



CLEVELAND HEIGHTS

Public Safety and Health Committee

August 27, 2024

5:00 PM

City Hall – Executive Conference Room

Signs & Signals, Traffic & Transportation, Health Services, Police & Fire Protection,
Safety Education

Council members

Chair: Jim Posch | Vice Chair: Gail Larson | Member: Craig Cobb

Agenda

- 1) Call to Order/Roll Call**
- 2) Lead Safe Status**
Director Zamft and Staff
 - a. Update
- 3) Safe Streets for Cleveland Heights**
 - a. City's Comprehensive & Equitable Safety Action Plan (CESAP)
<https://www.safestreets4ch.com/>
 - b. Municipal Services and Environmental Sustainability Committee Meeting Recap
 - c. Open House Recap
 - d. Traffic Accident Costs
Guest: Chris Brace
- 4) Deer Management**
 - a. TAC Memorandum
 - b. Jim's meetings with residents
 - c. Public Hearing Planning



CLEVELAND HEIGHTS

- 5) **Role of Public Safety and Health Committee**
 - a. Discussion: Actionable Items List
 - b. Discussion: Next Steps
- 6) **Other**
- 7) **Adjourn**

BLEEDING MONEY

Traffic Accidents in Cleveland Heights

EXECUTIVE SUMMARY

The cost of outdated roadway design is substantial and increasing nationwide. Cleveland Heights lags both international and national standards in roadway safety, and aggressive action is needed to protect residents and our civic budget.

COMPREHENSIVE COSTS

	Accidents		Avg. Cost / Accident		\$ Damages
5 Years	3,518	x	\$125k	=	\$439M
Last Year	624	x	\$188k	=	\$117M

Adjusted for underreporting, the true 5-year cost likely exceeds \$502 million, and last year’s costs likely exceed \$133 million. For context, the 2024 city budget was \$134 million. (FAQ ii)

IN PERSPECTIVE, 2023-2024

	EU	Ohio	USA	Cleveland Heights	Relative Risk
Death Rate / 100,000 Persons	4.6	10.8	12.8	13.6	3x

This year, Cleveland has set aside \$10-15 million for speed tables and traffic calming measures. Proportionally, Cleveland Heights should consider budgeting \$1.2-1.5 million this coming year.

SOLUTIONS:

Cleveland Heights is currently preparing a Comprehensive and Equitable Safety Action Plan (CESAP) under the federal Safe Streets for All program. The CESAP will offer actionable guidance on traffic calming solutions, but will require substantial investment to bridge the gap between report release and the arrival of state, county, and federal funds.

We recommend that the city immediately increase funding for quick-build traffic calming solutions, and make the allocation a part of the recurring annual budget.

FAQ:

- i. Why is the average accident so costly?
 - a) Severe and fatal crashes skew the average. Despite being less than 2% of accidents they account for over 60% of comprehensive costs, with injuries and loss of life as dominating factors. Less serious accidents are more common (~80% of the total) and have average costs under \$20,000 per incident.
- ii. How do we calculate the cost of an accident? What factors are included?
 - a) The [National Safety Council](#) (NSC) calculates a “Comprehensive Average Cost” for accidents, which agencies nationwide use to inform safety policy. These figures include personal costs, insurance costs, public service costs, and intangible costs like the human impacts of deadly or disabling accidents. These intangible and community factors can raise the comprehensive cost far beyond the individual checkbook amount, especially for fatal and serious accidents.
- iii. How were these numbers calculated?
 - a) The Ohio State Patrol’s [OSTATS Crash Dashboard](#) provides crash statistics, which we combined with official [NSC](#) crash cost data and adjusted for [inflation](#) to produce these figures. Relative accident rates were sourced from the [IIHS](#) for American figures, and the EU Commission on Mobility and Transport for [European figures](#).
- iv. What is meant by underreporting adjustments?
 - a) Police reports often miss less severe crashes. We used conservative estimates from the Journal of Accident Analysis and Prevention to improve the accuracy of our figures.
- v. How can I get involved?
 - a) As part of the CESAP process we encourage everyone to provide public comment on the suggestions map at www.safestreets4ch.com. Additionally, we encourage residents to consider contacting City Council, the Mayor’s Action Center, and civic leaders to advocate for both traffic calming and the rapid funding and implementation of the Safety Action Plan on its release.

APPENDIX: DETAILED 5 YEAR STATISTICS

Last 5 Years	Accidents		Comprehensive Cost (NSC)		Estimated Damages
Fatal	15	X	\$14,070,351	=	\$211,055,265
Serious Injury	47	X	\$1,144,000	=	\$53,768,000
Minor Injury	248	X	\$248,976	=	\$61,746,048
Injury Possible	450	X	\$135,219.61	=	\$60,848,825
Property Damage	2758	X	\$18,780.50	=	\$51,796,619
Total				=	\$439,214,757

**Resolution of the Cleveland Heights Transportation and Environmental Sustainability
Committee on Deer Management in Cleveland Heights**

Whereas,

- Deer/Vehicle accidents have increased fivefold between 2014 and 2021, and
- Deer carry diseases transmissible to humans such as SARS-COV 2 and Lyme Disease, and
- Deer cause extensive damage to City and residential property, and
- Deer cause extensive damage to the local and global ecosystem, and
- The Transportation and Environmental Sustainability Committee (TESC) then as the Transportation Advisory Committee (TAC) previously recommended the City Manager address the exploding deer population in the City of Cleveland Heights, and
- The TESC has conducted research into deer management, including obtaining cost estimates for a survey of the current deer population within the City boundaries

Therefore be it resolved that the Transportation and Environmental Sustainability Committee recommends that the Mayor and City Council take action to reduce the deer herd within the City of Cleveland Heights by:

- Reviewing the accompanying summary of the current deer situation in the City
- Perform a citizen survey based upon the one herein to determine the level of citizen support for deer management
- Perform a survey of the current deer population within City boundaries
- Contact ODNR Deer Management specialist, Geoff Westerfield, for assistance to develop a Deer Management Plan based upon citizen survey results
- Contact the Mayor of University Heights, other nearby suburbs, and Cuyahoga County to jointly address a regional issue

Cleveland Heights Deer Management Considerations, Options, and Actions

Recent reports of increased damage by whitetail deer within Cleveland Heights have been received from local residents, naturalists, City staff and police. To address these concerns, the Transportation and Environmental Sustainability Committee (TESC) recommends that the City move forward to manage the herd to reduce the number of deer in the City. We have support from ODNR's division of wildlife management, in particular from deer management specialist Geoff Westerfield.

A 2014 aerial survey confirmed 48 deer within Cleveland Heights City limits plus possibly 29 more. Shaker Heights estimates that the herd is growing by at least 37%/year. These numbers indicate that the City-wide deer herd in Cleveland Heights has probably grown to 301-435 between 2014 and 2021. This increase is reflected in an increase in car/deer traffic accidents within that time period. Cleveland Heights has an area of 8.12 square miles, making the deer density in the City probably between 35-54 deer/sq. mi. The natural density of deer in the wild is approximately 3-7 deer/sq. mi.

According to Mr. Westerfield, the first steps to establishing a deer management program are:

- 1) Track data on deer/vehicle accidents within Cleveland Heights. Cleveland Heights police have this data for several years.
- 2) Survey residents to determine the "cultural carrying capacity", or tolerance level of citizens for deer.
- 3) Decide an acceptable level for social tolerance based on survey results. Westerfield recommends 50% of residents who are comfortable with the number of deer in the City and 50% who feel the deer population should be lower.
- 4) Perform a survey to establish a baseline of the number of deer in Cleveland Heights.
- 5) Write a management plan. Westerfield has a template that he finds successful and that can be modified to meet the needs of individual municipalities.
- 6) Westerfield will analyze the resident survey results and the number of deer in the City to recommend a target take number each year.

University Heights is at a similar stage of initiating the deer management process. Collaborating may be advisable, though the monetary savings will not be great. The greatest savings may be in conducting the deer population survey together.

TESC explored various deer population control methods. Of these, listed below, only lethal methods of hunting and sharpshooting are effective and legal in the State of Ohio.

Sterilization methods, specifically ovariectomies on does, have been proven to be costly and ineffective. In addition, sterilization is illegal in the State of Ohio except for experimental purposes. Therefore, TESC only recommends lethal methods for deer management.

No Feeding

- Fed deer are more likely to give birth to twins and triplets, leading to population explosion
- Education of citizens is preferred to ordinances because the latter are difficult to enforce. However, people who feed deer rarely change their behavior with information.

Lethal Control Methods

- Hunting with gun and bow is advocated by ODNR; needs special permits and monitoring of hunters; 10' off ground; 3 acres or more; special permission from property owner. Each municipality writes its own regulations and issues permits.
- Sharpshooting professionals are advocated by ODNR; needs special permits and monitoring of hunters; 10' off ground; special permission from property owners. High costs associated with this option, especially in early years when drawing down the deer population. USDA has sharpshooters at a lower cost compared to private companies. Each municipality writes its own regulations and issues permits.

Birth Control and Sterilization

- Fertility control programs are only permitted for very limited research in the State of Ohio.
- Ovariectomy is preferred to tubal ligation or castration.
- Effective only in small geographic areas, small herds, and a closed deer population, such as an island.

Trapping and Translocation

- Not permitted in the State of Ohio, due to an 80% mortality rate.

Reintroduction of Wolves

- Wolves are the most cost effective and efficient predator of whitetail deer.

Steps for Starting a Targeted Deer Removal Program (from ODNR Deer Specialist Geoff Westerfield)

1) Address any needed ordinance modifications to allow the program. Suggested ordinance language to use is:

Hunting of white-tailed deer, or any other wild animals, may be permitted only after receiving a Municipal Wildlife Control Permit issued by the Chief of Police, or their designee, and shall not be in conflict with state law pertaining to hunting as set forth in Chapters 1531. and 1533. of the Ohio Revised Code or rules enacted in accordance with those chapters.

