

United States Department of Agriculture  
Animal and Plant Health Inspection Service  
Wildlife Services

**Summary of the White-tailed Deer Count in Mayfield Village, Ohio  
9 March 2021**

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The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) was requested to conduct a count of white-tailed deer (*Odocoileus virginianus*) within Mayfield Village, Ohio. The objective of the count was to provide the City with an index of the deer population to assist with the City's assessment of white-tailed deer damage issues.

## **Study Area**

Mayfield Village, Ohio is located in northeast Cuyahoga County. Mayfield Village spans an area that is 3.95 square miles in size. The City is largely comprised of residential and industrial properties. Green space is scattered throughout and consists mainly of community parks, a cemetery, and the Cleveland Metropark's North Chagrin Reservation.

## **Methods**

Wildlife Services utilized two observers with handheld thermal imagers to identify and count deer along a pre-determined route. The route was created to cover as much of the City as possible and to minimize the possibility of counting deer more than once (Figure 1). The number of deer observed as well as their approximate locations were recorded on a map of the City.

## **Results**

The deer count occurred on 9 March 2021 between 18:30 and 21:00. A total of 61 deer were observed. An underlying assumption for many survey techniques designed to estimate deer abundance is that deer are evenly distributed across the landscape. To that end, WS used Arc GIS to approximate the total area of the City that was observed from the route with the thermal imaging equipment. It is estimated that 76% of the available area in the City was included in the count. Wildlife Services concludes that this count yields a range estimate of 61-80 deer within the Mayfield Village at the time this count was conducted.

Of note, 22 deer, or 36% of the total number of deer observed, were located west of Interstate 271 in the southwestern corner of the City. This area represents approximately 1/10<sup>th</sup> of the City's total land area. Wildlife Services did observe 3 deer outside of Mayfield Village's political boundary. Those deer were included in the count summary because of their proximity to the City. Figure 2 below contains a summary of the number and location of deer observed in Mayfield Village during the WS deer count.

## **Discussion**

Weather conditions during the survey were favorable for deer movement. Deer were observed to be on their feet and actively feeding throughout the duration of the count. Deer that are active are more likely to be observed.

It should be noted that there were a few large areas within the City that WS could not fully access to count deer. Those areas included a portion of the Cleveland Metropark's North

Chagrin Reservation, located in the northwest corner of the City. The inability to adequately access these areas is reflected in the count range estimate above.

### **Recommendations**

White-tailed deer population estimates/counts should be interpreted in context with other units of measure for deer damage, such as deer vehicle accident (DVA) records, deer carcass collections and property damage complaints. It is recommended that the City further evaluate DVA records, deer carcass collections and property damage complaints as population indices. These indices may be used to identify specific geographical areas within City that support higher than recommended numbers of deer or deer that may pose an elevated risk to public safety.

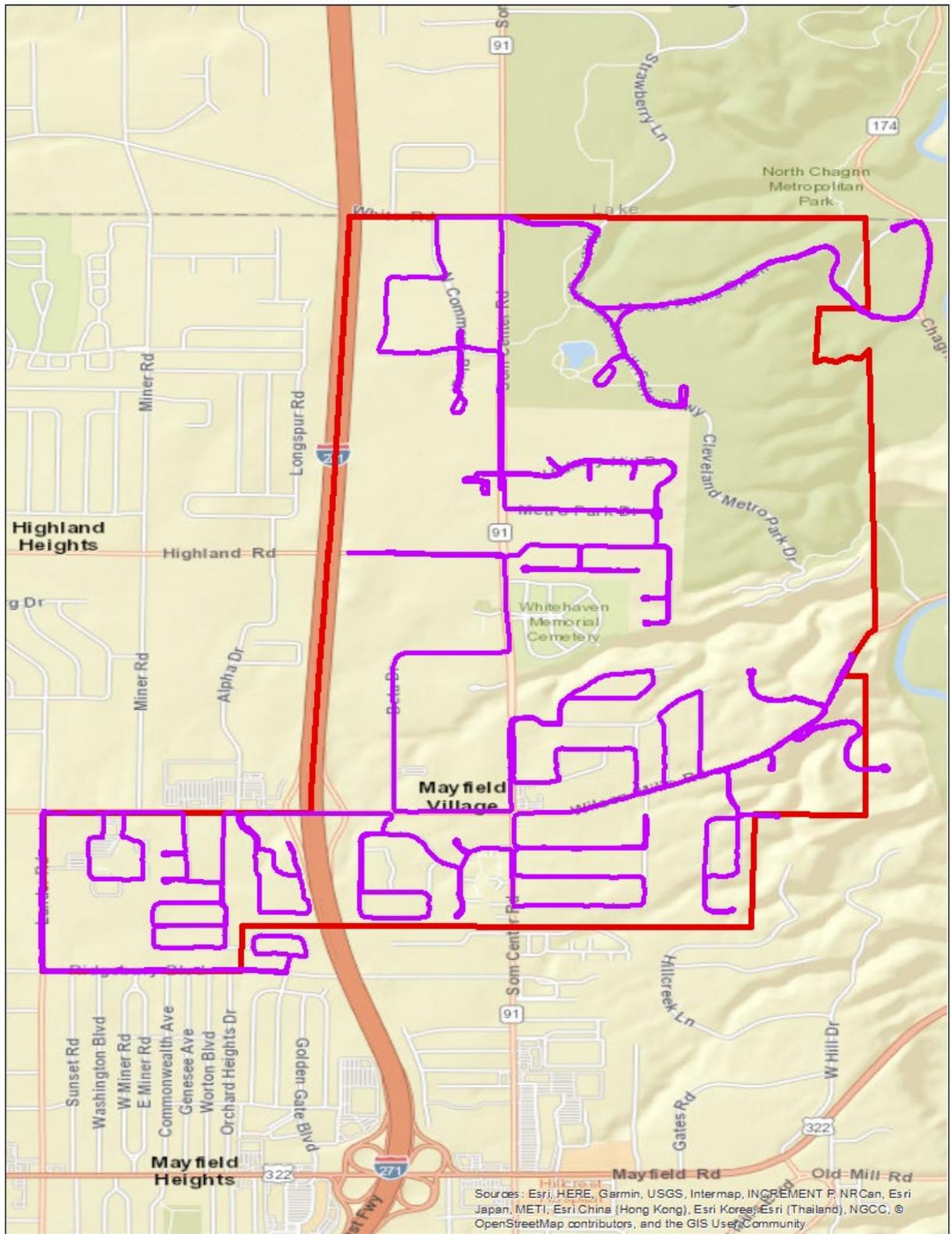


Figure 1. A map showing the route (purple) in Mayfield Village, Ohio that was used to conduct the white-tailed deer count on 9 March 2021.

