



SHAKER HEIGHTS

Deer Task Force Shaker Heights City Hall, Conference Room B Tuesday, April 23, 2019, 8:00 a.m.

1. 2019 Deer Management End of Season Report.
 - Jeff DeMuth, Chief of Police
 - James Mariano, Precision Wildlife Management LTD.

Documents:

[2019 REPORT.PDF](#)

2. DRAFT 2019 Resident Deer Questionnaire.

Documents:

[2019 SURVEY.PDF](#)

3. Recommendation to Change the Task Force Name to Wildlife Task Force.
4. Next Meeting Date.

To request an accommodation for a person with a disability, call the City's ADA Coordinator at 216-491-1440, or Ohio Relay Service at 711 for TTY users.

Shaker Heights Deer Management
2019 End of Season Report
March 13, 2019
By
Precision Wildlife Management LTD.





SHAKER
HEIGHTS

City of Shaker Heights
End of Season Deer Management Culling Report

March 13, 2019

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Executive Summary

The City of Shaker Heights contracted with Precision Wildlife Management LTD. to manage the deer population in Shaker Heights. The Shaker Heights Deer Task Force Committee recommended that Precision Wildlife Management LTD be utilized to harvest deer in the City by sharpshooting. Shaker Heights City Council, Law Department, Finance Department and the Honorable Mayor David Weiss approved the contract. A detailed deer management plan was submitted to the Ohio Department of Natural Resources (ODNR) Division of Wildlife. The ODNR reviewed the plan and authorized the City of Shaker Heights to harvest 40 deer under Deer Damage Control Permit #4380.

The Precision Wildlife Team started harvesting deer on January 03, 2019, and finished on March 07, 2019. A final permitted total of 40 deer were harvested from the city. As a result of the culling efforts, over 1,978 pounds of venison was donated to the needy families in the Cleveland area providing approximately 7,800 nutritious servings of protein.

The Precision Wildlife Team demonstrated the ability to safely and humanely harvest 40 deer in a suburban environment. Despite the challenges presented, they were able to accomplish this task discreetly with no known complaints in an unforgiving environment.

This report briefly summarizes the culling effort, the challenges faced, and the characteristics of deer harvested during the winter of 2018-2019, and future recommendations.

Deer Management

Harvesting of deer was carried out from January 3, 2019 through March 07, 2019. The Precision Team primarily culled Monday through Thursday. These days were selected due to the increased pedestrian traffic on Friday, Saturday and Sunday in the areas near the bait sites. As the season progressed and challenges arose, Precision extended culling hours overnight and early morning on Fridays and Saturdays. The Precision Team was only able to harvest deer on City property.

The key to success was experience, advanced training and adapting to the challenges and variables presented. Problem solving, flexibility, and adaptability were critical in being effective.

Site Description

The City of Shaker Heights is located in northeastern Ohio within Cuyahoga County at 41° 28'35"N, 81° 33'6"W. According to the United States Census Bureau, the City has a total area of 6.32 square miles; of which 6.28 square miles is land and 0.04 square miles is water.

Shaker Heights is an inner-ring suburb of Cleveland, Ohio expanding over six square miles. Most of the city (4.7 square miles) is residential, housing approximately 26,000 residents. More than 7% of the land use is open space and parklands, including the Shaker Heights Country Club, the Van Aken Boulevard and Shaker Boulevard medians, on which the Greater Cleveland Regional Transit Authority (GCRTA) rapid transit operates, and the Shaker parklands, which include Lower Lake, Horseshoe Lake and Park, Green Lake, and Marshall Lake. The City, with its wooded parklands, beautiful residential gardens, and lakes and streams, has created an excellent habitat in which the deer population is flourishing.

Shaker Heights being an inner-ring suburb that is densely populated and predominately residential presents many deer culling challenges. The majority of the City owned land is parks with small sections of wooded patches throughout the City. Many residents utilize these parks and wooded areas for hiking, walking their dogs, biking, cross country skiing and running.

Precision was provided with names of residents that indicated that they were interested in private property culling on the City deer Questionnaire. There was an understanding that based on the prior year culling results and the questionnaire that culling on private property would be allowed. The Precision Team conducted site surveys throughout Shaker Heights on the City owned land as well as private property looking for deer activity, as well as surveying the topography and assessing pedestrian and vehicle traffic and proximity to homes and streets. Areas were identified where the risks involved with culling deer could be managed. The private property sites were selected based on interest of the resident, safety, discrete location and deer activity.

Bait locations were selected after a site assessment and extensive conversations with the residents and a written permission / liability waiver was signed. (Ohio law requires written permission from landowners to harvest deer on their property) Precision utilized ODNR form #8924 "Permission

to Enter Private Land for Recreational Purposes.” Private harvesting locations were set up in the areas of Canterbury, South Woodland near Southerly Park, and Chesterton. Later permission was obtained from several residents on South Park from Eaton to Courtland. Cameras were set up on both private and public sites and Precision started baiting. Herds of deer were observed on camera coming to the private property sites. Prior to the start of culling the Precision Team had selected 7 bait sites:

1. Shaker / Sulgrave
2. 2200 block of Canterbury
3. 2700 block of Chesterton
4. 15800 block of South Woodland
5. Lee / South Park (East / West)
6. 18401 North Park (Dead End)
7. 19401 North Park

Deer activity was being patterned on camera and deer were coming to bait on a regular basis on the private property sites (Figure 1).



Figure 1. *Bait site*

After much consideration, a decision was made not to cull on private property for this season.

Scope and Need for Action

The Deer Task Force recommended that culling continue in the 2018 / 2019 winter season. As a

result 40 deer were harvested during the 2019 season.

This year's deer questionnaire results continue to identify that our residents are concerned about the current deer population in the City of Shaker Heights.

