

## Deer Crossing Signs

### Issue

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The Minnesota Department of Public Safety, Office of Traffic Safety states that 2,141 deer-vehicle crashes were reported in 2015, resulting in 6 fatalities. All 6 fatalities involved a motorcycle. Additionally, in 2015, there were 289 personal injury crashes and 1,846 reports of property damage crashes of \$1,000 or more that involved deer. Many more deer-vehicle crashes go unreported. Several factors influence the deer crash rate, including:

- Herd population, migration and location
- Roadside vegetation management
- Road factors (i.e. curves, hills, lighting)
- Driver behavior (inattention, speeding)
- Use of deer crossing deterrent (reflectors, wildlife underpasses)
- Motion detection system (deer crossing signs with beacon)

Historically, MnDOT installed deer crossing signs on Minnesota highways based on areas reported to have higher deer-vehicle crashes.

Over the years, there have been questions regarding the effectiveness of the static deer crossing signs. DOTs acknowledge that warning signs are most effective when they alert drivers to an obvious danger and drivers reduce their speed. Signs that alert drivers to infrequent encounters or possible situations, such as deer crossing, children at play, or playground warning signs do not have a consistent impact on driver behavior. Widespread use or misuse of warning signs reduces their overall effectiveness.

### Support

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Research has shown that deer crossing warning signs do not reduce deer-vehicle crashes. Signs alone are ineffective at slowing people down or changing driver behavior. The following is a list of specific research studies which are related to deer crossing signs.

1. *Deer Crossing Signs and Technologies* (Published by Deer-Vehicle Crash Information Clearinghouse, maintained by Texas Transportation Institute)

[www.deercrash.org](http://www.deercrash.org)

2. *Deer Avoidance: The Assessment of Real World Enhanced Deer Signage in a Virtual Environment* (Published by University of Minnesota, sponsored by Minnesota Department of Transportation)

[www.its.umn.edu/Publications/ResearchReports/reportdetail.html?id=714](http://www.its.umn.edu/Publications/ResearchReports/reportdetail.html?id=714)

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. *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)  
[http://www.mdt.mt.gov/other/webdata/external/research/docs/research\\_proj/wildlife\\_crossing\\_mitigation/financial\\_report.pdf](http://www.mdt.mt.gov/other/webdata/external/research/docs/research_proj/wildlife_crossing_mitigation/financial_report.pdf)

5. *Assessing the Effectiveness of Deer Warning Signs* (Published by Kansas Department of Transportation and University of Kansas at Lawrence, April 2006)  
[https://ntl.bts.gov/lib/30000/30200/30227/KU036\\_Report.pdf](https://ntl.bts.gov/lib/30000/30200/30227/KU036_Report.pdf)

## MnDOTs Position

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Since 2005, MnDOTs policy has been not to install new static deer crossing warning signs and to remove existing signs that have reached the end of their useful life. MnDOT has researched other methods that had potential to result in fewer deer-vehicle crashes. In 2001, MnDOT installed a deer detection warning system on Highway 23 in Marshall. The system uses the standard deer crossing warning sign in conjunction with a beacon that flashes when deer movement is detected. The system was upgraded in 2007 and showed a 33-57 percent reduction in deer-vehicle crashes. More information on the sign can be found here:

[http://www.dot.state.mn.us/guidestar/2006\\_2010/deer\\_detection\\_and\\_warning\\_system.html](http://www.dot.state.mn.us/guidestar/2006_2010/deer_detection_and_warning_system.html)

MnDOT installed a second sign on Hennepin County Road 121 in Dayton and final report was completed in January 2013. More information on this project can be found at:

[www.dot.state.mn.us/guidestar/2006\\_2010/wildlife-detection-warning-system.html](http://www.dot.state.mn.us/guidestar/2006_2010/wildlife-detection-warning-system.html)

The two deer detection systems installed in Minnesota were costly to maintain, keep operational, covered only a small portion of Minnesota's roads and ultimately were turned off.

Another effective measure cited in other studies is public awareness techniques to educate the community.

The Minnesota Department of Public Safety has a program called Don't Veer for Deer. More information is available here:

<https://dps.mn.gov/divisions/ots/deer-vehicle-safety/Pages/default.aspx>

The Minnesota Department of Natural Resources discourages feeding of deer, drawing them out of their natural feeding and bedding areas:

<http://www.dnr.state.mn.us/wildlife/research/health/feeding/deer.html>