

South Carolina Department of
Natural Resources



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March 31, 2022

Timothy Gillette
Operations Director, Tega Cay
7725 Tega Cay Drive
Tega Cay, SC 29708

Dear Tim:

Thanks again for your efforts related to the deer spotlight survey conducted at Tega Cay on March 21. My comments and those of Don Cockman concerning the survey and the deer situation on the property follow.

On March 21, 2022 the spotlight transect method was employed to estimate the deer population at Tega Cay located in York County, South Carolina. The spotlight transect technique is widely used by biologists in the Southeast as a technique for estimating the relative abundance of deer on a given area. Although I will provide a population estimate, please keep in mind that the survey technique should be used only as an index to relative abundance rather than an actual count of deer on the area. In other words, it is best to look at population trends (up, down, stable) over time rather than getting locked into specific estimates at a given time.

The Tega Cay survey lasted 2.5 hours (8:32 pm-11:02 pm) and was carried out over 7 transects (survey lines) totaling 5.2 miles which should have provided for good coverage of the representative habitats on the property (see map of survey routes). Total acreage surveyed was estimated at 214 acres of 1,600+- acres encompassed by the property. A total of 101 deer were sighted which calculates to an estimated one deer per 2.1 acres surveyed (301 deer per square mile) and extrapolated to approximately 700 deer on the entire property. Please see the attached table which summarizes the data associated with the survey.

Due to the late winter timing of the survey observational data related to sex ratios and doe to fawn ratios were impossible. This is due to the fact that adult males had lost their antlers and fawns born last spring were no longer discernable from adult females due to their similar size. Observations of physical characteristics indicated that deer are generally in good condition. However, there was significant browsing damage noted on the property which is indicative of a very high deer population. Additionally, at this high

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population level deer-human conflicts such as homeowner complaints of landscape damage, vehicle accidents, and overall reduced tolerance to deer are likely.

Based on experience from numerous resort/residential properties located primarily on the South Carolina coast, the deer population on Tega Cay is extremely high. Many communities initially have densities of one deer per 3-5 acres (100-200 deer per square mile) prior to management activities (sharpshooting). Following an initial reduction in the population it seems that communities generally try to keep the density lower than one deer per 15 acres (40 deer per square mile). Also, communities can vary with respect to the level of tolerance they have for deer with some having higher or lower tolerance. This can affect the desired deer density brought about by management actions.

We would suggest replicating the survey a couple of times during late summer (August/September) to bolster these findings. Conducting surveys in late summer will also allow for sex ratios and doe to fawn ratios to be observed. Doe to fawn ratios can provide an estimate of productivity and potential for population change.

I hope you find these comments satisfactory. Please do not hesitate to contact me if you have questions concerning the survey technique or analysis.

Sincerely,



Charles Ruth
Certified Wildlife Biologist®
Big Game Program Coordinator

Cc: Jay Cantrell
Don Cockman
Sam Stokes, Jr.