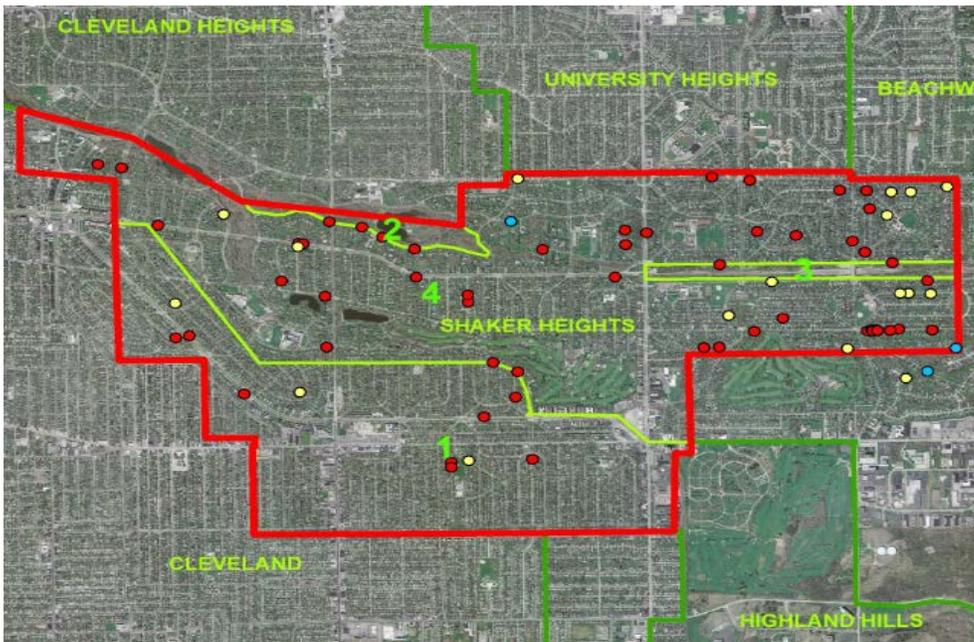
The top concerns according to the 2018 deer questionnaire were damage to landscape and garden plants, transmission of (Lyme) disease, damage to the parks' ecosystems due to over browsing, aggressive behavior toward humans and almost hitting a deer with their vehicle.

65.96% of the residents questioned in 2018 had concerns about deer in Shaker Heights. 63.7% of residents surveyed would like to see a decrease in deer in Shaker Heights. In 2016, 73.2% of the residents questioned wanted to see a decrease in deer in Shaker Heights. The current goal is to reduce the number of residents wanting deer numbers decreased to 35% or lower.

The City's deer management plan is working in the area that deer have been culled. We have impacted the deer population specifically in management Unit #3 (Shaker Blvd. median strip between Green Road and Sulgrave near the Beachwood Line). (See Deer Management Unit Map on page 6) There has been a 9.5% decrease in the amount of residents questioned that want to see a decrease in the deer herd since the questionnaire started in 2016. The Precision Team has spoken to more than 30 residents in the area and all have said they have seen a reduction in the number of deer in their yards in the past year. We have not been able to significantly impact deer numbers throughout the city. Clearly, the white-tailed deer population has exceeded the community's social carrying capacity.

Questionnaire results indicate residents are concerned about deer vehicle collisions as well as the increased boldness of the deer. Multiple residents have expressed concerns that the deer are not afraid of humans.

We have not made the progress originally indicated in the area of reducing accidents. We originally reported that we had reduced the number of deer found dead by traumatic injury by 65%. During January 2018 to November 2018 zero (0) deer/vehicle accidents were reported. Seven (7) deer carcasses were removed by Animal Control, all had signs of trauma that was most likely caused by deer vehicle collision. After reporting the data there have been two (2) deer/vehicle collisions reported from November 29, 2018 to March 07, 2019. Both deer were euthanized by police officers. During that time frame, the Precision Team has observed 5 injured deer most likely involved in a deer/vehicle collisions. Three were clearly suffering and were euthanized by the Precision Team. During the first two weeks of March, three (3) deer carcasses were removed from the City, all exhibiting signs of trauma consistent with a deer/vehicle collision.



Deer Management Units. Unit #3 is the small median strip in the upper right portion of the map

The Shaker Police do an excellent job of targeting speeders. As a result deer are struck at slower speeds and when there is a deer / vehicle collision the deer does not always expire right away. Usually the deer is injured and has a reduction in mobility and suffers infection from the trauma site. Some deer are able to survive however many suffer from infection and expire (figure 2). The Precision Team euthanized a deer that had an infection. Once the deer was harvested it was apparent that the deer had gangrene and was unfit for human consumption and was discarded.

Early in the culling season police received reports of an injured deer that had a bolt, (small arrow typically utilized in a crossbow) through its back. Multiple officers observed the deer. The Precision Team did not see the deer.

One of the deer that was harvested by the Precision Team was limping significantly. Upon further review while processing the deer it was discovered that the deer had been shot by a BB or sabot projectile in the hoof and developed an infection. The Precision team also discovered that the deer had been shot with a BB or sabot projectile in the rib cage.

In both cases of the bolt in the deer and the deer being shot by a BB or sabot projectile it appears that at least two deer were injured purposely.

There is a need to coordinate with Animal Control in documenting the date, time and location as well as the condition of a deer carcass when it is removed from the City. This would provide the City with additional information as most deer / vehicle collisions go unreported. We did not see any indication that deer suffered from epizootic hemorrhagic disease (EHD) that was seen last year.

One of the goals of the deer management program is to be able to observe a noticeable increase in the vegetation as determined by the Nature Centers controlled plant survey. The Nature Centers controlled plant survey was to be evaluated annually. Unfortunately, the plant survey could not be conducted this year and we did not receive any results.

Precision has observed multiple areas in the City where damage has occurred to trees from deer rubbing their antlers. (Figure 3a, 3b)

The Precision Team saw good numbers of deer throughout the city predominately in backyards / front yards eating acorns and browse (figure 4a, 4b, 4c, 4d). The Precision Team saw deer every day they were in the City.

Progress has been made, however in order to move toward the City's deer management goals we must first reduce the deer population to a level that significantly decreases new generational population throughout the City. Eventually this will lead to a more stabilized population that decreases the number of deer accidents and deer damages to residential and commercial properties and addresses the resident's concerns.

The white-tailed deer population currently exceeds the community's social carrying capacity as indicated by residents. Currently no other bordering City is involved in deer management.



Figure 2. *Injured deer on South Woodland*



Figure 3a. *Deer antler damage at Horseshoe Lake*



Figure 3b. *Deer antler damage at Horseshoe Lake*



Figure 4a. *Shelburne Road*



Figure 4b. *Pennington Road*



Figure 4c. *Brantley Road*



Figure 4d. *Brantley Road*

Methods

Baiting was initiated at seven sites on City owned and private property. The Precision Team baited for approximately two weeks in December. Deer activity was being patterned on camera and deer were coming to bait on a regular basis on the private property sites. Residents were looking forward to managing the deer on their property. Unfortunately, one resident expressed his views against harvesting deer on social media in the Canterbury area. In another case a resident did not want culling conducted on City property in the area of 19401 North Park. The City elected not to cull on private property or on City property in the area of 19401 North Park.

As a result, residents that allowed private property culling were notified and several were upset. The cameras were removed and the Precision Team stopped baiting in those areas. Precision started with seven bait sites with deer reliably coming to bait on private property and within a week of the start of culling had only two sites, neither of which were reliably attracting deer.

The Precision Team focused on the two sites, finding it difficult to pattern deer. Instead, deer visited the bait areas sporadically and rarely were found to be in herds near the bait areas. The precision marksmen saw a significant number of deer on a regular basis in residents' yards. Precision tried utilizing apples, berry corn, and even a mineral block to attract the deer.

