



White Buffalo Inc.

Conserving Native Species and Ecosystems

Final Deer Management Report

Village of Cayuga Heights, New York

27 April 2021

Submitted by

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INTRODUCTION

Village of Cayuga Heights officials had voiced concerns over deer-vehicle collisions, risks of Lyme disease, and impacts to landscape vegetation because of a locally abundant deer population. The potential for the furtherance of these conflicts prompted Trustees to address the abundance of deer through research conducted by Cornell University in the early- to mid-2000s. After experiencing no relief, there was further discussion regarding management options. Thorough analysis and consultations revealed that there were no legal lethal methods available. Therefore, they decided to pursue a surgical sterilization research project that was conducted during in 2012-13 resulting in all females in the Village being captured and sterilized.

During fall of 2014 the NYS Legislature passed a law that reduced the discharge setback from occupied structures from 500 ft to 250 ft for crossbows, and 150 ft for archery equipment. This allowed legal access to private property for lethal management actions. After considerable discussion, the Trustees, in consultation with the Chief of Police, decided to pursue a highly structure depredation cull using archery equipment. This involved strategic use of bait to control deer movements and the most advanced crossbows to ensure humane treatment of animals. In winter 2016, the archery culling was followed by a surgical sterilization phase to address the remaining untreated females. The final year of the archery depredation culling program was implemented in 2017, because NYSDEC began to enforce a statute that prohibits placing bait within 300 ft of a roadway. Given this development, the only remaining lethal option was to opportunistically capture deer using remote immobilization equipment from roadways, then euthanize them via lethal injection while they were under anesthesia. During the first year (2018) of capture and euthanasia efforts 45 deer were removed from the Village. In 2019, 15 deer were removed; with a remnant population of <10 deer. In 2020, no deer management efforts were conducted due to the Covid-19 pandemic. The purpose of this report is to summarize the third year of the capture and euthanasia deer management program.

SITE DESCRIPTION

The Village of Cayuga Heights (VCH) contains a matrix of suburban and commercial development, parks, and other open-spaces. The absence of any deer management, combined with fertile soils and good-quality habitat, 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, Lyme disease risks, and damage to garden and landscape plantings. Camera surveys conducted by Cornell University documented a ~30% population decline one year after the surgical sterilization research project was initiated. After the conclusion of capture and euthanasia efforts in 2019 the population was ~96% lower than the initial population size (i.e., ~225 deer reduced to <10 deer). The purpose of the capture and euthanasia management program is to maintain the local deer population at the very low densities achieved in 2019.

METHODS

We followed the permit conditions outlined in the NYSDEC Deer Damage Permit #20892. Deer were remotely immobilized using darting equipment from a vehicle with collaboration from the VCH Police Department. Deer were administered 190 mg Telazol (tiletamine HCl + zolazepam HCl) and 175 mg xylazine HCl. After deer were sufficiently anesthetized, they were retrieved from the field, and transported to a designated location to be euthanized using a lethal IV injection of potassium chloride.

RESULT AND DISCUSSION

Deer capture and euthanasia activities were conducted from 21-23 April 2021. We removed 21 deer from the Village during three nights of operations (see Table 1). A complete list of the deer lethally removed can be found in Appendix A. We removed 45 deer during 10 person-days of capture and euthanasia efforts in 2018 and 15 deer during 4 person-days in 2019. This year 21 deer were harvested during 6 person-days of capture and euthanasia efforts, an approximately equal level of efficiency, reflecting a very efficient rate of deer removal. Most of the captured immigrants continue to be located in the northeastern and southern sections of the Village, and were proximate to the perimeter.

Sixty-seven percent of the harvest was female and 81% were antlerless (i.e., includes male fawns). We captured 67% of yearling/adult male that we observed ($n = 6$). This is an increase in number of males removed/detected in 2019 ($n = 4$), reflecting the impact of no management in 2020. If culling efforts were not conducted this year the population would have increased significantly through immigration and fawning this spring. In contrast, we have maintained the low densities achieved in 2019 (i.e., ~10 deer remained in 2019, and ~9 deer were in the Village upon our departure this year).



Table 1. Sex and age class of deer captured and euthanized in the Village of Cayuga Heights, New York from 21-23 April 2021.

AGE	# MALE (%)	# FEMALE (%)	# COMBINED (%)
Yearling/Adult	4 (19)	10 (48)	14 (67)
Fawns	3 (14)	4 (19)	7 (33)
Total	7 (33)	14 (67)	21 (100)

Our continued inability to use bait legally leaves the Village leadership with only one option to maintain the local deer population. Given the past three years of successful capture and euthanasia removal, we recommend that the Village continue using capture and euthanasia or the population will increase given the documented rates of immigration.

Upon concluding this year's efforts, there was one marked adult female (C127), 2 unmarked adult females, 3 unmarked fawns, and 3 adult males detected; ~9 deer. This represents a 96% reduction from a high of ~225 deer eight years ago. It is important that the Village continues the program to address deer that immigrate. The capture and euthanasia approach eliminates the need for future sterilization efforts, given the capture methods are the same.

ACKNOWLEDGEMENTS

We would like to thank the following individuals for assistance provided prior to and during the project; Mayor Linda Woodard, Chief Jerry Wright and his staff (especially James Manning for his repeated unparalleled effort yet again!) from the Village of Cayuga Heights Police Department. We also greatly appreciate the support, through permitting, from NYSDEC, especially Courtney LaMere.



APPENDIX A. Deer Harvest Data 21-23 April 2021, Cayuga Heights, NY

Date	Carcass Tag #	Age	Sex	Location	Notes
4/21/21	111851	Adult	Female	Highland	
4/21/21	111852	Adult	Female	Highland	Cornell tag 146
4/21/21	111853	Fawn	Male	Highland	
4/22/21	111854	Adult	Male	Cayuga Heights	
4/22/21	111855	Adult	Male	Cayuga Heights	
4/22/21	111801	Adult	Male	Cayuga Heights	
4/22/21	111802	Adult	Female	Remington	
4/22/21	111803	Fawn	Male	Remington	
4/22/21	111804	Adult	Female	Warwick	
4/22/21	111805	Adult	Female	Hanshaw	
4/22/21	111806	Fawn	Female	Hanshaw	
4/22/21	111807	Adult	Female	Texas	
4/22/21	111808	Adult	Female	Texas	
4/23/21	111809	Fawn	Female	Cayuga Heights	
4/23/21	111810	Fawn	Female	Wyckoff	
4/23/21	111811	Adult	Male	Winthrop	
4/23/21	111812	Adult	Female	Sheldon	
4/23/21	111813	Fawn	Female	Sheldon	
4/23/21	111814	Adult	Female	Simsbury	
4/23/21	111815	Adult	Female	Wyckoff	
4/23/21	111816	Fawn	Male	Wyckoff	