The Chief of Police shall establish the criteria for issuance of Municipal Wildlife Control Permits and the rules and regulations for use.

Municipal Wildlife Control Permits and the rules and regulations for their use shall be approved by the Administrator following review by Council and shall not be in conflict with state law pertaining to hunting as set forth in Chapters 1531 and 1533 of the Ohio Revised Code or rules enacted in accordance with those chapters.

Municipal Wildlife Control Permits are not required on city owned or managed land. The Chief of Police may establish appropriate rules and regulations for hunting on city owned or managed land. These rules and regulations shall be approved by the Administrator following review by Council.

2) Conduct a deer population survey (usually conducted November-March). Options include:

- a. USDA Division of Wildlife Services – John Paul Seman, john.p.seman@usda.gov, (330) 618-7221.
- b. Davis Aviation – (216) 838-2500.
- c. Conduct a USDA Division of Wildlife Services-approved survey using city staff.

3) Determine goal numbers for deer-vehicle collisions and public attitude and develop a Division of Wildlife approved Deer Management Plan. Options for plan development include:

- a. USDA Division of Wildlife Services can write the plan for the city to approve free of charge.
- b. USDA Division of Wildlife Services – John Paul Seman, john.p.seman@usda.gov, (330) 618-7221.
- c. City can write the plan and submit for USDA Division of Wildlife Services approval.

- 4) Ensure data collection protocols are in place as outlined in the Deer Management Plan.
- 5) Determine who will do the targeted deer removal. Options include:
 - a. USDA Division of Wildlife Services – John Paul Seman, john.p.seman@usda.gov, (330) 618-7221.
 - b. Certified nuisance wildlife control company. Those experienced with deer removal programs in NE Ohio are:
 - i. Precision Wildlife – Jim Mariano, james.mariano@precisionwildlife.us, (216) 406-5418.
 - ii. A&S Animal Control – Steve Suder, asanimalcontrol@yahoo.com, (440) 439-7359.
 - c. Use of city staff (if suppressors will be used and you don't already have a license to use them, ATF paperwork will be required for use of suppressors and license may take a few months to receive).
- 6) Determine logistics for operations.
 - a. Who will do the baiting: contractor or city staff?
 - b. Will a butcher be needed or will deer be given to people?
 - c. Level of police presence during operations that will be required
 - b. Identify shooting locations, the more shooting locations available will mean a more successful a program. Should include both public and private property locations.
- 7) Determine appropriate number of deer to be removed using data collected.
- 8) Submit the annual request for how many deer to be removed using supplied template from Division of Wildlife (due no later than 30 days prior to start of operations).
- 9) Conduct deer removal operation (usually done from October through March).
- 10) Submit the annual end of operations report using supplied template from Division of Wildlife (due no later than May 1st).
- 11) Consider need for any additional deer population surveys.
- 12) Repeat process starting at step #5.

Suggested survey for Cleveland Heights residents pertaining to deer management

Background: Whitetail deer are beautiful animals native to Northeast Ohio. In the wild, the deer population averages 3-7 deer per square mile and is controlled by top predators such as wolves. However, without natural predators in the city, the number of deer has exploded in recent years, pushing many municipalities to consider management strategies. Cleveland Heights may have over 425 deer within our 8.12 sq. mi., or 55 per square mile. The City of Cleveland Heights wants to know how you feel about the number of deer that currently live in our city. Please take a few minutes to answer the questions below to give us information to appropriately shape a deer management program.

Naturalists believe the deer population is growing 30%-37% per year. These numbers indicate that the city-wide deer herd in Cleveland Heights has probably grown to 301-435 between 2014 and 2021. This increase is reflected in an increase in car/deer traffic accidents within that time period. Cleveland Heights has an area of 8.12 square miles, making the deer density in the City probably between 35-54 deer/sq. mi. The natural density of deer in the wild is 3-7 deer/sq. mi.

Deer carry diseases. 80% of deer in Ohio carry SARS-CoV-2, and while deer-to-human transmission is rare, the deer herd is an additional reservoir for the virus to mutate. Deer also carry ticks that transmit Lyme Disease to humans. The abundance of deer feces creates problems for homeowners and landscapers, and contaminates water in Lake Erie. People and their pets have been kicked by deer. An overpopulation of deer also causes diseases such as Chronic Wasting disease to spread within the herd.

The neighboring City of South Euclid¹ recently considered non-lethal methods to control the deer population, and was granted authority to carry out a limited hybrid lethal/non-lethal program on an experimental basis. The Ohio Department of Natural Resources (ODNR) has indicated it sees no basis for an experimental waiver in Cleveland Heights. Cleveland Heights does not recommend non-lethal methods to control deer because they are expensive, ineffective, and, in the absence of a waiver, illegal in the State of Ohio.

Meat from deer management would be processed and distributed through local hunger centers and homeless shelters.

¹ Formatting and results from South Euclid can be seen here:

<https://www.cityofsoutheuclid.com/wp-content/uploads/2019/10/SE-Deer-Survey-Data-All-190909.pdf>

1. Generally, which of the following best describes your feelings toward the deer population in Cleveland Heights?

- Mostly positive
- Mostly negative
- I have no particular feelings about deer
- Both positive and negative

2. Do you consider the presence of deer in your neighborhood to be a major problem?

- Yes
- No
- I don't know

3. Overall, in your opinion, has the number of deer in your neighborhood increased during the past five (5) years, decreased during the past five (5) years, or stayed about the same?

- Increased
- Decreased
- Stayed the same
- I don't know

4. In a typical week, about how many deer do you see in your neighborhood?

- None
- 1-4
- 5-9
- 10 or more

5. If you answered that you see 10 or more deer on a weekly basis, do you live near a forested area or large open greenspace? (Yes/No)

6. Do you have any concerns about:

- a. Interactions between deer and humans in Cleveland Heights? (Yes/No)
- b. An increase in deer population in the future? (Yes/No)
- c. Deer/Vehicle Accidents? (Yes/No)
- d. Damage to landscape and garden plants? (Yes/No)
- e. Transmission of diseases to humans or animals? (Yes/No)
- f. Damage to parks and natural areas by over-browsing on native foliage plants? (Yes/No)
- g. Decline in deer health due to overpopulation? (Yes/No)
- h. Individual welfare of deer? (Yes/No)

7. Has someone in your household been involved in a car/deer collision within the City of Cleveland Heights in the last five (5) years? (Yes/No)

8. Have your garden plants or landscape been damaged by deer in the last five (5) years? (Yes/No)

9. Have you used any of the following measures to prevent deer damage in the last five (5) years? Check all that apply.

- Fencing
- Odor or taste repellants
- Frightening devices
- Deer-resistant plants
- I have not taken any measures
- I have not had any damage

10. Effectiveness of (quite effective, somewhat effective, not effective)

- Fencing
- Odor or taste repellants
- Frightening devices
- Deer-resistant plants
- I have not taken any measures
- I have not had any damage

11. Have you had other property damage such as broken fences, windows, cars? (Yes/No). Please describe _____

12. Your costs to protect your property from deer damage? (>\$100, \$50-\$99, \$1-\$49, NA)

13. Are there any other measures you have taken to prevent deer damage in the last five (5) years? _____

14. Where do you most encounter deer?

- On your property
- Very close to your property
- In a public setting like a park or open space?

15. How much do you know about deer and their lifecycle?

- A great deal
- A lot
- A moderate amount
- A little
- None at all

16. To what extent are you concerned about the following issues related to a potential deer control program?

- Individual welfare of the deer
- Cost of the program
- Effectiveness
- Management of marksmen
- Public safety
- Public notification in areas where deer culling is occurring
- Marksmen usage of firearms/Bows on city property

17. Do you consider the management and control of the deer population to be...

- A regional issue that requires regional (multi-city/county) solutions
- An issue that our city should manage on our own
- A combination of both
- I don't know

18. Should the City of Cleveland Heights look at ways of controlling the deer population?
Choose one of the following:

- Yes, begin a deer management program in Cleveland Heights
- No, leave the deer alone, allowing the herd to continue to increase

19. Do you own or rent your residence? (Own/Rent)

20. How long have you lived in Cleveland Heights? (1-5 yrs., 6-10, 11-15, 15-20, >20)

21. Please provide any additional feedback you have about deer management.

Hi All. I got two price quotes for gathering data on the current deer population in Cleveland Heights. I also have the cost for surveying University Heights' deer, however it will not help reduce the cost to survey CH and UH together.

Davis Aviation performed the 2014 deer population study in eight eastern suburbs. It was performed by flyover with infrared heat sensing. A new survey would use the same technology. Cost estimate from Davis Aviation is \$15,591 based on \$3/acre. It would cost \$3,456 to survey University Heights.

USDA uses drive-by infrared technology. The cost to survey Cleveland Heights is \$1,710; University Heights would cost \$950.

While there is no cost savings to perform the survey together with University Heights, USDA said there may be some savings when (if) we get to culling to work in the two cities together, depending on target sites.

With either company, we are running out of the season to perform a deer population study. It needs to happen by April 1, or wait until mid-November for USDA or January for Davis Aviation.

Next steps?

Laura

Here is the email I received from USDA biologist John-Paul Seman summarizing his perspective, including price quote for the population study and paperwork for contracting.

Laura

----- Forwarded message -----

From: **Seman, John Paul R - MRP-APHIS, Sandusky, OH** <john.p.seman@usda.gov>

Date: Mon, Mar 7, 2022 at 2:48 PM

Subject: Re: [External Email]Cleveland Heights deer Management

To: Laura Marks <heightstreepeople@gmail.com>

Laura,

There is still a chance we might be able to fit the deer survey/counts in this march or early April. If not then it would have to be next fall sometime. We would have to sign into separate cooperative service agreements (CSAs) for each city so it is best if University Heights contacts me directly (I still included a cost for them since you requested it). Survey/Counts are done based on the amount of time each would take by area. For surveys because we know how long they take we do ask for the funds at the time the CSA is signed prior to work being completed. See below for how much the cost would be to each city. If you would like to proceed please let me know soon so I can get a CSA ready that might allow for it to be done this spring?