The Precision Team observed a significantly higher number of coyotes than last year both on camera as well as in person. Coyotes did not appear to attack healthy deer however they did affect deer movement. Once coyotes were observed in an area deer did not visit that area for over a couple of hours and sometimes days. Coyotes did attack and eat two injured deer. Coyotes did their best to stay away from humans and were observed eating corn and small rodents.

Deer were observed daily in back yards feeding on acorns and browse. Deer tracks were observed indicating that the deer were moving from residents' backyards through the Shaker Blvd. median strip to other back yards. Deer tracks were also found throughout the City. This caused Precision to change tactics and remain mobile. Precision was unable to determine when the deer were moving and were forced to spend a significant amount of time driving in search of deer crossing the median strip.

Precision was able to harvest 21 deer within the first 9 days of culling by utilizing the mobile strategy. The deer were well educated from last year and were significantly more wary. The Precision Team noticed that deer were not at all relaxed and they would bob their heads up and down, not remaining in one spot for extended time periods. As a result the Precision Team engaged deer at greater distances than in past years. This caused them to engage deer from a variety of shooting positions and vantage points. Precision predominantly engaged deer from the roof of a truck. From this elevated position they were able to safely and humanely harvest deer. On occasion they located high ground positions and engaged deer from the ground utilizing the topography to safely and humanely harvest deer.

Deer stopped coming to the Shaker / Sulgrave area in numbers. Precision saw several herds of deer throughout the City however it was evident that the deer were becoming educated and we were overhunting two sites. The deer were not acting like suburban deer and were becoming wary of humans again. Precision would see one or two deer in the area of Shaker and Sulgrave. Only 9 deer were harvested between January 11, 2019 and February 28, 2019. Precision saw good numbers of deer throughout the City daily, however all were on private property. Several deer were observed crossing the median strip but due to vehicle and pedestrian traffic Precision was unable to engage without drawing attention.

Precision made a conscious effort to stay out of Shaker / Sulgrave from mid January through February except for baiting. Precision remained mobile and searched for deer daily throughout the City near City property. As a result deer started coming back to the area. Precision was able to harvest 40 deer safely and humanely and finished harvesting on March 07, 2019.

The Precision Team was operating on the move and in tight quarters. Deer were engaged in and around the bait sites from distances ranging from 5 yards to 177 yards. Precision passed on over 90 engagement opportunities due to branches obstructing the target, people being too close, or the target not being in front of a proper backstop. The farthest engagement in previous years was approximately 80 yards.

Prior to arriving at the sites, Precision contacted the officer in charge of the shift and notified officers that they were conducting operations. Signs were posted that read as follows: WARNING, Deer Management Area, DO NOT ENTER Shaker Heights Police 216-491-1234. The Signs were bright yellow and affixed to a doll rod placed in an orange traffic safety cone (Figure 5).



Figure 5. *Deer Management Signs*

December 2018 and January 2019 presented many challenges with the temperatures ranging from -27 degree wind chill to unseasonably warm and rainy conditions. High winds were also a factor this year with wind gusts in the upper 30's and 40's.

Precision spoke to many residents this year on the paths and in the parks. Precision did its best not to impact the residents hiking, running and enjoyment of the park. All but one resident was supportive of the culling effort. Precision listened to the many deer stories from Shaker residents as well as University Heights and Beachwood residents using the path. Precision would receive reports on deer activity throughout the City from the contacts. One particular resident advised Precision that she contacted the Mayor's office as she and her children felt threatened by a male deer in November and requested that Precision harvest deer on her property. Residents advised that they have seen a reduction in deer in the yards over the last two years. Precision received reports that there were deer observed daily in the back yards on Shaker Blvd. by residents.

The amount of pedestrian traffic became problematic as residents run and walk their dogs even at 0300 hours in the morning.

One pedestrian covered up the bait site with sticks and logs to prevent the deer from accessing the site (as observed on a trail camera) near Shaker / Lee. On Saturday mornings a subject would open up the trail camera and disable it by turning it off or removing the batteries. This happened several times. Precision left a note requesting that she not touch the camera however she ignored the note. Our bait piles in the area were raked. Early in the season Precision observed a good number of deer in the area. This number decreased after the cameras were disabled and bait piles raked. Ultimately, only two deer were harvested in that area, one of which was observed on the street and driven into the woods by a Precision Team member. After numerous times that the cameras were disabled, Precision removed the cameras and stayed out of the area.

The Precision Team assesses risks, ensures there is a proper backstop, confirms that the target is clear of obstruction, and does their best to engage the target at the proper time. They were also careful not to engage targets when cars were driving by.

Deer Management Goals: 40 tags filled Permit # 4380 (Table 1: *Deer Harvested*)

