

## **FINAL REPORT**

### **2020 Deer Management Program**

**Mt Lebanon, Pennsylvania**

**by**

**White Buffalo, Inc.**

**25 February 2020**

## **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 fifth year in which White Buffalo, Inc. has implemented deer population management program within the municipal boundaries. We harvested 115, 55, 57, 44 and 35 deer during the 2016, 2017, 2018, 2019 and 2020 programs, respectively.

## **METHODS**

Pre-baiting was conducted from 17 January – 1 February 2020. Sharpshooting efforts were conducted from 2-14 February 2020. Twelve days of fieldwork were required to achieve the harvest of 35 deer. We followed the operations protocol outlined in the contract and PGC Permit #48439. Twelve sites were available throughout the area of operation. Two locations were not utilized during the 2020 program due to lack of activity during operations. One new private property site was added.

## **RESULTS**

We expended ~138 person-hours to harvest 35 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: 2-14 February 2020" (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 10 deer to a low of 1 for sites where effort was allocated. Twenty-four deer (69%) were harvested from

private properties while 11 (31%) were removed from two public properties. The additional three public properties yielded no harvest.

**Table 1.** Sex and age class of deer harvested in Mount Lebanon, PA from 2-14 February 2020.

<b>AGE</b>	<b># MALE (%)</b>	<b># FEMALE (%)</b>	<b># COMBINED</b>
Yearling/Adult	15 (43%)	12 (34%)	27 (77%)
Fawns	4 (11%)	4 (12%)	8 (23%)
Total	19 (54%)	16 (46%)	35 (100%)

**Table 2.** Number of deer harvested by day during the 12 days of field operations.

<b>DATE</b>	<b># Harvested</b>	<b>DATE</b>	<b># Harvested</b>	<b>DATE</b>	<b># Harvested</b>	<b>DATE</b>	<b># Harvested</b>
2/2/20	3	2/5/19	1	2/9/20	4	2/12/20	1
2/3/20	4	2/7/19	9	2/10/20	5	2/13/20	2
2/4/20	4	2/8/19	1	2/11/20	1	2/14/20	0

### **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 2-14 February 2019.

<b>Zone</b>	<b># Harvested</b>
1	13
2	9
3	3
4	10

## DISCUSSION

Harvest effort was allocated based on deer activity at each location. Harvest effort ranged from one seated attempt (one evening's effort) with 9 deer harvested to three 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 60 deer were culled this past fall/winter. We expended ~138 person-hours for sharpshooting to harvest 35 deer. Therefore, it required ~4 hours/deer harvested, a ~30% increase over 2019 effort of 3 hours/deer harvested. While weather conditions during the 2020 project continued to prove challenging, with significant amounts of rainfall and above normal ambient temperatures, only a single day of operations (February 6<sup>th</sup>) was lost due to inclement weather conditions.

The main cause of this year's decrease in productivity was weather. While the overall conditions proved conducive to conducting shooting operations, they were not ideal for targeting deer in a suburban environment. Warm weather resulted in a significant increase in human activities proximate to most shooting sites. This increase in human activity, coupled with the deer's limited biological need to feed, caused erratic arrival times at bait sites or shifted deer movement later in the evening once human activity subsided. Successful targeting was further complicated once the "local" deer were removed from the bait sites. Remaining deer were traveling much further distances to the bait sites increasing the likelihood of being detoured due to various human activities.

Overall the amount of effort required to remove deer in Mount Lebanon, PA continues to be 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. Anecdotal evidence suggests we continue to achieve 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.

Regardless of the continued success at select areas in the community, 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 five 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, particularly on public properties. 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. **Minimally, it would add substantially to harvest totals is we could begin shooting operations at 1600 h on weekdays on public properties.**

As mentioned previously, the addition of Williamsburg Park 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 1,267 pounds of venison have been donated to charitable organizations through the PA Hunters Sharing the Harvest Network.

## Appendix A

### Mt. Lebanon, PA - Deer Harvest: 2-14 February 2020

DATE	TAG #	SEX	AGE
2/2/20	24701	F	4.5+
2/2/20	24702	F	2.5
2/2/20	24703	F	3.5
2/3/20	24704	F	3.5
2/3/20	24705	F	2.5
2/3/20	24706	F	2.5
2/3/20	24707	F	0.5
2/4/20	24708	M	3.5
2/4/20	24709	M	4.5+
2/4/20	24710	F	2.5
2/4/20	24711	F	0.5
2/5/20	24712	M	1.5
2/7/20	24713	M	2.5
2/7/20	24714	M	2.5
2/7/20	24715	M	3.5
2/7/20	24716	M	1.5
2/7/20	24717	M	3.5
2/7/20	24718	F	1.5
2/7/20	24719	M	0.5
2/7/20	24720	M	4.5+
2/7/20	24721	F	2.5
2/8/20	24722	F	1.5
2/9/20	24723	M	1.5
2/9/20	24724	M	0.5
2/9/20	24725	M	1.5
2/9/20	24726	M	1.5
2/10/20	24727	F	0.5
2/10/20	24728	F	0.5
2/10/20	24729	F	3.5

2/10/20	24730	F	1.5
2/10/20	24731	M	1.5
2/11/20	24732	M	2.5
2/12/20	24733	M	1.5
2/13/20	24734	F	2.5
2/13/20	24735	M	0.5