

FINAL REPORT

2019 Deer Management Program

Mt Lebanon, Pennsylvania

by

White Buffalo, Inc.

27 February 2019

INTRODUCTION

Mt Lebanon contains a matrix of dense suburban and commercial development interspersed with a spectrum of parks. The absence of any comprehensive deer management allowed the local deer population to increase to a level incompatible with some land use and human activities prior to our involvement. Although deer physical condition is not an issue, there is ongoing concern regarding numerous deer-vehicle collisions and other deer related issues. This is the fourth year in which White Buffalo, Inc. has implemented deer population management program within the municipal boundaries. We harvested 115, 55, 57, and 44 deer during the 2016, 2017, 2018, and 2019 programs, respectively.

METHODS

Pre-baiting was conducted from 22 January – 12 February 2019. Sharpshooting efforts were conducted from 13-25 February 2019. Eleven days of fieldwork were required to achieve the harvest of 44 deer. We followed the operations protocol outlined in the contract and PGC Permit #45195. Twelve sites were available throughout the area of operation. Three previous locations were not utilized during the 2019 program due to lack of activity in 2018. One new private site was added.

RESULTS

We expended ~134 person-hours to harvest 44 deer (this does not include travel time, site preparations and set up, or baiting). The entire data set generated from harvested deer is represented in the spreadsheet entitled "Mt Lebanon, PA- Deer Harvest: 13-25 February 2019" (Appendix A). The overall harvest demographics are summarized in Table 1. Harvest by day is summarized in Table 2. Harvest results from specific sites ranged from a high of 7 deer to a low

of 1 for sites where effort was allocated. Twenty-eight deer (64%) were harvested from private properties while 16 (36%) were removed from the four public properties available.

Table 1. Sex and age class of deer harvested in Mount Lebanon, PA from 13-25 February 2019.

AGE	# MALE (%)	# FEMALE (%)	# COMBINED
Yearling/Adult	19 (43%)	15 (34%)	34 (77%)
Fawns	4 (9%)	6 (14%)	10 (23%)
Total	23 (52%)	21 (48%)	44 (100%)

Table 2. Number of deer harvested by day during the 11 days of field operations.

DATE	# Harvested	DATE	# Harvested	DATE	# Harvested	DATE	# Harvested
2/13/19	5	2/16/19	10	2/19/19	6	2/23/19	3
2/14/19	3	2/17/19	1	2/21/19	6	2/25/19	0
2/15/19	4	2/18/19	4	2/22/18	2		

Harvest by Deer Management Zone

To allow for a more comprehensive population management program, we summarized all the harvest data by management zone. Zone 1 was delineated as all land west of Cedar and Cochran to the municipal boundary. Zone 2 was composed of all land east of Cedar and Cochran, west of Scott Road, and north of Beadling Road and Mt Lebanon Boulevard to the northern municipal boundary. Zone 3 was south of Beadling Road and Mt Lebanon Boulevard, west of Castle Shannon Boulevard, to the southern municipal boundary. Zone 4 covered land east of Scott Road/Castle Shannon Boulevard to the municipal boundary. Harvest breakdown based on zone for the sharpshooting effort is summarized in Table 3.

Table 3. Deer harvest by Zone Mount Lebanon, PA 13-25 February 2019.

Zone	# Harvested
1	18
2	11
3	3
4	12

DISCUSSION

Harvest effort was allocated based on deer activity at each location. Harvest effort ranged from one seated attempt (one evening's effort) with 7 deer harvested to two seated attempts at one location resulting in one deer total. Most sites required two seated attempts to harvest the deer that were utilizing the sites within our work window (16:00-23:00 h private and 18:00-22:00 h public). Several sites had deer activity that occurred outside our work window.

When both management phases, sharpshooting and archery, are combined 74 deer were culled this past fall/winter. We expended ~134 person-hours for sharpshooting to harvest 44 deer. Therefore, it required ~3 hours/deer harvested, a ~25% increase over 2018 effort of 2.2 hours/deer harvested. It should be noted that the amount of support effort, specifically the amount of time spent baiting and travel, decreased significantly over last year's project. While weather conditions during the project proved to be challenging, with significant amounts of rainfall and wind events, ambient temperatures were closer to historic averages and the project continued with only minor interruptions.

Twenty-three percent of this year's sharpshooting effort resulted in no harvest. During the last three days of the program 66% of the effort resulted in no harvest. As deer that lived proximate to bait sites were removed the activity became much more unpredictable, resulting in removal effort without any harvest. Bait site activity became very sporadic (arrival times and/or days) at most locations, as the remaining deer had to travel longer distances to baited locations. With numerous obstacles (i.e., human activities) to navigate in dense suburbia there was increased likelihood that deer were detoured on route to our baited locations.

Overall the amount of effort required to remove deer in Mount Lebanon, PA is a high compared to other projects with similar local deer densities. This is due to the challenge of working in a densely developed area with a "tree stand only" approach, restrictions on hours when work can be conducted, and lack of safe and discreet shooting locations in some areas where deer densities are known to be above suitable thresholds.