Date	Time	Location	Temp	Conditions	Shot	Sex	Antlered	Fetus	*Weight (lbs)	Age (yrs)
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1	01-03-2019	1759	Shaker/Sulgrave	34	Clear	1	M	Y	NA	113	1.5
2	01-03-2019	2140	Shaker/Sulgrave	34	Clear	1	M	Y	NA	137	2.5
3	01-03-2019	2143	Shaker/Sulgrave	34	Clear	1	M	Y	NA	108	1.5
4	01-04-2019	1850	Shaker/Sulgrave	34	Clear	1	F	N	1	119	3.5
5	01-04-2019	1853	Shaker/Sulgrave	34	Clear	2	F	N	1	112	2.5
6	01-04-2019	2045	Shaker/Sulgrave	34	Clear	1	M	N	N/A	142	3.5
7	01-04-2019	2210	Shaker/Sulgrave	34	Clear	1	M	Y	N/A	116	1.5
8	01-07-2019	1458	23349 Shaker	42	Hazy	1	F	N	0	75	0.5
9	01-07-2019	1459	23349 Shaker	42	Hazy	1	F	N	1	113	1.5
10	01-07-2019	1500	23349 Shaker	42	Hazy	1	F	N	2	115	2.5
11	01-07-2019	1502	23349 Shaker	42	Hazy	1	F	N	2	105	1.5
12	01-07-2019	1507	23349 Shaker	42	Hazy	1	M	N	N/A	110	1.5
13	01-07-2019	1525	23349 Shaker	42	Hazy	1	M	N	N/A	80	0.5
14	01-10-2019	1117	18401 N. Park	23	Overcast	1	F	N	2	105	1.5
15	01-10-2019	1117	18401 N. Park	23	Overcast	1	F	N	2	93	2.5
16	01-10-2019	1118	18401 N. Park	23	Overcast	1	F	N	1	95	2.5
17	01-10-2019	1124	18401 N. Park	23	Overcast	1	M	N	N/A	70	0.5
18	01-11-2019	1545	Shaker/Sulgrave	28	Bright	1	M	N	N/A	78	0.5
19	01-11-2019	1545	Shaker/Sulgrave	28	Bright	1	M	N	N/A	73	0.5
20	01-11-2019	1645	Shaker/Sulgrave	28	Overcast	1	F	N	3	109	1.5
21	01-11-2019	1645	Shaker/Sulgrave	28	Overcast	1	F	N	2	103	1.5
22	01-16-2019	155	16070 S. Park	28	Overcast	1	M	N	N/A	70	1
23	01-24-2019	1725	18401 N. Park	28	Dusk	1	M	N	N/A	105	2
24	02-15-2019	1235	Belvoir/Shaker WB	37	Cloudy	1	M	N	N/A	155	4.5
25	02-15-2019	1236	Belvoir/Shaker WB	37	Cloudy	2	M	N	N/A	150	3.5
26	02-20-2019	1030	Shaker/Sulgrave	30	Cloudy	1	M	N	N/A	85	1
27	02-20-2019	1200	Southpark/Lee EB	31	Cloudy	2	M	Y	N/A	110	2.5
28	02-21-2019	1800	18401 N. Park	37	Dusk	1	M	N	N/A	128	2
29	02-23-2019	0445	Shaker/Sulgrave	32	Night	1	M	Y	N/A	112	2
30	02-28-2019	0430	Shaker/Sulgrave	17	Night	1	M	N	N/A	115	1
31	03-01-2019	0545	Shaker/Sulgrave	18	Night	1	F	N	2	107	4.5
32	03-01-2019	0615	Shaker/Sulgrave	18	Bright	1	F	N	2	99	3.5
33	03-01-2019	0710	Shaker Sulgrave	18	Bright	1	F	N	2	95	3
34	03-01-2019	0715	Shaker Sulgrave	18	Bright	1	M	N	N/A	83	1
35	03-05-2019	0440	Shaker/Sulgrave	6	Night	1	M	N	N/A	129	1
36	03-06-2019	0500	Shaker/Sulgrave	14	Night	2	F	N	2	92	3
37	03-09-2019	0633	Shaker/Sulgrave	22	Bright	1	F	N	0	109	2
38	03-09-2019	0633	Shaker/Sulgrave	22	Bright	1	M	N	N/A	87	1
39	03-09-2019	0633	Shaker/Sulgrave	22	Bright	1	M	N	N/A	79	1
40	03-09-2019	0711	Shaker/Sulgrave	22	Bright	1	F	N	2	102	3

Percentage of Deer Harvested at Each Location

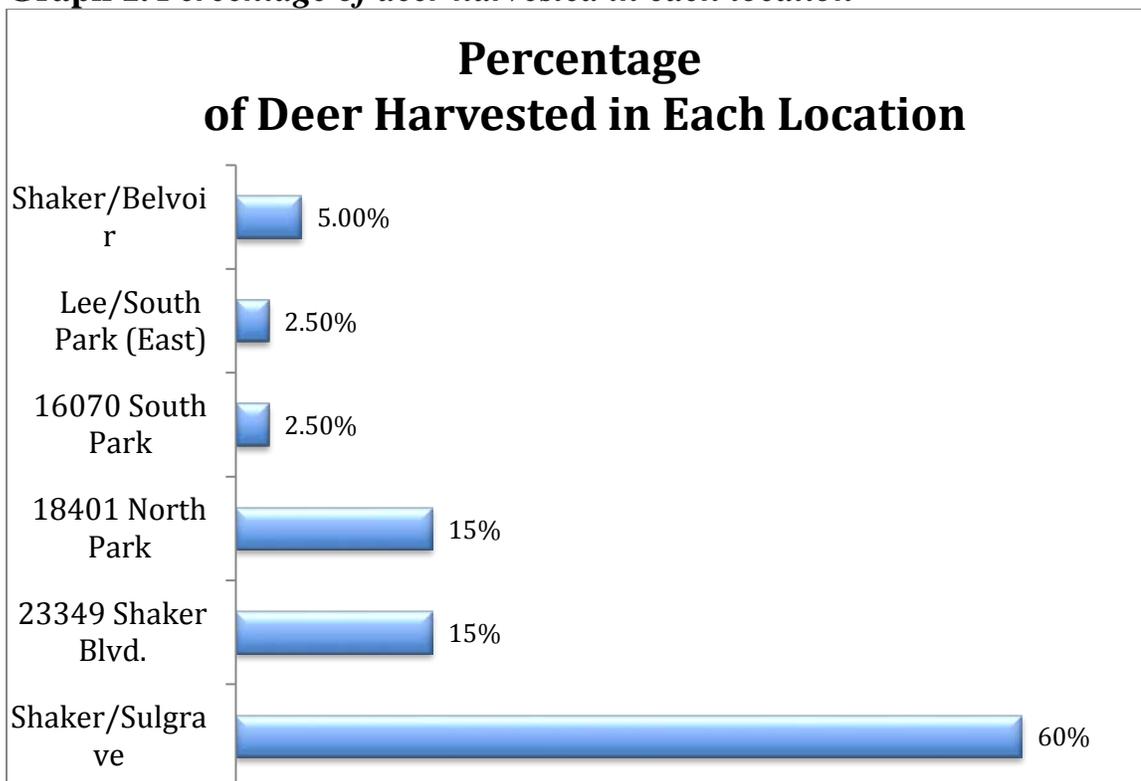
The harvest breakdown is as follows (graph 1):

- Shaker / Belvoir 2 deer or 5%
- Lee / South Park (East) 1 deer or 2.5%
- 16070 South Park 1 deer or 2.5%
- 18401 North Park 6 deer or 15%
- 23349 Shaker Blvd. 6 deer or 15 %
- Shaker / Sulgrave 24 deer or 60%

95% of deer were harvested in Unit 3. Unit 3 is 83 acres in size. The RTA tracks run through the middle of the western three quarters of the unit. All of the deer were harvested in the far eastern portion of Unit 3 near the City of Beachwood Border.

5% of the deer were harvested in Unit 4. Unit 4 encompasses Southerly Park and a large wooded area on our most North Eastern border near the City of Cleveland Heights.

