



**White Buffalo Inc.**

Conserving Native Species and Ecosystems

## **Final Deer Management Report**

Village of Cayuga Heights, New York

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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 of capture and euthanasia efforts 45 deer we removed from the Village; with a remnant population of <10 deer. The purpose of this report is to summarize the second 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 last year's capture and euthanasia efforts 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 was to maintain the local deer population at the very low densities achieved in 2018.

## **METHODS**

We followed the permit conditions outlined in the NYSDEC Deer Damage Permit #10827. Deer were remotely immobilized using darting equipment from a vehicle with collaboration from the VCH Police Department. Deer were administered 265 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 1-2 April 2019. We removed 15 deer from the Village during two 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. This year 15 deer were harvested during 4 person-days of capture and euthanasia efforts, an approximately equal level of efficiency.

Sixty percent of the harvest was female and 73% were antlerless (i.e., includes male fawns). We captured every yearling/adult male that we observed ( $n = 4$ ). This is a similar number of males removed as last year ( $n = 3$ ), reflecting a steady number of resident males in VCH. 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 last year (i.e., ~9 deer remained in 2018, and ~10 deer were in the Village upon our departure this year).

There was nearly the equivalent amount of immigration of antlerless deer into the Village in 2019 (~17 deer) as in 2018 ( $n = 19$ ), and as had occurred in the first year of the archery program (2015; 14 deer). Most of the immigrants continue to be located in the northeastern and southern sections of the Village, and were proximate to the perimeter.



**Table 1.** Sex and age class of deer captured and euthanized in the Village of Cayuga Heights, New York from 1-2 April 2019.

AGE	# MALE (%)	# FEMALE (%)	# COMBINED (%)
Yearling/Adult	4 (27)	8 (53)	12 (80)
Fawns	2 (13)	1 (7)	3 (20)
Total	6 (40)	9 (60)	15 (100)

Our continued inability to use bait legally leaves the Village leadership with only one option to maintain the local deer population. Capture and euthanasia has increased efficiency >3-fold compared to the last year of archery culling over bait. Given the past two 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 were 3 marked females (C127, C146, and an unidentified), 4 unmarked females, 3 unmarked fawns, and no adult males detected; ~10 deer. This represents a 96% reduction from a high of ~225 deer seven 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**

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#### APPENDIX A. Deer Harvest Data 1-2 April 2019, Cayuga Heights, NY

Date	Carcass Tag #	Sex	Age	Location	Notes
4/1/2018	112711	FEMALE	ADULT	WYCKOFF	
4/1/2018	112712	FEMALE	ADULT	HANSHAW	
4/1/2018	112713	MALE	ADULT	N. TRIPHAMMER	
4/1/2018	112714	FEMALE	ADULT	OAK HILL	CORNELL 312
4/1/2018	112715	FEMALE	ADULT	WYCKOFF	
4/1/2018	112716	FEMALE	FAWN	KLINE	
4/1/2018	112717	FEMALE	ADULT	WINTHROP	
4/2/2018	112718	MALE	ADULT	SUNSET PARK	
4/2/2018	112719	MALE	FAWN	S. TRIPHAMMER	
4/2/2018	112720	FEMALE	ADULT	S. TRIPHAMMER	
4/2/2018	112721	FEMALE	ADULT	S. TRIPHAMMER	
4/2/2018	112722	MALE	ADULT	WYCKOFF	
4/2/2018	112723	FEMALE	ADULT	HIGHGATE	
4/2/2018	112724	MALE	ADULT	HIGHGATE	
4/2/2018	112725	MALE	FAWN	HIGHGATE	