CITY OF AUSTIN
WHITE-TAILED DEER MANAGEMENT PROGRAM

BALCONES CANYONLANDS PRESERVE ANNUAL REPORT
Fiscal Year 2001-02

The City of Austin
Water and Wastewater Utility
Wildland Conservation Division
Balcones Canyonlands Preserve Program

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City of Austin
White-tailed Deer Management Program
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Executive Summary

Average density estimates for white-tailed deer on BCP tracts in 2000 and 2001 significantly exceed the expected carrying capacity for eastern Edwards Plateau habitat defined by Texas Parks and Wildlife Department. Without white-tailed deer population control, change in the native plant communities will continue to impact wildlife habitat and surface hydrology.

Methods of control, including relocations, immuno-contraception, public hunts and control permits were evaluated prior to the implementation of the harvesting program. The City applied for and received an Antlerless and Spike-Buck Deer Control Permit for the pilot site. This permitted population reduction actions during legal hunting hours of the open white-tailed deer firearm-hunting season. The management goal was to reduce deer populations without injury to any person or property. Harvesting of white-tailed deer began on December 14, 2001 and was concluded on January 14, 2002. A total of 14 days were available for hunting. A total of fifteen deer were harvested on Balcones Canyonlands Preserves on eight different days. All animals were taken humanely.

This year's harvesting project was well planned and implemented. The objectives to implement a population management program and to manage white-tailed deer populations were fully achieved.

In conclusion, white-tailed deer populations were reduced, mitigating the negative impacts to species of concern and water quality and water quantity while benefiting the white-tailed deer herd health and habitat on BCP land. The harvested meat was donated to the Capital Area Food bank and distributed by them to the public, providing high quality protein to needy individuals in the Austin area.

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I. Introduction

Spotlight census data for all areas of the Balcones Canyonlands Preserve (BCP) surveyed for the past three years demonstrate an extremely large population of white-tailed deer (see White-tailed Deer Survey Program, December 2002). Average deer population density for the BCP over the three-year period was estimated to be one white-tailed deer per 3.7 acres.

Biologists for the Texas Parks and Wildlife Department (TPWD) state that white-tailed deer densities approaching one deer for every 12-15 acres would be an acceptable average number of deer in relation to the carrying capacity of the land. Current scientific literature suggests that forest regeneration requires a ratio of one deer per 42 acres. The BCP survey estimates significantly exceed the expected carrying capacity for eastern Edwards Plateau habitat as defined by Texas Parks and Wildlife Department.

As the white-tailed deer populations continue to increase so does the threat to the environment, human health and overall safety. When white-tailed deer populations exceed the habitat's carrying capacity desirable vegetation such as native forbs and woody shrubs are reduced and ultimately eliminated. As this occurs, species such as Ashe juniper invade and occupy these sites due to a lack of competition, thereby limiting the ability of preferred species to recover. As the species composition changes so does the quality of the habitat. If white-tailed deer populations are not controlled long-term change in the native plant communities will continue to impact nesting of songbirds, including golden-cheek warbler and black-capped vireo. Likewise, as vegetation communities shift there is a change in hydrology affecting the amount of available water for runoff and deep percolation into the water cycle, and negatively impacting water quality and quantity.

Several methods of control, including relocations, immuno-contraception, public hunts and control permits were evaluated prior to the implementation of the harvesting. The selected method was to obtain an Antlerless and Spike-Buck Deer Control Permit from TPWD. This would allow the reduction of white-tailed deer populations during legal hunting hours of open white-tailed deer firearm-hunting season, including an extended season. The Antlerless and Spike-Buck Deer Control Permit allow landowners to harvest antlerless and spike buck deer from October 20, 2001 through January 20, 2002. The City submitted an Antlerless and Spike-Buck Deer Control Permit application for one BCP management macrosite as a pilot project. The management goal was to reduce white-tailed deer populations without injury to any person or property. Harvesting of white-tailed deer began on December 14, 2001 and was concluded on January 14, 2002.

II. Policy Discussion

The City of Austin (jointly with Travis County) holds an Endangered Species Act Section 10(a)(1)(B) regional, multi-species permit that allows "incidental take" of eight federally listed endangered species and their habitats in Travis County. To mitigate "takings," a total of 30,428 acres will be set-aside in a preserve system, in perpetuity, for endangered species habitat. Of this acreage, 28,428 acres is to be managed for golden-cheeked warbler (GCW) habitat and 2,000 acres is to be managed for black-capped vireo (BCV) habitat.

The City owns and manages 13,035 acres of these BCP lands. The City donated several existing tracts of parkland to the BCP and purchased the remainder of the 13,000 acres with funds provided by two City bond elections ($20 M and $22 M in 1993), federal grants, and BCP Participation Certificates.