Graph 1. Percentage of deer harvested in each location



The Precision Team attempted to cull deer Monday through Thursday from January 03, 2019 to March 05, 2019, spending over 725 person hours in harvesting 40 deer during the 2018-2019 culling season (graph 2)

Graph 2. *Number of deer harvested per day*

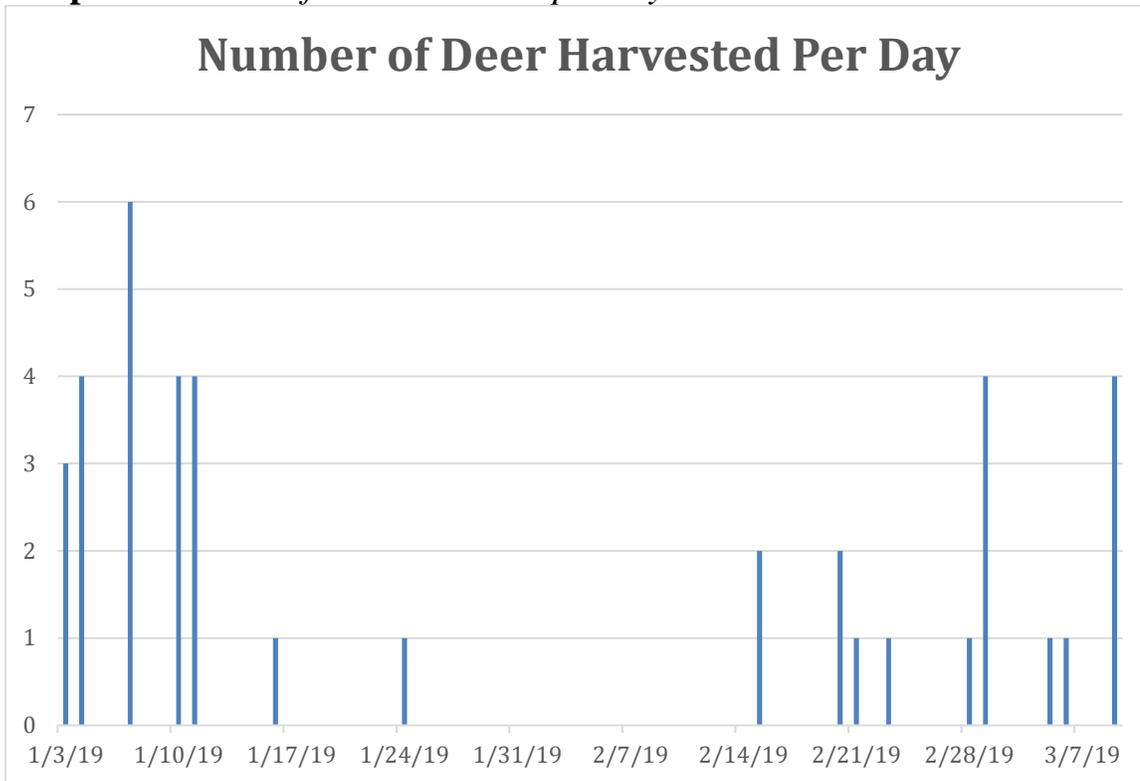


Chart 1: Male vs. Female

- 23 (57%) of the deer harvested were males (buck)
- 17 (43%) were females (doe)

Total Deer Harvested: Male vs. Female

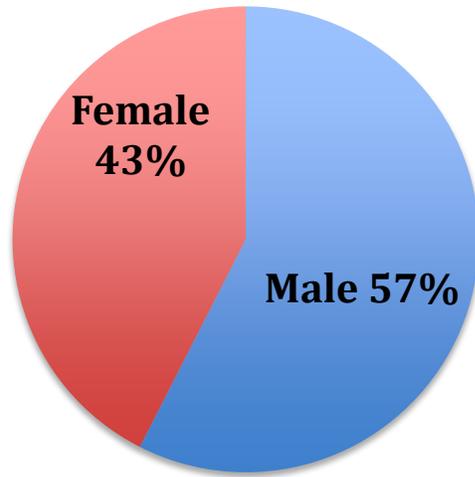


Chart 2: Antlered vs. Non-antlered (all sexes)

Of the 40 deer harvested, 6 were antlered bucks (15%), 34 were antlerless deer (85%).

The Ohio Department of Natural Resources defines antlered and antlerless deer as follows:

“Antlerless deer include deer without antlers, and deer with antlers less than 3 inches in length.”

“Antlered deer are deer with at least one antler 3 inches or longer in length”

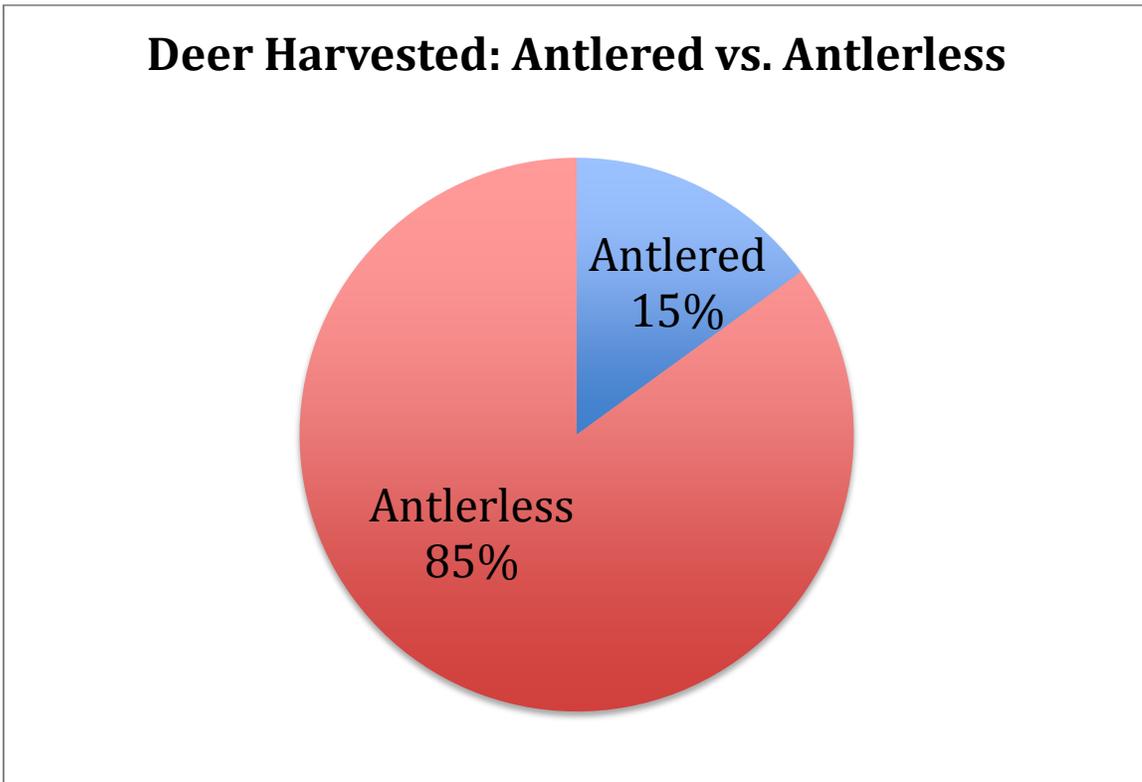


Chart 3: Fetus information

Of the 17 female deer harvested, 15 (88%) were carrying fetuses.