Cleveland Heights - \$1710

University Heights - \$950

As for removal of deer (culling) I cannot give you an accurate estimate without first seeing what we would have to work with. I would need to know what kind and how many sites would be available and how many deer would need to be removed. So I would need to set up a site visit to talk with someone familiar with the city and the sites that would be available. I would have additional questions at that time (i.e. just using city sites or also using private, etc). These agreements (CSAs) for removal are set up as reimbursable and are not up front funds. If you would like to set up a site visit please let me know?

Thanks, JP

John Paul Seman

District Supervisor

Certified Wildlife Biologist®

USDA/APHIS/Wildlife Services

[6100 Columbus Avenue](#)

[Sandusky, Ohio 44870](#)
(330) 618-7221
(419) 625-8465 (fax)
john.p.seman@usda.gov

From: Laura Marks <heightstreepeople@gmail.com>
Sent: Sunday, March 6, 2022 9:13 AM
To: Seman, John Paul R - MRP-APHIS, Sandusky, OH <john.p.seman@usda.gov>
Subject: [External Email]Cleveland Heights deer Management

[External Email]

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Good morning, John.

I got your name from Geoff Westerfield from ODNR. I am on the Cleveland Heights Transportation and Environmental Sustainability Committee. We have passed a resolution to go to our City Council to begin gathering data to assess our need for deer management. Geoff Westerfield recommended I contact you.

We need a price estimate to survey the deer population within the City of Cleveland Heights (8.12 sq.mi). We would like an additional quote to survey both Cleveland Heights and University Heights (1.82 sq.mi.).

I understand that USDA will perform a deer count.

We would also like to give City Council and our mayor price estimates for retaining USDA sharpshooters to begin culling our deer. We need a price for both killing and processing deer.

Thank you for your help.
Laura Marks
216-321-7543

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VENISON DONATION COALITION

The Venison Donation Coalition, Inc. is a non profit organization that coordinates the efforts of hunters, deer processors, food banks, individuals and organizations to provide a high protein, low fat meat source to the hungry.



- Established in 1999
- Services 43 counties throughout New York
- Averages 37.58 tons of venison per year
- Approx. 300,000 meals served per year

feedingnys.org


FEEDING
NEW YORK STATE

Suggested City Hunting/Trapping Ordinance Language

XXX.XX HUNTING AND TRAPPING.

- (A) Hunting of white-tailed deer, or any other wild animals, may be permitted only after receiving a Municipal Wildlife Control Permit issued by the Chief of Police, or their designee, and shall not be in conflict with state law pertaining to hunting as set forth in Chapters 1531. and 1533. of the Ohio Revised Code or rules enacted in accordance with those chapters.
- (B) The Chief of Police shall establish the criteria for issuance of Municipal Wildlife Control Permits and the rules and regulations for use. Municipal Wildlife Control Permits and the rules and regulations for their use shall be approved by the Administrator following review by Council and shall not be in conflict with state law pertaining to hunting as set forth in Chapters 1531. and 1533. of the Ohio Revised Code or rules enacted in accordance with those chapters.
- (C) Municipal Wildlife Control Permits are not required on city owned or managed land. The Chief of Police may establish appropriate rules and regulations for hunting or trapping on city owned or managed land. These rules and regulations shall be approved by the Administrator following review by Council.
- (D) Trapping of wild animals may be permitted only:
 - (1) When done in accordance with the state laws and regulations for nuisance wild animals set forth by the Chief of the Division of Wildlife, or
 - (2) During the statewide trapping season when done in accordance with the state laws and regulations as set forth by the Chief of the Division of Wildlife only after receiving a Municipal Wildlife Control Permit.
- (E) Whoever violates this section is guilty of XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX.

City of XXXXXXXX
Municipal Wildlife Control Permit Application

Section 1: Applicant Information

()		
Name of Permittee	Phone Number	
Address	City	Zip

Section 2: Location Information

Parcel #'s of Properties to be included on the Municipal Wildlife Control Permit

	Auditor's Parcel Identification Number(s)	Signature of landowner (by signing you are providing written permission for activities to occur)	# Acres
1			
2			
3			
4			
5			

If more than 5 parcel #'s check here ☐ and list the parcel number along with a signature for each on the back of this application

Section 3: Type of Permit

☐ **Hunting**

Is this application being made in conjunction with a Division of Wildlife Deer Damage Control Permit? (check one)

☐ **Yes** (If yes, application is due 15 days after issuance of the Deer Damage Control Permit)

☐ **No** (If no, application deadline is August 15th)

☐ **Trapping of Furbearers** (Application deadline is October 1st) *No Municipal Wildlife Control Permit is required if trapping under the state nuisance laws*

Wildlife species you are applying to control: _____

Section 4: Hunter/Trapper Information (maximum of 5)

	Legal Name of Proposed Hunter/Trapper	Drivers Lic. # (if they have one)	Date of Birth
1			
2			
3			
4			
5			

All hunters/trappers may be subject to a background check

*I hereby acknowledge that any false information in this application of a Municipal Wildlife Control Permit is punishable under city ordinance
XXX.XXX and reason for immediate denial of this application.*

_____ Signature of Applicant	_____ Date
--	----------------------

Checklist of items to include with this application

- ☐ A map is attached clearly showing which properties are being applied for that are identified in Section 2 of this application
- ☐ If "Yes" is checked under hunting in Section 3 of this application, then a copy of the issued Deer Damage Control Permit must be attached
- ☐ If for hunting, proof of passing a hunter education course or equivalent type of safety training is attached for each person named in Section 4
- ☐ A check for the application fee of \$XX payable to the City of XXXXXXXXXXXXXXXXX

Mail completed application and all necessary documents noted above to:

City of XXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXX, OH XXXXX

Municipal Wildlife Control Permit

The following permit is issued to:

(Name of Permittee) _____ (_____) _____
Phone Number

(Mailing Address) _____ (City) _____ (Zip Code)

This permit is valid for the following activity: ☐ hunting ☐ trapping of _____
(species)

This permit may be utilized on the following properties:

Auditor's Parcel Identification Number(s)
1.
2.
3.
4.
5.

The below listed shooters may shoot using this Municipal Wildlife Control Permit:

Hunter/Trapper's Legal Name	I have read and understood the rules and conditions for the use of this permit listed on the back of this permit and understand that they must be followed.
1.	Signature
2.	Signature
3.	Signature
4.	Signature
5.	Signature

A hunter/trapper is not considered authorized until they have signed the above section and were listed on the application.

This permit shall be in effect from _____, 20____ to _____, 20_____.

Special Conditions: _____

I certify that I understand the provisions of this permit as regulated under city ordinance XXX.XX. I also understand that I must adhere to any state rules or laws pertaining to hunting/trapping as set forth in Chapters 1531. and 1533. of the Ohio Revised Code or rules enacted in accordance with those chapters and am responsible for the actions of those listed on this permit.

(Signature of Permittee)

(Date)

Approved by:

(Signature of Chief of Police, or their designee)

(Date)

Permit Conditions

Permittee Obligations

1. The permittee will be responsible for providing a copy of this permit to anyone operating under this permit. Anyone operating under this permit must possess a copy of this permit as well as any applicable state issued permits while operating under this permit. If requested by anyone, the person operating under this permit must produce this permit upon request.
2. The permittee must submit a log of animals removed under authority of this permit within two weeks of expiration of this permit.
3. The permittee must ensure that all equipment used while operating under this permit must be removed from the area covered under this permit no later than two weeks after the expiration of this permit, including but not limited to tree stands, ladders, bait, and traps.

Hunter/Trapper Obligations

4. Anyone operating under this permit must notify the Police Department prior to going out each day at (XXX) XXX-XXXX.
5. Anyone operating under this permit must have all applicable State of Ohio licenses, permits, and/or tags for the species being managed and must adhere to any Division of Wildlife rules or regulations.
6. Anyone hunting under this permit may only use archery equipment legal as described in ORC 1501:31-15-11 unless otherwise stated in the special conditions section of this permit.
7. Anyone operating under this permit may only operate in the pre-approved areas designated by the Chief of Police or their designee.
8. Unless otherwise noted in the special condition section of this permit, anyone hunting under this permit must shoot from an elevated position of at least 8 feet off the ground.
9. Anyone operating under this permit shall immediately remove carcass and entrails from the property covered under this permit unless the landowner agrees to burial on the property in which case all entrails will be buried or covered so as not to be seen. Animals may not be field dressed in view of the general public.
10. Anyone operating under this permit shall immediately notify the Police Department at (XXX) XXX-XXXX if the animal being controlled under this permit leaves the property covered under this permit.
11. Anyone operating under this permit shall immediately notify the Police Department at (XXX) XXX-XXXX if the animal being controlled under this permit travels onto a public right of way or public property and requires further measures for harvesting. The Police Department will determine if assistance by the police department is required to retrieve the animal.

Chief of Police or Their Designee Authorities

12. The Chief of Police or their designee may deem a property or any portion thereof unsuitable at any time if he/she determines it is in the best interest of the public.
13. A city representative or police designee has the right to enter any property listed on this permit.
14. Pursuant to city ordinance XXX.XX, The Chief of Police or their designee may revoke or suspend this permit at any time if the permittee and/or any person operating under this permit violates any of the listed conditions of this permit or for any other reason deemed appropriate by the Chief of Police.

Agreement and Indemnity Clause

15. By accepting this permit, the permittee and all hunters/trappers that have signed this permit accept full responsibility for conducting all activities in a safe, legal and responsible manner and to indemnify and hold harmless the City of XXXXXXXXX, it's employees, officers, and agents from all liability associated with personal injury and/or property damage, loss and expense, including, but not limited to, damages, legal expenses and cost of defense in any matter arising from the permittee's shooting activities.

