

Deer crashes have been one of the highest crash types on county highways in recent years. There are a number of factors which may influence deer crash rate, including herd population, herd migration, herd location, roadside vegetation management, roadway factors (speed limits, lighting, etc.), driver education, use of deer crossing deterrent devices (reflectors, scent boxes, vehicle whistles, wildlife underpasses, etc.), active warning devices such as motion detectors/warning light or static warning signs. Traditionally, static warning signs have been installed in areas with higher deer-vehicle crashes (DVCs). There has been much debate over the usage of static deer crossings signs and their effectiveness. Many transportation professionals recognize the fact that warning signs are most effective (result in alteration of speed and/or path choice) when there is an obvious danger ahead (examples: curve or turn). The use of warning signs that alert drivers to sporadic or general possibilities (examples: deer crossing and slow children) have been shown to not have a consistent impact on driver behavior. The widespread use or sign proliferation also reduces the effectiveness of the sign and leads to drivers disregarding the signs. Several states and agencies have performed studies to assess the effectiveness of static deer crossing warning signs. The studies have concluded that the usage of static deer crossing warning signs do not generally reduce vehicle speeds (one measure of warning sign effectiveness). As a result, the studies have yielded no reduction in DVCs.

### SUPPORTING DOCUMENTATION

Static sign studies have been performed by the following agencies:

1. *Assessing the Effectiveness of Deer Warning Signs*. Published by Kansas Department of Transportation and University of Kansas at Lawrence, April 2006.
2. *Wildlife - Vehicle Collision and Crossing Mitigation Measures: A Toolbox for the Montana Department of Transportation*. Published by Montana Department of Transportation and Montana State University, May 2007.
3. *An Ecological Landscape Study of Deer-Vehicle Collisions in Kent County, Michigan*. Published by Kent County Road Commission and White Water Associates, Inc., January 2004.
4. *Deer Crossing Signs and Technologies*. Published by Deer-Vehicle Crash Information Clearinghouse (DVCIC), Maintained by Texas Transportation Institute, [www.deercrash.com](http://www.deercrash.com)
5. *Deer Avoidance: The assessment of real world enhanced deer signage in a virtual environment*. Published by Minnesota Department of Transportation, <https://www.lrrb.org/pdf/200413.pdf>

Several dynamic types of deer crossing signs are currently being explored as potential countermeasures and are discussed in the studies listed above. These types of signs have been designed to activate when deer are detected near the roadway. Studies are taking place in Indiana, Minnesota, Montana, Pennsylvania, Utah, and Washington. The development of methods to control car/deer collisions is continuing to evolve, and over time policies such as this will be subject to change. At present, due to funding limitations, Fond du Lac County is not utilizing dynamic deer crossing warning sign systems. Fond du Lac County will consider issuing a permit to an entity to pursue the usage of dynamic deer crossing signs.

One effective countermeasure pointed out in the Kansas study is the usage of public awareness techniques to educate the motoring public regarding the seasonal and time of day characteristics of deer-vehicle crashes. This could be accomplished effectively through the different types of media outlets.

### POLICY

Based upon the findings of the various studies mentioned above, Fond du Lac County will implement the following policy for usage of static deer crossing warning signs:

1. No new static deer crossing warning signs will be installed on county highways.
2. Static deer crossing signs that are currently in place will be allowed to remain until the end of their useful life or when opportunities for removal are available. These opportunities would include sign knockdowns and improvement projects.