Of the 17 female deer harvested, 2 (12%) were not carrying fetuses.

Out of the total of 17 female deer harvested, there were 27 fetuses.

Out of the total of 17 female deer harvested the average number of fetuses was 1.56 per female.

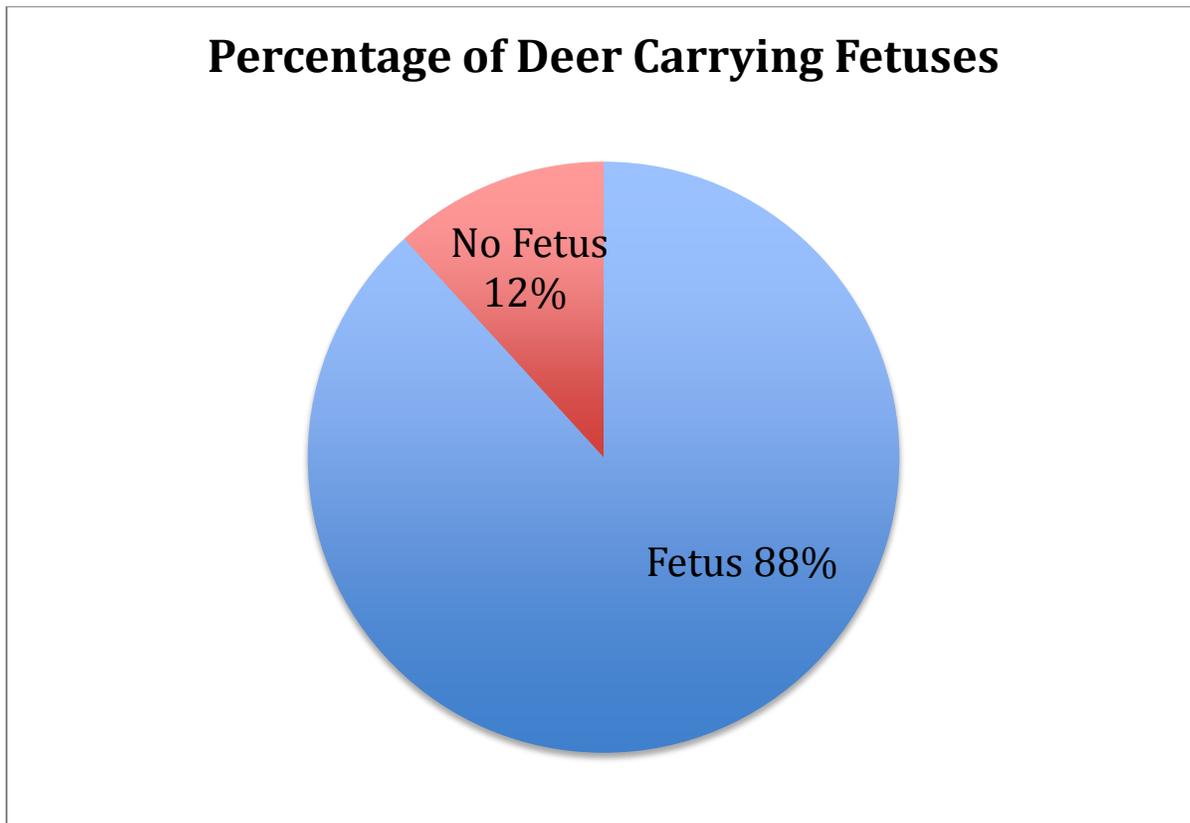
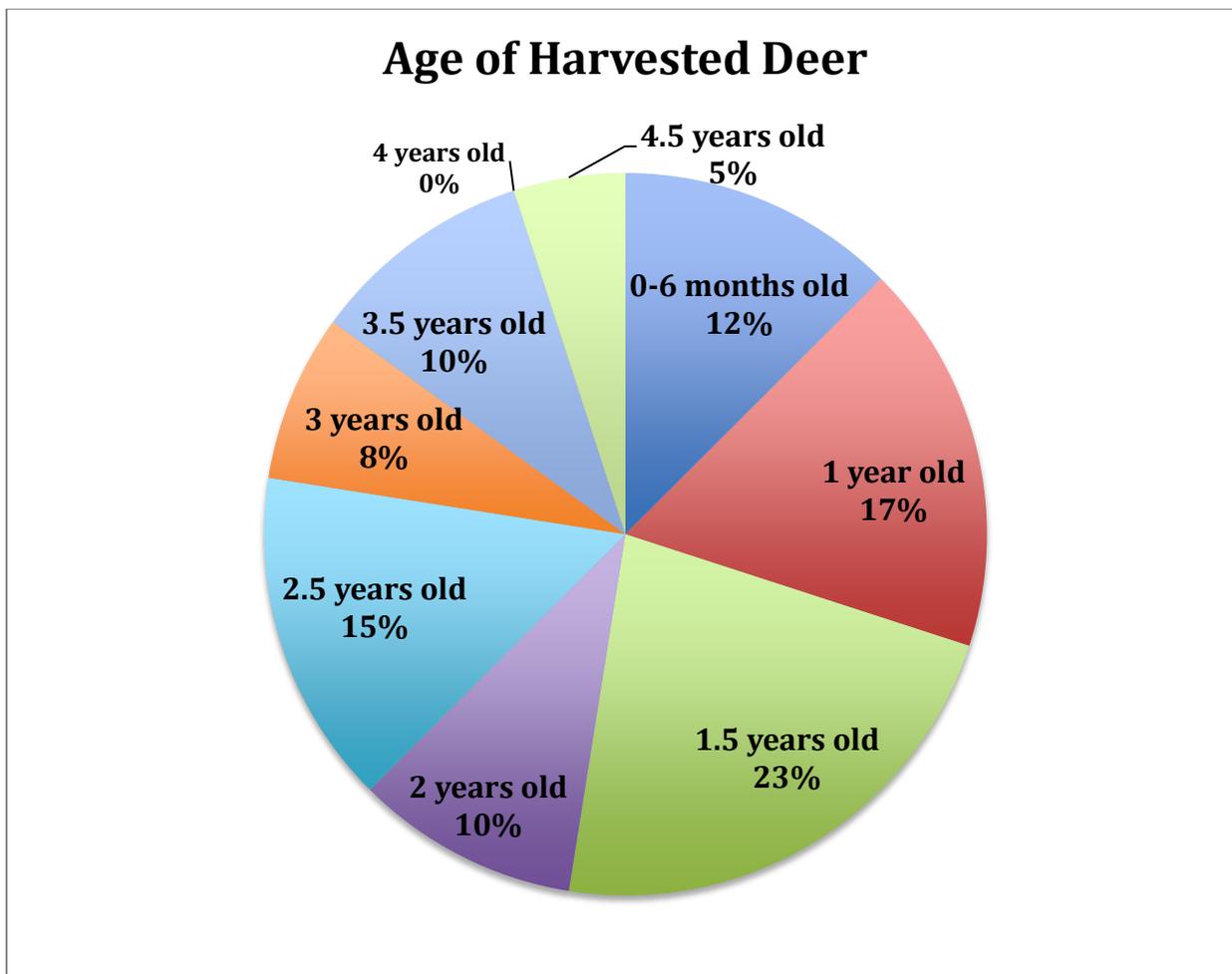