Deer Management Plan for the City of Cleveland Heights



December 22, 2021
Geoff Westerfield, Division of Wildlife

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Cleveland Heights Deer Management Goal

To annually assess the impacts of deer in Cleveland Heights and use that assessment to make management decisions to keep the deer population under cultural carrying capacities so that negative impacts from deer are minimized within the city.

Scope and Need for Action

The biological carrying capacity of a deer is the maximum number of animals that an area's native and cultivated resources can support without degradation to the animal's health and the environment within Cleveland Heights over an extended period of time. While this is often an important concept to residents in urban environments, it often isn't the driving factor in wanting a deer population to be managed and in most cases the cultural carrying capacity would be exceeded well before the biological carrying capacity was reached. Cultural carrying capacity is the maximum number of deer that the residents of Cleveland Heights are willing to tolerate. This term is useful when managing deer because it defines when conflicts with deer have exceeded an acceptable level and provides managers with a target for establishing management objectives. This level can be determined by the residents, city council, city administration, or any combination of those. For any given wildlife conflict situation, there will be varying acceptance thresholds by those directly, as well as indirectly, affected. Factors which may influence the cultural carrying capacity include landscape or vegetation impacts, crop or garden damage, threats to public safety such as deer vehicle accidents, presence of deer scat on their property, uneasy feelings having deer close to homes, and personal attitudes and values including the enjoyment of seeing deer in Cleveland Heights. Therefore, cultural carrying capacity is most often the primary driving factor in a city deciding to initiate deer management.

The Division of Wildlife's goal for Ohio's deer program is to provide a deer population that maximizes recreational opportunity including viewing, photographing, and hunting while minimizing conflicts with agriculture, motor travel, and other areas of human endeavor. This is done in large part by working to address the cultural carrying capacity of hunters, farmers, and the general public. Similarly, the City of Cleveland Heights should strive to have a deer population but also ensuring that the conflicts are minimized within the municipality.

There are two cultural carrying capacities that Cleveland Heights will use to manage the deer population: public safety and public attitude. Public safety is most often assessed by determining the need for management based on deer-vehicle accidents within the municipal boundary and goals are determined by the city leaders and administration as to what an acceptable number of accidents are for that municipality. Factors that may dictate this cultural carrying capacity may include, but are not limited to, speed limits throughout the municipality, percentage of types of roadways (ex. highways, residential roads, etc.), non-lethal mitigation techniques (ex. fences, walls, signage, etc.), habitat along roadways, number of roadways in town, etc. Public attitude is most often assessed by a survey of the residents and goals are tied to the results of the survey of the residents. Factors that may dictate this cultural carrying capacity may include, but are not limited to, garden damage, landscape damage, presence of deer scat in yard, comfortability with deer around homes, etc. Cleveland Heights can determine the best management approach by annually assessing public safety, public attitudes, or both with those responses dictating the appropriate approach to manage the deer population according to cultural carrying capacities.

The Division of Wildlife does not support, nor does this deer management plan suggest, that deer should be eliminated from the city but rather they be reduced to a level where they minimize conflicts, both potential and realized, in Cleveland Heights while still providing the opportunity for residents to see deer. This will most likely be achieved when deer population levels are at or below cultural carrying capacities.

Public Safety Cultural Carrying Capacity

The main public safety concern often addressed by city leaders is deer-vehicle accidents. While other public safety concerns may be identified such as potential spread of tickborne disease, attacks on residents or pets, and deer entering residential homes or businesses, deer-vehicle accidents is the most prevalent, real, and manageable of those situations when deer populations increase and therefore the most likely to cause public safety concerns, up to and including loss of human life. Identifying the cultural carrying capacity of deer-vehicle accidents will help determine the best course of action to address public safety concerns. Because the city is responsible for managing roadways and ensuring the safety of its residents, it is the city leaders and administration that typically are the ones that will determine the acceptable carrying capacity for the city. Appropriate management options will be determined by collecting data as described within this section and applying it to the Public Safety Cultural Carrying Capacity Decision Making Model found later in this deer management plan.

Determining number of deer-vehicle accidents

It is important to have consistent data from year to year to assess deer-vehicle accidents trends. For the purposes of this management plan, deer-vehicle accidents will be counted when the following has occurred:

- An accident report was filed with the police department
- A caller calls to report hitting a deer, but no report filed
- Police staff dispatch an injured deer presumed to have been hit by a car

While deer-vehicle accidents can be a relatively easy thing to quantify using the above criteria, it doesn't always account for all of the deer that are hit by vehicles on the roadways. Sometimes lower speed limit roadways can contribute to situations where not enough immediate trauma to the deer occurs leading to the deer not dying on scene. Therefore, a fourth criteria will be utilized to better assess the level of deer vehicle accidents in Cleveland Heights:

- Removal of a deer carcass by city personnel (ex. service department, animal control, etc.) determined to likely be from a deer-vehicle accident

A deer carcass picked up will not be counted if it was already accounted for in the initial three categories or if: 1) the deer is presumed to have died from a sickness (ex. skinny, Epizootic Hemorrhagic Disease, etc.), or 2) when the deer likely died from a non-vehicle related injury (ex. infection, fight with another deer or animal, tooth impaction, etc.) which typically is easily determined by a simple visual assessment of the deer.

The data for deer-vehicle accidents will be summarized monthly by totaling all four of these categories. The Cleveland Heights administration will ensure that all procedures are in place to consistently record these types of deer-vehicle accidents. This will be accomplished by either a Microsoft Access database utilized by the dispatchers or a Microsoft Excel sheet (Figure 1).

Regardless of the method of recording, only one method of recording will be utilized and consistency of reporting will be maintained.

2020		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Accident - Report Filed												
	Accident - No report filed												
	Deer Dispatched												
	Service Dept Pickup												
	Total												
2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Accident - Report Filed												
	Accident - No report filed												
	Service Dept Pickup												
	Total												
2018		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Accident - Report Filed												
	Accident - No report filed												
	Deer Dispatched												
	Service Dept Pickup												
	Total												
2017		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Accident - Report Filed												
	Accident - No report filed												
	Deer Dispatched												
	Service Dept Pickup												
	Total												

Figure 1-Sample deer vehicle accident data sheet

Locations of deer-vehicle accidents

The location of the deer for each of type of deer-vehicle accident will be recorded to the closest address possible for where the incident occurred. This location information can be useful to identify areas where, and to what level, lethal deer management is needed within various parts of the municipality. Additionally, this location information can be useful in addressing non-lethal aspects of deer management in Cleveland Heights which are discussed later in this deer management plan.

Assessing management techniques

Because often deer management decisions must be made by September of each year, the city will evaluate the number of deer-vehicle accidents by September 15th annually. Unfortunately, the peak of deer-vehicle accidents typically occurs from October through December. However, using statewide data for deer-vehicle accidents from the Ohio State Highway Patrol (Figure 2), the city can easily estimate the expected level of annual deer-vehicle accidents by estimating that the number of deer-vehicle accidents from January through August will account for approximately 48% of the total deer-vehicle accidents.

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
# Deer Vehicle Accidents	7309	5678	5922	5334	7524	6400	4423	3452	4531	13872	20999	10107	95551
% of Total	8%	6%	6%	6%	8%	7%	5%	4%	5%	15%	22%	11%	100%
Cumulative %	8%	14%	20%	25%	33%	40%	45%	48%	53%	67%	89%	100%	

Figure 2-2015-2019 Deer Related Accidents in Ohio; Ohio State Highway Patrol

This expected number of annual deer-vehicle accidents can then be utilized to determine whether deer population reduction or deer population maintenance techniques are required for that fall/winter.

Public Attitude Cultural Carrying Capacity

While assessing the public safety cultural carrying capacity within Cleveland Heights primarily falls upon the city leaders and administration, the Cleveland Heights residents are the primary decision makers for the cultural carrying capacity on land not owned or managed by Cleveland Heights. In general, as issues caused by deer increase, such as landscape damage, public attitude for decreasing a deer population also increases. Therefore, understanding the residents' attitudes towards the deer population will help determine what management techniques should be utilized. Public attitude will be assessed through an annual citizen survey with management techniques determined when the resident attitudes reach an unacceptable level. This level will be determined by Cleveland Heights council and/or administration. Appropriate management options will be determined by taking data collected within this section and applying it to the Public Attitude Cultural Carrying Capacity Decision Making Model found later in this deer management plan.

Conducting an Annual Citizen Survey

In order to assess the current cultural carrying capacity of the residents and allow the city to determine the appropriate management techniques and, if necessary, the number of deer needing to be removed, an annual citizen survey will be conducted. The survey results will also assist in identifying where deer need to be removed strategically throughout the city based on the respondents' address. The survey will be widely publicized to get as much resident participation as possible and available for residents to take from July 1st to August 31st each year. Online survey tools (ex. Survey Monkey) will be utilized to the extent possible. In situations where a resident doesn't have access to a computer or needs assistance taking the survey, city staff will assist the resident by inputting their responses for them.

Questions for Annual Citizen Survey

While the survey can be used to gather a variety of information deemed pertinent to the city, the following questions will at a minimum be included in the survey. However, the city will add any additional questions they feel is important to understand various aspects of public attitude cultural carrying capacity in Cleveland Heights for that year.

1. To identify where deer are causing problems and ensure each property only responds once,
 - a. What is your address, house number and street, in Cleveland Heights (ex. 1234 Smith St.)
2. The deer population in Cleveland Heights needs to be: (check only one)
 - a. Decreased
 - b. Kept at the current level
 - c. Increased

Understanding Population Dynamics

Population Index vs. Actual Population

An initial population estimate is important in being able to determine the number of deer, if any, that need to be removed annually. However, knowing the exact deer population is not necessary for managing deer. A population index is simply a representation of the deer population in the city and should not be confused with the actual deer population. In 2019 the [REDACTED] conducted a deer survey of Cleveland Heights and determined the population index to be [REDACTED] deer.

