants in my yard. Even past methods to divert deer no longer work, which did in the past, such as hot pepper spray on plants, blood meal on petals and ground, and liquid fence deer and rabbit repellent.*
- *The deer are looking very thin and unhealthy. The herd should be managed so the healthy survive. There should be a special tax for this area to help solve the deer issues. If we do nothing the problem will only keep getting worse. The sooner we can get some action the better for the deer and the residents.*

Among the very few comments that argued against a plan or against culling were:

- *I enjoy seeing deer, add beauty, diversity.*
- *We created the problems leading to overpopulation of the deer. It is not their fault! Therefore, we need to live with them and not kill them as I am sure you are proposing! The deer I see everyday appear to be healthy and they are never threatening as long as I respect their space.*
- *We really enjoy the deer, and they do not come into our backyard because it is fenced in for our dogs, but we have no fancy landscaping and no vegetable garden because we know it will just get eaten by the deer. That is fine with us.*

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- *We have a wooded lot. Deer pass frequently. They are relatively harmless. We have more important issues to focus our limited resources on.*
- *Let them live; enjoy them. Put up deer Xing signs on Euclid. Tell people what plants not to plant.*
- *Killing unacceptable; move deer or spray to encourage them to move*

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Appendix: ESF Expert

On October 30, the guest of the Committee was Brian Underwood, Adjunct Associate Professor, ESF Department of Environmental and Forest Biology, and Research Biologist with the USGS. He has worked with the management of the deer population on Fire Island and in Irondequoit, N.Y.

Underwood recommended establishing a baseline for East Side land use, deer population numbers, and density.

As for Lyme disease, he described a two-year tick cycle involving deer mice, from which ticks derive the disease; the ticks then attach to deer, which carry the disease into neighborhoods. Lyme disease is present in the TNT5 area.

Underwood reported that the two main agencies concerned with plans for deer population management are the NYS Department of Environmental Conservation (DEC) and USDA's Animal and Plant Health Inspection Service (APHIS). We could expect advice or perhaps data from the DEC, but not funding. A contract can be negotiated with APHIS to cull the deer. Any actual plan would have to be worked out with the County of Onondaga and the City of Syracuse.

Underwood discussed the various options for deer population management. Fertility control through immunological contraception is a possibility, but does not suffice alone. Surgical sterilizing of female and/or male deer will require a mobile unit and professionals, at considerable expense. Culling (hiring sharpshooters) is a method that most communities have adopted. Paying for sharpshooters, the cost of hiring off-duty police and providing them with hazard pay to monitor the proceedings, and the cost of a contract with APHIS can be expensive.

He concluded that all means of reducing and/or managing a deer population are costly, and require an ongoing commitment from the community, including funding. There is no perfect, inexpensive, or short-term method that would be successful. Programs that are successful have involved establishing a baseline of data (number of deer, an idea of their area and density), agreement of interested parties on the issues with everyone being on the same page, and a goal or criteria for successful management.

Based on the amount of damage that deer are doing to plantings on the eastside, Underwood estimated that there are possibly as many as 50 deer per square mile on Syracuse's East Side.

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Appendix: Publications regarding deer management

"A Citizen's Guide to the Management of White-tailed Deer in Urban and Suburban New York", P. Bishop, J. Glidden, M. Lowery and De. Rielman, New York State Department of Environmental Conservation, 2007 (http://www.dec.ny.gov/docs/wildlife_pdf/ctguide07.pdf).

"Community-Based Deer Management: Learning and Community Capacity", T. Bruce Lauber, Department of Natural Resources, Cornell University (<http://www2.dnr.cornell.edu/hdru/pubs/HDRUReport10-1.pdf>).

"Contraception & Deer: The Irondequoit Report", William F. Porter and H. Brian Underwood, Roosevelt Wildlife Station, 2001.

"Cornell University Integrated Deer Research and Management Program: 2007-2011 Progress Report", Paul D. Curtis and Jay R. Boulanger, Department of Natural Resources, Cornell University (<http://wildlifecontrol.info/deer/Documents/2011%20IDRM%20Progress%20Report.pdf>).