Chart 4: Age of Harvested Deer

Out of the 40 deer harvested:

- 12% were 0-6 months of age
- 17% were 1 year of age
- 10% were 2 years of age
- 15% were 2.5 years of age
- 8% were 3 years of age
- 10% was 3.5 years of age
- 5% was 4.5 years of age
- 0% were 4 years of age



Culling Estimates

The Precision Team harvested a total of 40 deer. 88% of the 17 female deer had a total of 27 fetuses. Last year (2018), 78% of the 27 female deer had a total of 38 fetuses. In 2017, 74% of the 19 female deer had a total of 29 fetuses. The 2018 / 2019 season was a success as the Precision Team filled all 40 allowable tags safely and humanely. Precision will continue to evaluate the information received to measure the impact of culling the deer.

The initial requested number of tags from the ODNR was based on culling on both City property and private property. Precision utilized data from a multitude of sources including the 2015 aerial study, reported deer per square mile in adjacent cities, reports from officers, data evaluated from police deer calls for service, accidents and reports from the service yard concerning recovery of dead deer as well as the citizen surveys and direct observation. Precision Wildlife Management LTD worked closely with Mr. Geoff Westerfield from the ODNR in determining the amount of tags allotted.

According to the aerial survey performed by Davis Aviation in 2015, there were approximately 10 deer per square mile within Shaker Heights. This survey represents a snapshot in time. Deer movement is dynamic and therefore deer populations on the fringes have impact within Shaker Heights. The City of Beachwood has an estimated 30 deer per square mile, with a considerable concentration of deer on Shaker Heights eastern border. University Heights has an estimated 14 deer per square mile.

The Precision Team saw approximately 15 to 20 deer in the Lee / South Park area initially. After the cameras were disabled and bait piles raked we stopped seeing deer activity. It is possible that baiting in a backyard either drew deer away or methods were employed surreptitiously to move deer out of the area.

The Precision Team observed deer bedded on a regular basis on City property in the area just west of 19401 North Park.

There are approximately 35 to 40 deer in the cemetery at Warrensville Center and Chagrin in Unit 1. We have received reports from both residents and officers that there have been multiple deer sightings in Unit 1. The Precision Team saw several herds early morning driving on Northfield.

The Precision Team has observed many deer in the area of Shaker Blvd. near the Beachwood Line and several herds in Beachwood near Richmond Road. Multiple sets of deer tracks have been observed coming out from behind homes on both west bound and east bound Shaker Blvd.

We have harvested the majority of deer on the Beachwood border for three years and we have made an impact. Clearly, this year the deer did not come to bait on a regular basis at Shaker / Sulgrave. Fewer doe were seen in this area. The antlered deer would visit the area on a more

regular basis. We have predominantly been targeting doe for the past two years, and have consistently harvested the majority of deer from Shaker / Sulgrave. The doe have become significantly more wary in the area and have almost avoided the bait area entirely. The bucks were not as wary.

Residents on South Park also advised that they had deer in their backyards on a regular basis and invited Precision to cull there.

Based on direct observation, trail camera information and residents' information there are deer throughout the City.

Shaker's Deer Management Program has been able to impact deer in management unit #3 for the past three years. Lack of access to other management units combined with the fact that no other surrounding city is involved in deer management leads to an increase the deer population in Shaker Heights.

Though there was lack of access to the results from the Nature Center Plant study this year, this information should be utilized in addition to resident surveys to continually evaluate the Deer Management Program. Precision will continue to work in cooperation with the Ohio Department of Natural Resources - Division of Wildlife to evaluate our Deer Management Program and culling estimates.

2018 - 2019 Season / Critical Analysis

Deer Management

Precision Wildlife Management appreciates the opportunity to earn the business of the City of Shaker Heights. Deer Management is an important issue and it is clear that the Shaker residents are concerned about the social carrying capacity of deer being exceeded in Shaker Heights based on the deer questionnaire, calls to the Mayor's office and stories told to the Precision Team on the towpath. Left unmanaged, deer populations will continue to increase, and conflict with human beings will be inevitable. Deer management can be an emotional issue with strong opinions on both sides. The Shaker Deer Task Force understands the need for a long-term deer management program and they have selected sharpshooting as the most effective and humane technique for managing deer in Shaker Heights.

The Precision Team understands the importance of professionalism, need for a specific skill set, and need to be discrete while operating in an unforgiving environment.

The Precision Team got a late start to the 2018 / 2019 season. In order to manage the risks associated with deer management in a suburban environment and meet the goals of the program strategic planning and implementation are critical. Contacting interested residents, conducting safety assessments, contacting neighbors, explaining the program, readying the bait site, setting up cameras, and baiting are labor intensive and require lead-time to be conducted professionally.

The deer management program would benefit from increased lead-time in obtaining a signed contract prior to November.

Training

Training played a defining role in the Precision Team's success. The Precision Team trains year round under a variety of weather conditions and shooting positions, increasing to daily training sessions for a month prior to the start of the culling season. A cold bore shot is taken daily prior to culling operations to confirm the weapon's accuracy. With the deer more wary and not reliably coming to bait led to the Precision Team engaging deer at greater distances and making decisions in a significantly smaller time frame. The ability of the Precision team to make critical decisions and maintain accuracy at greater distances in a variety of weather conditions was critical in obtaining the goal. Commitment to detail through a rigorous and time intensive training program allowed the Precision Team to ethically and humanely harvest 40 deer this year, despite more challenging conditions.

Baiting / Sites

Finding locations to bait that are safe, discrete, have ease of access, and have multiple deer visiting is critical to the success of the culling program. Once a site has been selected it is important not to overuse that site, as the deer are then reluctant to visit. An ideal site location for Shaker Heights is one that Precision can bait, harvest and extract deer discretely out of the eye of the public. Over the last three years it has been difficult to locate these types of sites. There have been multiple instances of resident interference and prime bait/harvest locations could not be accessed.

Due to lack of access we were forced to monitor two bait sites continuously. As a result, the deer became wary and stopped coming. The area was being over hunted and there were several days that only one or no deer were harvested. These factors led to an elongated season of culling which increased the time Precision was in the view of the residents as well as an increase in bait utilized. The squirrels and birds in Shaker were great benefactors and enjoyed the winter food.