Understanding Recruitment Factor

Often people will want to try to estimate the deer population by doing an initial count then try to determine all factors that would reduce the deer population annually (ex. deer-vehicle accidents, death by old age, disease, emigration, etc.) followed by all factors that would increase the deer population annually (ex. births, immigration, etc.). However, the multitude of factors that affect what the deer population does in Cleveland Heights is highly variable and dependent on many factors (ex. whether an adjacent city removes deer, changes in fawning potential, habitat, road density, etc.) that in many cases are hard and very labor intensive to quantify. In addition, the effects of those variables will vary from one city to the next. To address this, a simple recruitment factor number can be utilized which takes into account all factors.

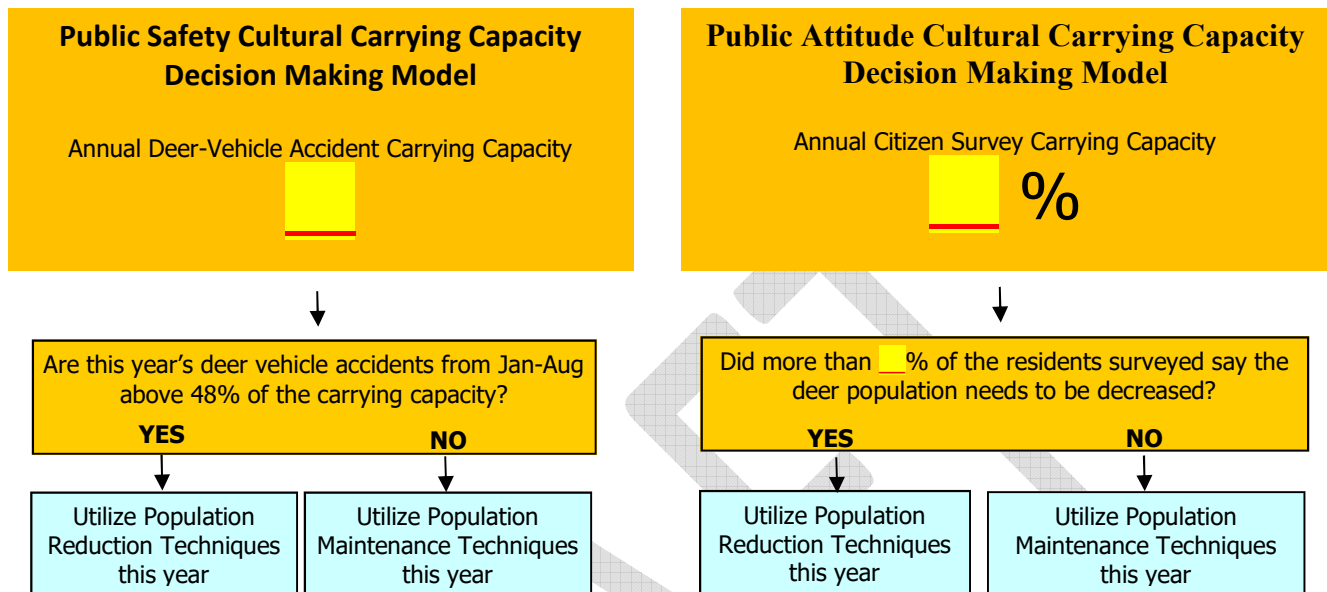
Recommended Deer Removals

Figure 3 is an estimated number of deer removals needed to meet the cultural carrying capacities and get the deer population to a maintenance level. Because this is the first effort for deer management in Cleveland Heights, a general recruitment factor of 1.3, a similar recruitment factor for other cities at the initial stages of deer management, should be viewed as a “starting point”. As management continues into years two through five, potential deer removals identified in the chart below may need to be adjusted in order to meet the goals for each cultural carrying capacity identified. The adjustments will be made by looking at removal numbers in relation to its effect on the data collected for each cultural carrying capacity. It is expected that after year five, a minimal number of deer will need to be removed annually to maintain the deer population in Cleveland Heights. However, as noted earlier the needed removals each year will be dictated by the data collected for each cultural carrying capacity.

Management Year	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
Estimated Population Index	280	364	395	414	353	295	280
# Deer to be removed	0	60	50	120	85	40	40
Remaining Population Index	280	304	345	294	268	255	240
Recruitment Factor	1.3	1.3	1.2	1.2	1.1	1.1	1.1

Figure 3 – Estimated annual deer removals

Decision Making Process



Managing for Both Cultural Carrying Capacities

Managing for both cultural carrying capacities is the preferred approach within Cleveland Heights; public safety and public attitude. Making management decisions using public safety and public attitude takes into account both of these primary deer related concerns within Cleveland Heights. The chart below helps in determining the appropriate course of management action when making management decisions based on both of these cultural carrying capacities. Using the Cultural Carrying Capacity Decision Making Models, if either response is “Yes”, meaning that either public safety or public attitude are above cultural carrying capacity, then the appropriate action will be to utilize population reduction techniques for the year. Only when both responses are “No”, meaning both public safety and public attitude is at or below cultural carrying capacity, would the appropriate management action be to only use population maintenance techniques for the year.

		Public Safety	
		Yes	No
Public Access	Yes	Population Reduction Techniques	Population Reduction Techniques
	No	Population Reduction Techniques	Population Maintenance Techniques

Population Reduction Techniques

The purpose of the following population reduction techniques are to get the deer population to cultural carrying capacities as quickly as possible. One, or both, of the following techniques may be utilized in order to accomplish that.

Widespread targeted deer removal

The most efficient and quickest way for deer population reduction is through targeted deer removal, sometimes referred to as “sharpshooting”. As of January 2021, eight (8) communities in Cuyahoga County utilize targeted deer removal. When used as a population reduction technique, its use needs to be done widespread throughout Cleveland Heights on both public and private properties in as many locations as possible. Removals will most likely be done through the use of high-powered rifles over baited areas. Because there are often many logistical issues that must be addressed when this technique is used, some of the following specifics for its use include, but are not limited to, the following:

State Permit Required

This technique requires the city to annually submit a request for a special permit from the Division of Wildlife.

Sites for Removal

In order for deer to be efficiently and effectively removed, deer removals may need to be done on both private and public property so potential sites will include both private and public properties. Residents willing to allow removals on their property may submit their names to the city, however whether removals will be done on that property will be dependent on whether the city determines that deer can safely be removed on that site. Efforts to gain permission will be made for any public property not owned/managed by the City of Cleveland Heights that is determined that deer could be removed safely from that property.

As long as removals can be done safely, any city-owned/managed public properties will be made available.

In addition, the number of sites is dependent on many variables (ex. deer movement, amount of green space, deer population density, etc.). It is important to note that the more sites made available will increase efficiency, flexibility for those killing the deer, and ultimately limit costs for the removals.

Disposition of Deer Removed

All efforts will be made to receipt any deer removed to a resident. The City of Cleveland Heights will solicit residents and maintain a list of people that are willing to take possession of any deer removed under management actions within the city. The list should contain the number of names equal to at least 75% of the planned number of deer to be removed. However, if there are not enough residents willing to accept a deer, the city will accept the names of non-residents to be on the list. The city may also utilize food donation programs, if needed, to ensure that the meat from deer removed does not go to waste.

Data Collection of Deer Removed

The City of Cleveland Heights will collect at a minimum the following information for each deer removed as part of any targeted deer removal:

- Age of the deer in the following categories; ½ year old, 1 ½ year old, 2 ½-3 ½ year old, and 4 ½ and older
- Sex of each deer
- Name of the person who was receipted each deer
- Location of each deer

This information, and any additional information requested on the permit from the Division of Wildlife, will be submitted as stipulated on the permit. However, the city may collect additional information for each deer as it deems necessary.

Budget Planning

The quicker the city gets the deer population to a maintenance level, the cheaper the overall cost of the deer management program. Using the recommended deer removal numbers described in the Population Dynamics section will allow the city to allocate and plan for required expenses associated with this technique. While the number of deer removed goes down over time, the cost per deer will typically increase slightly each year as deer population decreases and more effort per deer is required. For that reason, the city will obtain a quote for the first year of operations and then utilize that quote for budgeting purposes for all five years of the operations. If actual expenditures for years one through three are substantially lower than the quoted amount, the city may be able to reduce the budgeted amount for years four and five.

If food donation programs are used the city will need to budget additional funds to cover the deer processing costs and determine any additional logistics regarding delivering the deer with the cooperating deer processor.

Archery Hunting

An effective way to minimize costs for deer population reduction is by incorporating archery hunting as an additional management tool to targeted deer removals. As of January 2021, seventy-one (71) communities in Ohio, twenty-one (21) of which are in Cuyahoga County, allow

archery hunting. The amount of hunting occurring in the city will dictate its effect as a population reduction technique. However, done in conjunction with widespread targeted deer removals it can help reduce costs associated with those removals.

State Permit Required

There are not state permits required to allow archery hunting. However, hunters are required to follow all State of Ohio regulations pertaining to hunting.

Sites for Removal

An application for a city-issued permit to allow hunting will be made available to residents wishing to apply. Permits will only be issued once the city is satisfied that the location(s) submitted in the application can be hunted in a safe manner. Hunters will be required to follow a strict set of rules outlined on the hunting permit and must abide by all State of Ohio Division of Wildlife regulations.

Disposition of Deer Removed

In most situations the hunter, or property owner, will keep the deer for human consumption. Because of this the city will not have any need for dealing with the disposition of deer removed. If requested by the hunter or property owner, the city will make attempts to help identify any residents that may be interested in a deer killed that the hunter or property owner won't use. However, the hunters are also encouraged to utilize venison donation program or local charities as needed.

Data Collection of Deer Removed

Each hunter will be required to notify the city of each deer removed as outlined in the city deer hunting permit so that the city can track the usage of the permits in Cleveland Heights. It will also allow the city to be able to assess its impact on the overall deer population.