Antidotal evidence suggested we have achieved localized impacts on deer abundance proximate to culling locations. Numerous homeowners adjacent to culling sites have described a significant reduction in deer observations, and the regeneration of landscape plantings thought to be no longer present or salvageable. In addition, the number of sharpshooting sites with enough consistent deer activity to justify removal efforts continues to decrease. Sixteen percent of the historic sharpshooting sites were not utilized during the 2019 program due to lack of deer activity in 2018. The addition of one new private site resulted in 11% of the overall harvest.

Regardless of the relative success of the two harvest phases, in some areas of the municipality there continues to be pockets of more densely developed areas where deer have not been addressed (e.g., Bower Hill Road East of St. Clair Hospital). After four years of effort new access options to sharpshoot are nearly exhausted. Therefore, the challenge moving forward is how to address the deer in areas where sharpshooting and archery hunting is not feasible due to lack of suitable locations. The Commission will need to decide whether to add non-traditional lethal management activities in very tightly developed areas (i.e., capture and euthanize), or transition to sterilization in these areas of the community. In respect to surgical sterilization, it is

not currently a deer management option that is allowed by the Pennsylvania Game Commission, and Mt. Lebanon was recently denied approval for a deer sterilization research project. A new submittal would be necessary with emphasis on maintaining, not reducing, the local population at the desired density. The added advantage of fertility control methods is that bait leverage is not critical like sharpshooting and can still be effective in less intense winter weather.

RECOMMENDATIONS

In order to improve operational efficiency and remove deer otherwise not accessible, it is recommended that the hours available for sharpshooting activities be expanded. Currently sharpshooting activities can only occur between the hours of 18:00-22:00 h Monday-Friday on public property and 16:00-23:00 h seven days a week on private property. On several occasions removal opportunities were lost in the public properties due to deer arriving at the cull site before the operational work window and they did not return during the hours available for removal efforts. Broadening the operational work window would allow us to be more flexible with removal activities. Due to the limited amount of park use during the winter very few residents would be impacted by a timing adjustment. As always, Public Safety is paramount, if there are people in the park we do not shoot. Our suggestion would be to increase the operational work window to 15:00-00:00 h seven days a week for both public and private sites.

The addition of Williamsburg Parks to the public properties authorization list would help increase operational efforts. Currently, we work on private property adjoining the parks. While we have been reasonably successful, the ability to shoot across the property line into park property would have increased the harvest. Actual shooting location would not need to be moved and it has already been inspected by the police department. This simple adjustment would have potential to increase the overall harvest for future efforts.

It also would be our recommendation for the municipality to conduct another deer population estimate. This would allow us to gain a better understanding of our impacts where we have access, the relative distribution of deer in areas we do not have access, and allow us to better argue for alternative management options if deemed necessary.

ACKNOWLEDGMENTS

We would like to thank all participating homeowners for their cooperation. Without access to these private parcels deer management in Mount Lebanon would be very limited. In addition, we would like to acknowledge Kip's Processing, LLC for processing the venison for donation. Through this year's program 1,738 pounds of venison have been donated to charitable organizations through the PA Hunters Sharing the Harvest Network.

Appendix A

Mt. Lebanon, PA - Deer Harvest: 13-25 February 2019

DATE	TAG #	SEX	AGE
2/13/19	23241	M	1.5
2/13/19	23242	M	2.5
2/13/19	23243	M	1.5
2/13/19	23244	M	2.5
2/13/19	23245	F	4.5+
2/14/19	23246	M	1.5
2/14/19	23247	F	4.5
2/14/19	23248	M	2.5
2/15/19	23249	F	4.5+
2/15/19	23250	F	4.5+
2/15/19	23251	F	3.5
2/15/19	23252	M	2.5
2/16/19	23253	M	1.5
2/16/19	23254	M	1.5
2/16/19	23255	M	2.5
2/16/19	23256	M	1.5
2/16/19	23257	M	1.5
2/16/19	23258	F	1.5
2/16/19	23259	M	1.5
2/16/19	23260	F	0.5
2/16/19	23261	F	4.5+
2/16/19	23262	F	0.5
2/17/19	23263	M	2.5
2/18/19	23264	M	0.5
2/18/19	23265	M	3.5
2/18/19	23266	F	0.5
2/18/19	23267	F	1.5
2/19/19	23268	M	0.5
2/19/19	23269	F	0.5

2/19/19	23270	M	1.5
2/19/19	23271	M	2.5
2/19/19	23272	F	2.5
2/19/19	23273	F	0.5
2/21/19	23274	F	3.5
2/21/19	23275	F	1.5
2/21/19	23276	M	0.5
2/21/19	23277	M	1.5
2/21/19	23278	F	4.5+
2/21/19	23279	F	0.5
2/22/19	23280	F	2.5
2/22/19	23281	F	4.5
2/23/19	23282	M	1.5
2/23/19	23283	F	2.5
2/23/19	23284	M	0.5