The majority of City property is within a park or along a towpath, with a significant amount of pedestrian and vehicle traffic. Even in areas that are wooded and not in the park people regularly walk their dogs, bike, and cross country ski. Having bait sites on City property exponentially increases the opportunity for a resident to see the Precision Team deployed with a scoped rifle or a deer being harvested. The Precision Team has worked diligently at being discrete. Many times the Precision Team chose not to engage because a resident potentially would see the team be deployed with a scoped rifle or potentially witness a deer harvest.

Conclusion

Deer management is a complex issue requiring a multi-factorial approach. Residents have very different opinions about the presence of deer - some view increased interaction between deer and humans as favorable; others view it as problematic. The sharp shooting option that the Deer Task Force has recommended has proven to be safe, humane, and efficient. We will continue to explore additional options and come up with responsible recommendations that suit the unique needs of our community.

Due to the limitations of bait locations, more educated and wary deer, as well as the amount of vehicle/pedestrian traffic in the area of City property, the Precision Team had to increase the amount of time spent attempting to intercept deer discreetly. As a result, there were 726 person hours spent on culling operations, which is a significant increase from last year's 288 person hours. With the increase in time spent, the chances of residents potentially seeing the Precision Team with a scoped rifle or harvesting or extracting a deer increased significantly. Additionally, with the season being elongated there is an increase chance of warmer weather, which could negatively affect the processing of venison.

The Precision Team saw good numbers of deer throughout the season. Even after harvesting 40 deer, the Precision Team observed 29 deer within 6 hours on the last day of harvesting. Reports from officers and employees, as well as photos from the trail cameras indicate that there are

significant amounts of deer in the area. Reports indicate that the large majority of the deer have been seen in backyards and along the roadway. We have only been able to harvest deer in Unit 3 and Unit 4. Shaker Heights needs to continue to explore the option of culling on private property and the curtilage of the cemetery.

It is difficult to accurately predict the exact number of deer in Shaker Heights. Whereas the Precision Team are not wildlife biologists, the deer that they observed appeared healthy, with the exception of the five injured deer that looked to be struck by a motor vehicle. The deer observed were not starving. Shaker Heights provides ideal habitats for deer by providing ample food, water and cover. Instead of looking at the number of deer per square mile, modern deer management looks at trends and the *effects* of deer overabundance, such as deer health, ecosystem health and deer-human conflicts.

When it comes to urban deer, wildlife biologists often advise that instead of asking how many deer an urban environment could biologically support, the more salient task is assessing how many deer a community finds acceptable - the social carrying capacity.

Recommendations for 2020

- **Continue with Precision Wildlife Management LTD.**
- **Pursue locating additional sites**
- **Pursue private property culling opportunities / make it easy for the residents to be involved in the program**
- **Continue to locate and intercept deer**
- **Coordinate with Police Department /Animal Control and Service Yard in obtaining data from the field**
- **Coordinate with the Nature Center on the plant survey**

Thank you

Precision Wildlife Management LTD would like to thank the City of Shaker Heights for providing us with the opportunity to earn your business. We appreciate the confidence and trust you have shown us and we will continue to do our best to honor it. A special thank you to Chief Demuth for coordinating with Precision and being the single point of contact for the City. Thank you again for a successful season and the opportunity to serve the fine residents of Shaker Heights.

The Precision Wildlife Team

Private Property Deer Harvesting Protocols

Private Property protocols are as follows:

1. The goal is to select private property sites where deer can be harvested safely, humanely and discretely in an effort to meeting the City's deer management goals.
2. Prospective landowners wishing to participate in the deer management program will be contacted by a Precision Wildlife Management Team member to discuss the process.
3. A Precision Wildlife Management Team member will conduct a safety site assessment on the prospective location. The assessment will include ensuring that the location has proper topography and size to support harvesting deer safely.
4. Neighbors directly next to the prospective location will be contacted and advised of the landowner's intentions of participating in the deer management program.
5. The Precision Team will discuss the program with the landowner as well as the neighbors directly next to the landowner's property to ensure they are aware of how operations will be conducted and will address any concerns. All will be given the option of being notified when Precision will be on the property culling.
6. Target engagements will be conducted from elevated positions predominately from a truck but could include other elevated options.
7. The location will be baited on a regular basis and trail cameras will be set up overlooking the bait site.
8. The landowner will be requested to provide written permission per law to allow Precision to harvest on their property.

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CITY OF SHAKER HEIGHTS

RESIDENT DEER ~~SURVEY QUESTIONNAIRE~~ 20198

~~In 2016, t~~The City of Shaker Heights began a deer reduction program by Shaker Heights Police Department trained marksmen in response to safety, health, and economic concerns about an overabundance of deer in the city. The input received via this survey will help to determine the level of control needed to address the number of deer in our city and their impact on our residents. ~~The presence of deer in our city is well established. This survey will help the city identify whether, and the degree to which, that presence is an issue to the residents who respond to it.~~

1. How would you describe the deer population in the City of Shaker Heights?

- Overabundant
- Abundant
- Few
- Very few
- Just right
- Uncertain

2. How would you describe the deer population in your neighborhood?

- Overabundant
- Abundant
- Few
- Very few
- Just right
- Uncertain

3. Have you noticed a change in the number of deer in your neighborhood compared to last year?

4. Do you have concerns about deer in the City of Shaker Heights?

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- no
- yes

5. If you have concerns about deer in the City of Shaker Heights, please indicate those concerns (check all that apply):

- Damage to landscape and garden plants
- Transmission of diseases
- Damage to park ecosystems by over-browsing of native forage plants
- Decline in deer health due to overpopulation
- Aggressive behavior toward humans
- Aggressive behavior toward pets
- Hit a deer with my vehicle
- Almost hit a deer with my vehicle
- Other

6. If other, please specify:

~~7. Are you aware of residents feeding deer in your neighborhood? *~~

- ~~yes~~
- ~~no~~

8. In the future, what would you like to see happen with the number of deer in Shaker Heights?

- slight increase
- moderate increase
- substantial increase
- slight decrease
- moderate decrease
- substantial decrease
- stay the same
- uncertain

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9. This past winter the city conducted deer culling on city-owned properties only. It would be helpful to our culling efforts if the trained marksmen could access private property to lead deer to city-owned property. Should the city consider moving deer from private property of willing residents?

- Yes, move deer from private property of willing residents
- Yes, contact me to move deer from my private property to city-owned property
- No, stay on city-owned land

10. If the city were to decide to cull deer on private property, would you want your property included?

- Yes, contact me using information shared at the end of this survey
- No

11. Did you participate in the last survey of residents conducted in 2017~~8~~? 8

- Yes
- No

12. Please add any additional comments about deer:

Resident Information

Name First Last

Address *

Phone Number ### - ### - ####

Email *

Attach a File

Attach a File