Budget Planning

Because the hunter and property owner bear all the operational costs of this technique, the only costs associated with this technique are in staff time to assess properties listed on applications. As needed, the city may include an application fee to offset any planned costs for these assessments.

Population Maintenance Techniques

The following techniques may be utilized in order to maintain a deer population at, or below, cultural carrying capacities.

Archery Hunting

All of the same logistics apply to archery hunting as a population maintenance technique as when it is utilized as a population reduction technique (see Population Reduction Techniques section).

Isolated Targeted Deer Removals

While the goal of widespread targeted deer removals is to quickly reduce a deer population because the deer population is over cultural carrying capacities, isolated targeted deer removal will be utilized when either:

- 1) the use of other population maintenance techniques are not able to be utilized, or
- 2) the use of the other population maintenance techniques are not adequately addressing the deer population in a particular area of the city.

When targeted deer removals is utilized as a population maintenance technique, some of the logistics differ from its use as a population reduction technique:

State Permit Required

This technique requires the city to annually submit a request for a special permit from the Division of Wildlife.

Sites for Removal

Specific sites for isolated targeted deer removals will be determined based on areas where deer densities remain elevated. While widespread targeted deer removals require as many sites as possible, isolated targeted deer removals will only consist of four or less sites throughout the city. These sites will be public or private property where use of other

population reduction techniques is not feasible either due to safety concerns or other logistical issues.

Disposition of Deer Removed

Same as when used as a population reduction technique (see Population Reduction Techniques section)

Data Collection of Deer Removed

Same as when used as a population reduction technique (see Population Reduction Techniques section)

Budget Planning

The number of deer needing removed will be limited since it is a population maintenance technique. Because of this, the overall costs, when compared to widespread targeted deer removal, will be less. However, the cost per deer will be expected to be higher than the cost per deer when removed as part of widespread targeted deer removals.

Fertility Control

Research is constantly being done to evaluate the effectiveness of the fertility control and its' use as a feasible management tool in an urban setting such as Cleveland Heights. Fertility control is likely most effective once the deer population in Cleveland Heights is below the cultural carrying capacities. It is important to understand that it is unlikely that any fertility control could be utilized as a stand-alone population maintenance technique and will likely need to be used in conjunction with other population maintenance techniques. This is especially true when deer can immigrate in from adjacent communities/areas. Cleveland Heights does not have any hard barriers (ex. fences, walls, etc.) to restrict deer movements, so it is expected that deer are immigrating into Cleveland Heights annually at some level. The amount of immigration can be variable and can vary from one year to the next. Factors such as food availability, both human-influenced and natural, as well as the deer management techniques used in adjacent communities/areas will likely influence the amount of immigration.

State Permit Required

Currently all deer fertility operations in Ohio require a Scientific Collecting Permit from the Ohio Division of Wildlife and are considered for research purposes only.

Evaluation of Feasibility

That evaluation of a feasible fertility control option should consider if all the following conditions are met before further evaluating if the fertility control is to be considered for use:

1. There is minimal immigration/emigration of the deer.
2. The use of the fertility control is accepted by the majority of the residents.
3. The city can allocate the finances needed to do the fertility control.
4. The fertility control is federally approved for application to free-ranging deer populations.
5. The fertility control will provide multiyear (5+ years) efficacy.

6. The fertility control leaves no residue in the meat (i.e., meat derived from treated animals should be safe for human consumption according to applicable regulatory agencies, and safe for consumption by other animals).
7. The fertility control will have limited behavioral and physical impacts on the deer, both those treated and untreated.

Once all the conditions above are met and it is determined that fertility control is a feasible option, the City of Cleveland Heights would be able to propose a research project proposal to the Ohio Division of Wildlife.

Budget Planning

If the research proposal is approved, the city will set funds aside annually within the municipal budget for the fertility control. It should be expected that the costs for the first few years may be high. After the majority of deer (likely 90% or greater) are rendered infertile, the city will need to still budget annually, in perpetuity, for maintenance costs associated with addressing any deer that immigrate into the city.

Deer Damage Permits

The goal of a Division of Wildlife deer damage permit is to target specific deer causing specific damage at the time of the year when the damage is occurring. In Cleveland Heights, this damage is often to landscaping during the summer months when archery hunting is not an option to the property owner. However, these permits do not supersede any city laws, ordinances, or rules. Therefore, any property owner receiving a deer damage permit from the Division of Wildlife will be required to fill out a City of Cleveland Heights application for archery hunting and all follow all the same rules that would apply to someone archery hunting in the city.

State Permit Required

Deer damage permits are issued by the Division of Wildlife to a specific property owner. Those wishing to apply for a permit can do so on the Division of Wildlife website.

Sites for Removal

Once the resident has obtained a permit from the Division of Wildlife, they must apply for a city-issued permit for hunting. Permits will only be issued once the city is satisfied that the location(s) submitted in the application can be hunted in a safe manner. Hunters will be required to follow a strict set of rules outlined on the hunting permit and must abide by any additional stipulations outlined on the Division of Wildlife Deer Damage Control Permit.

Disposition of Deer Removed

In most situations the hunter, or property owner, will keep the deer for human consumption. Because of this the city will not have any need for dealing with the disposition of deer removed. If requested by the hunter or property owner, the city will make attempts to help identify any residents that may be interested in a deer killed that the hunter or property owner won't use. However, the hunters are also encouraged to utilize venison donation program or local charities as needed.

Data Collection of Deer Removed

Each hunter will be required to notify the city of each deer removed as outlined in the city deer hunting permit so that the city can track the usage of the permits in Cleveland Heights. It will also allow the city to be able to assess its impact on the overall deer population.

Budget Planning

Because the hunter and property owner bear all the operational costs of this technique, the only costs associated with this technique are in staff time to assess properties listed on applications. As needed, the city may include an application fee to offset any planned costs for these assessments.

Non-lethal Management Techniques

Any successful deer management program will incorporate non-lethal management techniques. There are various techniques that will be utilized, both addressing the public safety cultural carrying capacity and the public attitude cultural carrying capacity.

Public Safety

Deer Crossing signage

Deer movement within a municipality can vary over time due to things such as increased urban development, changes in green space, food availability (both natural and human-based), changes in roadway conditions (ex. speed limit, number of lanes, roadside barriers), etc.

The location of the deer for each of type of deer-vehicle accident in conjunction with an assessment of current habitat conditions in the city can help dictate appropriate deer crossing signage within the municipality. It can also help identify areas where:

- New deer crossing signage is needed
- Current deer crossing signage is no longer needed
- New barriers (fence, sound barrier walls, etc.) need installed
- Maintenance of current barriers is required
- Roadside vegetation along the roadway needs managed

Prior to January 2023, the Division of Wildlife will do an assessment of deer crossing sign locations to determine probable deer crossing areas based on habitat within the city. The City of Cleveland Heights will provide a map of the current locations of the deer crossing signs in Cleveland Heights to the Division of Wildlife by January 2022.

Communication to residents

As noted in Figure 1 earlier in this deer management plan, November is the peak of deer-vehicle accidents in Ohio. As such, each October the city will do public outreach to remind residents to be mindful of deer crossing the roads in Cleveland Heights. As needed, the city may request assistance with developing the best content to be communicated to the residents.

Public Attitude

Education for Damage Mitigation

While many online resources are available to educate residents on ways to mitigate deer damage on their property, it can be time consuming for the resident to locate accurate information. In addition, some information online may not be factual or pertinent to areas like Cleveland Heights. The city will work with the Division of Wildlife to provide content on the city's website on some best management practices for ways residents can mitigate and minimize damage on their property.

Workshops

As needed, the city will request assistance from the Division of Wildlife for workshops regarding ways the residents can deal with deer issues on their property. The Division of Wildlife, to the extent possible, will fulfill these requests.

Cleveland Heights

Traffic Accident Report

01/01/2014 Through 01/01/2022

Report #:	Location:	Date:	Time:	Badge:
1406476	FAIRMOUNT BLVD /3041	10/25/2014	20:34:39	DRS
1503173	WINDSOR RD /MONTFORD RD	06/12/2015	22:56:00	DXE
1506932	MONTICELLO BLVD /ENGLEWOOD RD	12/25/2015	17:00:00	DXE
1703387	BELVOIR /671219	06/25/2017	20:39:00	JXM
1703482	OAKRIDGE DR /1276	07/01/2017	05:42:00	MGT
1704959	MAYFIELD RD /2652	09/12/2017	11:58:00	MJD
1705866	MAYFIELD RD /3020	10/28/2017	14:58:31	WGR
1801367	WARRENSVILLE CENTER RD /MAYFIELD	03/24/2018	20:29:00	NCC
1802529	MONTICELLO BLVD /3543	05/25/2018	18:34:55	8577
1805015	QUILLIAMS RD /939	10/05/2018	00:44:00	8557
1805071	LEE RD /1754	10/08/2018	01:32:01	8561
1805991	MONTICELLO BLVD /3286	12/01/2018	00:27:23	8530
1902677	MONTICELLO BLVD /BOLTON ROAD	06/11/2019	21:47:00	8549
1902860	MONTICELLO BLVD /3356	06/22/2019	00:52:38	8582
1903859	MAYFIELD RD /3717	08/20/2019	13:14:07	8578
1905498	S TAYLOR RD /DELLWOOD RD	11/25/2019	08:34:19	8561
2003639	TAYLOR /30 SEVERANCE	10/13/2020	14:03:00	8649
2101606	N PARK BLVD /3301	05/08/2021	14:46:35	8559
2103085	HARTCOURT /N PARK	09/03/2021	16:19:15	8549
2103305	CEDAR RD /GOODNOR RD	09/19/2021	23:18:08	8538
			Total:	20

Aerial Infrared Deer Count Report

Eastern Wildlife Management Partnership

26 January 2015

A large 26,837-acre deer count area was the subject of an aerial infrared (IR) deer count flight on three nights in late-December and is composed of the eight northeastern Ohio jurisdictions named below. The IR imaging conditions were very good during the three flights. Additional details can be found in the analysis notes below.