The City of Austin and Travis County, as permit holders, are responsible for overseeing implementation of this regional 10(a) permit, which includes ongoing biological management of the preserve. The biological management of the BCP entails ensuring the health of the vegetative habitat on the preserve lands both for GCW and BCV habitats. GCWs require a mature oak-juniper forest, which includes many deciduous hardwood and shrub species as a component. BCVs require a young, successional habitat of shin oaks, sumacs, and other shrubs.

For many years, the over-browsing of young deciduous trees and shrubs by excessive white-tailed deer populations has severely impacted the natural regeneration of native plants that are part of the GCW habitat. It also interferes with land management attempts to establish new BCV habitats. Lowering the population of white-tailed deer is a stated goal of the City's BCP Land Management Plans and is a critically important component in ensuring the health of a balanced Balcones Canyonlands Preserve ecosystem.

III. Methods

Six deer feeders were set up and maintained (three each on Reicher and Bohls tracts). Two weeks prior to the start of harvest, shooting lanes were designated and flagged along the main roads on the Bohls and Reicher tracts. These shooting lanes were also baited with corn at least two weeks prior to the start of the harvesting program. In addition some clearing of brush was necessary to widen shooting lanes. Protocols were established at BCP properties where either one or two stand hunters were in the field. BCP Park Police were informed of times of hunt, locations, and movements of the stand hunters. Both hunters were in radio contact and knew each other’s location at all times. Park Police notified hunters when tenants of Reicher Ranch needed to travel roads and hunters observed these safety quiet times. Prior to each day’s hunt a safety meeting was held which outlined each person’s tasks and all safety measures to be taken. Safety protocols were followed without violation at BCP. Park Police were stationed at the gated entrance to the properties at all times. At the close of each hunt the shooter reported to the Police the log for the outcomes for each day.

The majority of shooting at BCP properties was done from stands located uphill from feeders. Under this type of hunt the shooter had complete control of the circumstances surrounding each

shot. Under this type of shooting 95% to 100% of deer that are shot at should be retrieved. Some shooting also took place from a truck, in the designated shooting lanes along the main roads. Typically deer that were harvested on the BCP properties were field dressed and processed the following day at Rutherford Ranch. Processing included skinning and quartering the carcass. The quartered deer were placed in individual bags, refrigerated, and taken to a local meat processing facility. Carcasses were taken to a permitted landfill.

IV. Project Results

Initiation of the pilot white-tailed deer population management project for the City's Balcones Canyonlands Preserve lands occurred on the Reicher Ranch and Bohls Ranch tracts of the South Lake Austin Macrosite. Oak-juniper woodlands, containing scrubby uplands and lushly wooded canyons with ephemeral streams and river frontage, characterize these two parcels, totaling 1,270 acres. Portions of both tracts contain prime examples of ideal golden-cheeked warbler habitat found on the eastern edge of the Edwards Plateau.

Although other BCP macrosites have higher deer per acre densities, this site was chosen for the initial white-tailed deer population management project for the following reasons. In comparison to most BCP tracts it is a remote location. There is a low density of development immediate to the tract's boundaries. It was possible to completely secure the site from accidental public intrusion during the harvesting operation. However, the topography limited the ability to observe and approach deer from a distance and, in turn, limited the ability to harvest large numbers at a time. Most of the harvesting hours were spent at stationary stands, which preclude taking large numbers of deer at a time.

The managed harvest operation for the South Lake Austin Macrosite began on December 17, 2001, and concluded on January 14, 2002. Harvests were conducted on eight days during this period. A total of fifteen deer were harvested. The most deer harvested on any given day was four. Two hunts resulted in no deer for the day.

Implementation of this project on the South Lake Austin Macrosite was fully successful. Populations of white-tailed deer were effectively reduced. There were no injuries to staff or the general public. Furthermore, there was no public or private property damage.

Usable portions of the harvested deer were donated to the Capitol Area Food Bank through the Texas Hunters for the Hungry Program. As a result of management harvest on BCP the City of Austin BCP Program was able to provide, through the cooperating food bank, high quality protein to needy individuals in the Austin area.

VI. Conclusion

The white-tailed deer harvesting project was well prepared and initiated immediately upon City Management approval. Throughout the project, safety was the number one concern. A management policy was established and implemented with interdepartmental cooperation and support. All animals were killed humanely. In conclusion, white-tailed deer populations were reduced, minimizing negative impacts to listed species, and water quality and quantity, while

benefiting the white-tailed deer herd and all habitats. All meat was donated to the public through the Capital Area Food bank.

As with any pilot project there are always obstacles, learning experiences, and alternative methods to consider. Opportunities to improve this management action will be addressed and continuously evaluated in the future. The City of Austin BCP Program will continue the white-tailed deer management program in FY 2003.