"An Evaluation of Deer Management Options, Northeast Deer Technical Committee, 2009 (http://www.dec.ny.gov/docs/wildlife_pdf/Deermgtopt08.pdf).

"Management Plan for White-tailed Deer in New York State 2012-2016", New York State Department of Environmental Conservation, 2011 (http://www.dec.ny.gov/docs/wildlife_pdf/deerplan2012.pdf).

"Plants that Deer Do Not Like to Eat", Mark Bridgen, Cornell Plantations, 2008 <http://www.cayuga-heights.ny.us/doc/DEER%20-%20Bridgen%20Plant%20List%20Oct2010.pdf>).

"Reducing Deer Damage to Home Gardens and Landscape Plantings", Paul D. Curtis and Milo E. Richmond, Department of Natural Resources, Cornell University (<http://wildlifecontrol.info/pubs/Documents/Deer/reducing%20deer%20damage.pdf>).

Appendix: Web sites regarding Lyme disease

Centers for Disease Control and Prevention: <http://www.cdc.gov/lyme/>

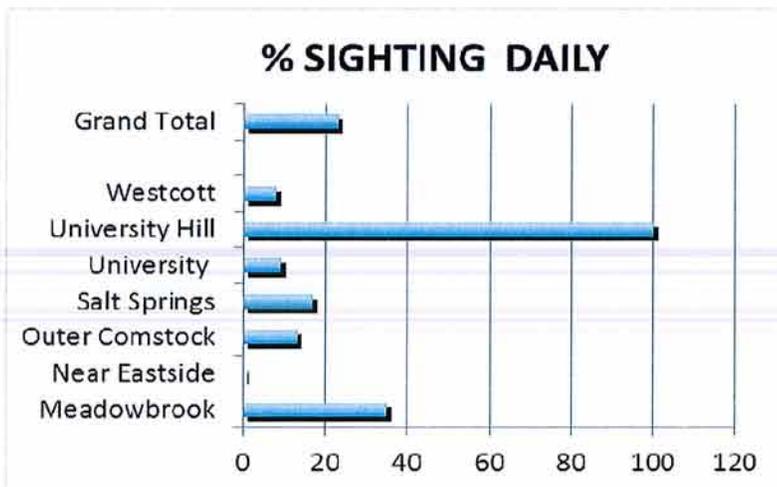
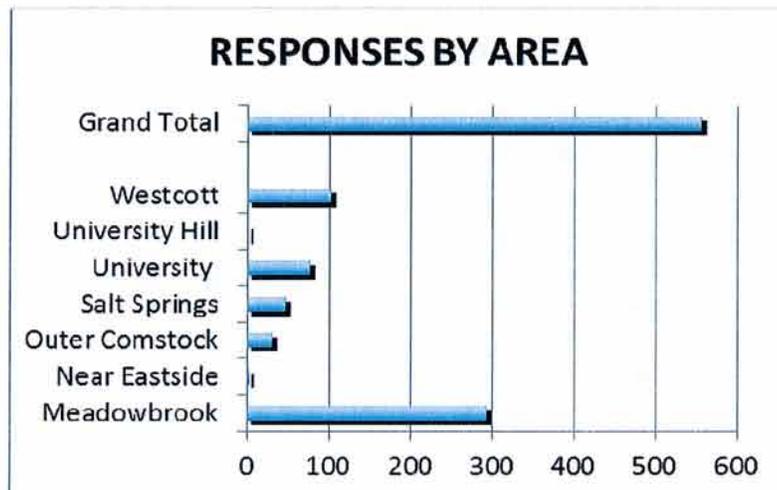
Onondaga County Health Department: <http://www.ongov.net/health/lyme.html>

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Appendix: SURVEY SUMMARY

	RESPONSES	% SEE DAILY	% EVERY FEW DAYS	% LYME+	% CAR+
Meadowbrook	293	35	41	7	14
Near Eastside	2	0	0	0	0
Outer Comstock	32	13	22	9	6
Salt Springs	47	17	38	4	32
University	78	9	36	9	6
University Hill	1	100	0	0	0
Westcott	103	8	24	11	10
Grand Total	556	23	36	8	13



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