This report package includes this written report, multiple DVD+R discs containing video of the raw infrared imagery of the count areas, a map printout of the deer count and dispersion within and near the count areas and a copy of the maps in .jpeg format on CD-ROM. Google Earth KMZ files of the boundaries of the jurisdictions and the number and location of the deer and possible deer sightings are also included. Deer and possible deer are noted on the map by dots of different colors. Deer are magenta and possible deer are bright green. A possible deer is defined as an animal that is thought to be a deer but whose infrared signature is somewhat weak or otherwise difficult to plainly distinguish it as a deer. Groups of deer are sometimes indicated by one dot with an annotation of the number of deer in that group. The dots representing animals cover an area approximately 60 feet in diameter on the maps so they can be seen and printed easily.

Results:

LOCATION	Acres	<u>DEER</u>					
		Inside/Possible			// Outside/Possible		
Pepper Pike	4595	265	/	4	//	37	/ 0
Mayfield Heights	2675	43	/	0	//	43	/ 5
Lyndhurst	2838	41	/	3	//	10	/ 0
University Heights	1168	26	/	4	//	0	/ 0
Shaker Heights	4055	57	/	3	//	14	/ 0
Beachwood	3357	157	/	4	//	42	/ 0
South Euclid	2980	56	/	1	//	20	/ 4
Cleveland Heights	5169	48	/	0	//	28	/ 1
Totals	26,837	693	/	19	//	194	/ 10

Analysis Notes

Night 1 - Mayfield Heights and Pepper Pike

12/25/2014

The aerial infrared imaging flight for the eastern portion of Mayfield Heights (east of I-271) and Pepper Pike was conducted between 2130, 25 December and 00041, 26 December 2014. Imaging conditions were very good. Small animals were visible in the imagery on the ground and in trees in the count area. Surface winds were from the south-southwest around eight to nine knots during the count with moderate turbulence, later subsiding to minimal, at the imaging altitude of 1500 feet above ground level. The ground was clear of snow and the temperature was 36-37 degrees Fahrenheit. The sky cover was initially overcast at 3500 feet and later became clear.

Night 2 - Beachwood, Shaker Heights, University Heights, Cleveland Heights

12/28/2014

The flight over these jurisdictions occurred on the night of 28 December between the hours of 2250, 28 December and 0315, 29 December 2014. Conditions for the count were very good. Small animals were visible in the imagery: an indicator of good imaging conditions. Winds at the surface were from the west-northwest at 11 knots, shifting later to northwest at 8 knots, while winds at altitude (1500 feet above ground level) were light from the southwest. There was very light turbulence at the imaging altitude. Temperatures were 35-36F during the flight. The sky was overcast at 3400 feet and the ground was free of snow.

Night 3 - Mayfield Heights, Lyndhurst, South Euclid, Cleveland Heights**12/29/2014**

The flight over the western portion of Mayfield Heights, Lyndhurst, South Euclid and the northern portion of Cleveland Heights (and a tiny corner of northwest University heights) occurred on the night of 29 December between the hours of 0035 and 0505, 30 December 2014. Conditions for the count were again quite good. Some small animals were visible in the imagery. Winds at the surface were initially calm, then from the north at 10 knots, while winds at altitude (1500 feet above ground level) were light from the north. There was no turbulence at the imaging altitude. Temperatures diminished from 28 to 20F during the flight. The sky was clear and the ground was free of snow.

Mapping:

If the deer count number and dispersion information is destined for a Geographic Information System (GIS), the KMZ files provided should pose no problems of incorporation. Otherwise, the KMZ's may be opened directly in Google Earth.

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Equipment:

This count was accomplished with a single-engine Cessna 182 airplane and using a high-resolution Mitsubishi M-600 thermal imager oriented 'looking' straight down through a camera hole in the belly of the airplane. The thermal imager NTSC video output is routed through a video encoder-decoder (VED) that labels the video with a continuous stream of GPS-derived position, time, date, speed and altitude information. A guide to the alpha-numeric annotation seen on the accompanying videotape may be found at the end of the specification block below. A bar code of the same GPS alphanumeric information is recorded on the far left side of the imagery although it may not be within the visible portion of a conventional TV screen. The bar-coded information is used by the VED during video playback and analysis. The annotated video imagery is recorded with a Sony MiniDV digital video cassette recorder using digital videotape capable of storing 500 horizontal lines of video information (over 50% more than the 330 lines found on conventional VHS videotape.) The mapping program used for marking the count area borders and laying out the flight lines is DeLorme's GPS Link II and MapExpert version 2.0.

Mitsubishi M-600 thermal imager specifications:

Detector	Platinum Silicide Schottky-Barrier IRCSD
Number of Elements	512 X 512 pixels
Detectable Wavelength Band	3 to 5 microns
Lens	Infrared, polarized f50 mm, F 1.2
NETD (Noise Equivalent Temperature Differential)	0.08 degrees C blackbody at 80.6 deg. F. (27 deg C) using f50 mm, F 1.2 lens
Field of View (using f50mm lens)	14 degrees horizontal X 11 degrees vertical
Field Time	1/60 second
Cooling Method	Stirling Cycle cooler
Image Display	Monochromatic, 256 gray levels
Video Output	RS170 video output (1 BNC port, 75 ohms)

Annotation Guide:

Date	Time	Altitude MSL
MAR20/99,0030:56.213,-05,9/00,02157F		
0111,3910.860N,08444.294W, 74KTS,092		
Latitude	Longitude	Grnd Speed Course

Flight Methodology:

The counts are flown at an average altitude of 1500 feet above ground level. The camera view directly below the airplane from that altitude is 375 feet wide on the ground surface. Flight lines are spaced an average of 325 feet apart to allow for image overlap and 100 percent coverage of the study area. A 'bread crumb' feature of the mobile mapping software used for the flight allows me to track my flight path and helps guide me along predetermined flight lines to assure complete coverage. The recording device is normally paused during the turns outside the study area; hence the tape appears to jump from the end of one run to the beginning of the next.

Analysis Methodology:

After the flight, I analyze the videotape using a TV monitor and a computer monitor. As the videotape plays, the VED decodes the bar-coded GPS signal that was received from the GPS during the flight. The VED recreates the original GPS signal and sends it to the computer so the mobile mapping software 'thinks' it is receiving a live signal. The mapping software shows the moving position of the airplane superimposed on a street map on the computer screen while the recorded infrared imagery of the area below the airplane is visible on the TV monitor. The GPS updates the airplane position once per second throughout the flight and at the same rate during the post-flight analysis.

To count the deer, I watch the entire tape, pausing and playing it backward and forward at regular speed and in slow motion, as necessary. Generally, for each hour of tape, three or more hours of analysis and reporting are required to complete the count. As I view the tape and note the deer, I mark each one as a dot on a computer version of the maps accompanying this report. When I have viewed the entire tape, I count the dots on the map to find the number of deer in the count area. If I note large domestic animals on the computer map, I mark them with a different color dot. In these counts, red dots denote deer, gray or yellow dots (if any) denote possible deer or other unknown animal similar in size to a deer but apparently not a deer and blue dots (if any) represent domestic animals such as cattle, sheep or horses. These animals are always much warmer and in the case of horses and cattle, substantially larger than any deer.

Deer usually appear as a fairly bright white dot or narrow line (similar to a grain of rice) in the infrared imagery. In this imagery, white and lighter shades of gray represents warmer objects while black and darker shades of gray are cooler. Other white (warmest in the scene) objects that are common are roads and pavement that retain latent heat from sunshine during the day, man hole covers, street lights, house lights, fires, furnace stacks on houses, car engines that are running or have run recently, groundwater seepages, puddles, ponds, streams, rivers and large rocks and boulders in the woods. Other animals in the picture are often white or bright. Domestic animals are commonly very bright—hotter than deer, which have highly insulating coats.

In order to count deer with a high degree of confidence and accuracy, several factors have to be taken into account. Among them are deer infrared signatures, background infrared signatures, deer behavior and location. Questions I am commonly asked, and the answers I give, include the following:

Q. How do you know you are not counting the same deer twice?

Given:

- deer are not disturbed by a light plane flying more than a quarter of a mile above them,
 - deer often congregate in groups of two or more—up to 20 or more in extreme cases,
 - deer generally move very slowly as they graze, congregate or rest,
 - deer live and act according to generally well known behaviors,
 - I fly along a well documented flight path with an 'infrared view' of a known area below the aircraft that is recorded on videotape.
- A.** With the help of the moving map program, I can place dots representing deer on a map in their respective positions and orientation to one another quite accurately, particularly when referring to the nearby streets, intersections, rivers and streams that may be in view or recently in view on the videotape. As I analyze the tape, becoming quite familiar with the 'neighborhood' of the count area (houses, roads, hills, streams, rivers, golf courses, trails, etc.) and place the dots on the map, I recognize specific deer and groups of deer as I pass them a second and sometimes third time. For example, I may see and place a group of three deer/dots in an equilateral triangle near a trail a few seconds after passing a particular road. In the case where I first saw them they may have been on the right side of my screen. When I fly the next adjacent run, thanks to overlapping imagery, they may appear on the extreme left side of the screen. Very often, they will be in the same spot or not far from it, in the same or similar 'formation' five, ten, fifteen or even thirty minutes later. If I fly along and see a lone deer in the forest, it will still be there in the same general area when I make adjacent passes. On occasion, I will fly over a group of deer in an area, and on subsequent passes, I will see an additional deer that I did not see earlier because it may have been out of the picture, too close to another deer

(appearing larger than normal—but not counted as two) or it may have been obscured by a tree or foliage on the first pass. In those cases, I add the dot to the map. In uncommon cases where deer are moving quickly, I will look for them elsewhere in the direction they were originally seen moving. If I later see deer in the vicinity and cannot recognize them as the same group, I have to make a judgment whether to count them or not.

Q. How do you know what you are seeing and counting are deer and not some other animal?

Given:

- there is usually a sizable quantity of deer in the area in which I am flying the deer count,
 - there are other wild and domestic animals in the same area, usually in smaller numbers,
 - deer don't climb trees,
 - deer are somewhat 'brazen' in their occupation of human communities,
 - domesticated animals are often corralled, fenced in, densely grouped or tethered,
 - deer are notably larger than foxes, raccoons, skunks and many dogs and smaller than cows and horses,
 - deer have a variety of apparent temperature ranges/thermal signatures but are nearly always cooler than common domestic animals (dogs, horses, cattle, sheep),
 - skunks, raccoons, and foxes appear to have warmer apparent body temperatures than deer and often look like a bright pinpoint of light in the woods, whereas a deer is larger, usually cooler and with less distinguishable edge contrast with their surroundings (i.e., they look slightly 'fuzzy' around the edges).
 - deer congregate more and move less, and generally less rapidly, than smaller nocturnally active wild animals such as skunks, raccoons, coyotes and foxes.
- A.** Experience, practice and experiments with the Michigan Department of Natural Resources and others in counting and identifying a variety of captive animal types have given me high confidence in identifying deer in their normal forest, rural and suburban habitats. The deer that I have difficulty identifying and counting are those that are partially hidden from view in evergreen vegetation or exhibit such a low apparent temperature (thermal signature) that I cannot see them or distinguish them sufficiently enough to identify them as deer, or even as animals. I do not count 'white dots or blobs' that I do not have a strong feeling are deer. This includes deer bedding areas in light snow cover that contain melted through areas to the ground that approximate deer thermal signatures. Close examination of most infrared deer count videotapes will reveal to the viewer quite a few animals in trees or on the ground that do not appear on the deer count map. These animals are most likely to be something other than deer. My deer counts are generally considered a minimum definite number, as opposed to a maximum. Some deer will go undetected in nearly every environment.

Q. How accurate is the count?

- A.** I don't know. I believe an average of 90% is in the ballpark, perhaps better for very good and excellent conditions, sometime worse. Conventional methods (deer-car collisions, spotlighting, pellet counts) are considered to be accurate within 30 to 40 percent—not a high number. In this method, we are looking at 100% of the area in question and under good conditions all active deer not hidden from view should be seen and counted with infrared.

Note: I will retain the original digital video tape of this deer count for at least one year.

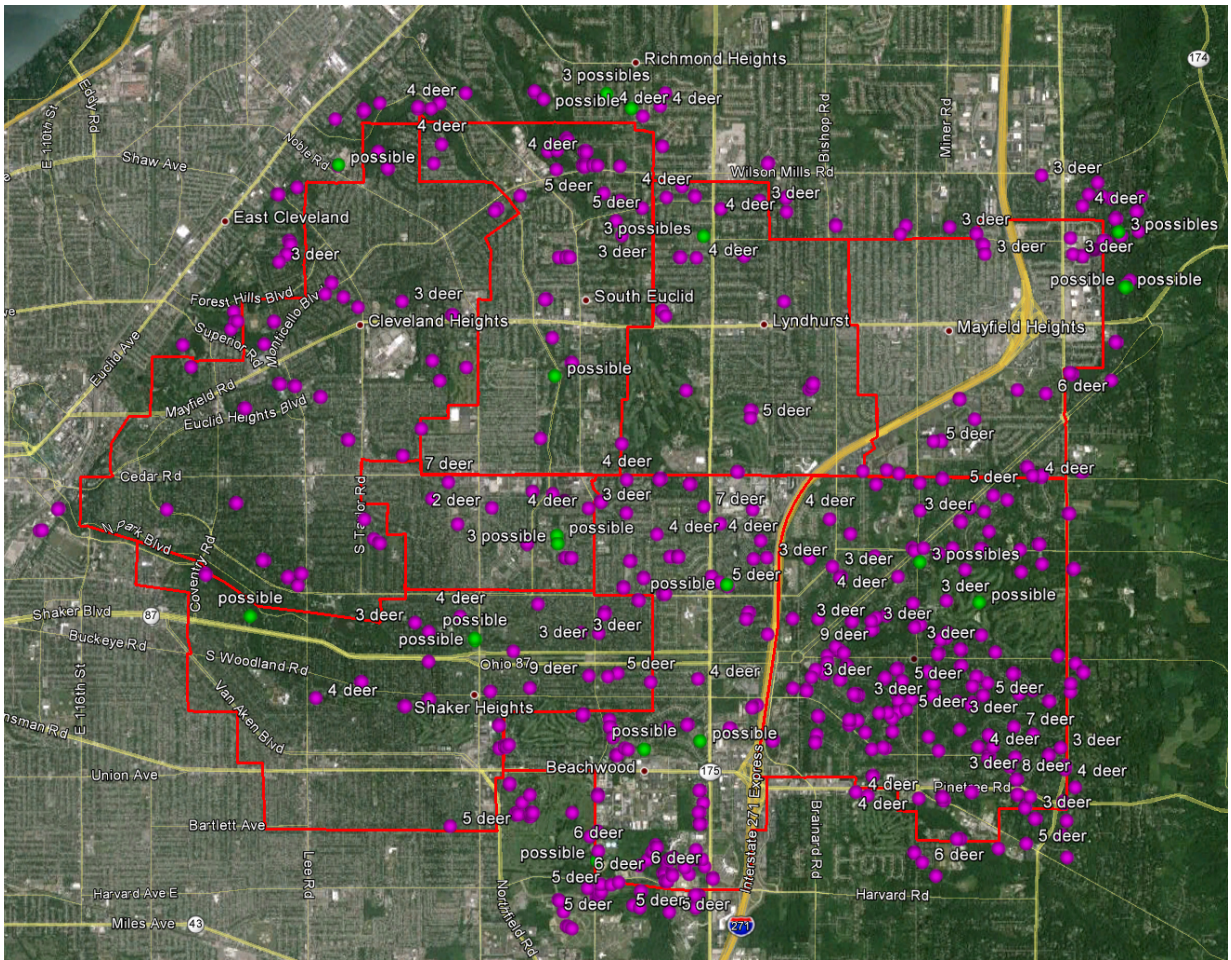


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A particularly vivid image of seven deer in a neighborhood backyard near the corner of Hilltop Drive and Orchard Way, in northeast Beachwood



Overall distribution of deer in the EWMP



FROM: Jim Posch

TO: Mayor Kahlil Seren; Tony Cuda

DATE: 7/16/2024 11:36AM

SUBJECT: Council's Safety and Health Committee reviewing our role

Good Morning Mayor:

The Council's Safety and Health Committee is reviewing our role and priorities as detailed below in my following notes. Our next meeting is at 4:00pm on the July 30th. How can we best collaborate with your Administration on these? Are there things we can add to this list that are your staff's priorities? Does it make sense to discuss these items prior before the committee meets, I assume with the appropriate members of your staff?

Safe Streets

- Nice website [<https://www.safestreets4ch.com/>] - seems like a great work effort thus far! Can we get an update - when would that be appropriate?
- Regarding the Heights Regional Active Transportation Plan (ATP). This is in the public comment period. How can we assist in this effort? Does it make sense to ask the Transportation and Mobility committee to review this and provide feedback as part of the public comment? Can we help by assisting with this?
- Things specific to Noble, Lee and Cedar/Fairmont - are there other active things we are doing? Such as the yellow plastic dividers on Lee?

Lead Safe Status

- How many rental units were targeted in Zone 1?
- How many landlords have received Lead Safe Certificates of Compliance as of today?
- How many tenants have been relocated to allow for lead containment work to be done?
- Current status of Lead Safe Task force committee and those appointments?
- What is the rollout plan to move into Zone 2?
- Some vendors were concerned about being paid for their work to date - is there any update on this?
- Is the administration considering any public update on this work - if not in the near future - when?
- What can council do to support this work?

Deer

- Some of our residents think our large deer population needs some management and intervention.
- Is this something that should be on our Safety committee.
- Is this being considered and/or already on the administration's active work plan?

Racial Justice Task Force Safety Recommendations

- A lot of community work was done by this task-force in conjunction with the administration and the public
- Good accomplishments have come out of the recommendations (bi-monthly meet the police events and the embedded social worker on police calls)
- After recent meetings with the committee leaders - they worked under the theme of police 'transparency' and 'trust'. While I believe this is one of our values - how can we incorporate these themes into how we think about the work, outcomes and communications.
- The task force recommended sending out the following survey to our residents:
[https://qfreeaccountssjc1.az1.qualtrics.com/jfe6/preview/previewId/7dc6cae-ddb9-4970-b620-43e59ac5e529/SV_0JpvKtVNVKgqqeW?Q_CHL=preview&Q_SurveyVersionID=current]
How do we feel about this?
- One should know, many on the committee currently feel disenfranchised over the feeling their work has stalled and is no longer a priority. Honestly, some of the committee members feel angry. How can we correct this, adjust expectations, and manage those. On the administrative side - taking all this on might not be possible with their existing work plan. Maybe this where Council can assist?

Determining Council's Role Collaboratively

- How can we be supportive and in the loop?
- Hypothetically - when we hear from a resident about X issue, how can we report it - while also getting responses and updates tracking progress?
- It should go without question Council supports the Administration's work when it comes to public safety.
- In the spirit of working collaboratively - are there active priorities we should know about in the police department's work plan? How are those going? What can we do to support this work?
- Is there data and other measurable outcomes that supports the need for these priorities?
- Without adding work (to an already busy department) - what kind of data can be shared with us that helps us understand the safety of our neighborhoods (such as crime data or enforcement data)? It would be best for us to start with some baseline.
- Where are we making sure our safety forces have the resources they need?



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