

Montana Department of Transportation  
Research Programs  
October 2011

Experimental Features  
Evaluation Report

**EVALUATION OF STRIETER-LITE WILD ANIMAL HIGHWAY WARNING REFLECTOR  
SYSTEM™ ON REDUCING VEHICLE-ANIMAL COLLISIONS**

**Project Name:** Safety Improvement Project  
Fencing – East of Whitehall

**Project Number:** HSIP 69-1(22)2

**FHWA Project Number:** MT 09-02

**Project Location:** Highway MT 69, P-69, Jefferson County, Butte District:  
Approximate Reference Point 1.72 to 3.1

**Description:** An experimental trial of a wild animal reflector warning system for reducing the number of vehicle and animal collisions.

**Date of Installation:** May – October 2010

**Principal Investigator:** Kris Christensen  
Research Programs Project Manager

**Objective**

Determine the effectiveness of wild animal reflector warning systems for reducing the number of vehicle and animal collisions and the maintenance efforts needed to maintain this type of system. Maintenance costs will be recorded and collected when available.

**Experimental Design**

Installation of the Strieter-Lite Wild Animal Highway Warning Reflector system, consisting of 700 reflectors along MT Highway 69 between reference points 1.7 (just east of Briggs Lane) and 3.1 for a project length of 1.4 miles. Research will document installation shortly after completion and report on any issues based on visual observation. The evaluation phase of the project will encompass a five-year period, including initial observations during and directly after installation.

## **Evaluation**

The site was visited August 3, 2011 by Research staff to observe any visual changes. The reflectors were clean and surrounding vegetation had been mowed (see Figure 1).



**Figure 1- Reflector system cleaned and mowed**

One reflector was knocked down near the beginning of the study area near Briggs Lane on the eastbound side of the road. On the same side of the road, two reflectors had been bent forward.



**Figure 2-Reflector on ground near Briggs Lane**



**Figure 3- Reflector bent forward**



**Figure 4- Reflector bent forward**

### **Project Maintenance**

As mentioned above, the reflectors were cleaned in July 2011 by MDT maintenance staff with windshield washer fluid and a squeegee. The vegetation was also mowed in this general time frame. Mowing of the study area did take longer, approximately a day longer than it did for this area before the installation of the reflector system.

### **Animal Carcass Information**

Carcass data since completion of installation (October 2010) of the reflector system is listed in Table 1. The data will be collected for five years in the study area.

**Table 1- Animal Carcass Data Collected by MDT Maintenance**

<u>Date</u>	<u>RP/MP</u>	<u>Animal</u>	<u>Time of Day</u>	<u>Direction</u>
10/29/2010	2.8	whitetail doe	evening	EB
11/25/2010	2.2	whitetail doe	evening	WB
11/29/2010	1.4	mule doe	morning	EB
12/2/2010	1.4	whitetail buck	evening	WB
1/3/2011	2.8	whitetail doe		EB
1/3/2011	1.7	mule buck		EB
1/7/2011	2.5	whitetail doe		WB
1/14/2011	2.9	whitetail fawn		EB
1/20/2011	1.7	mule doe		WB
2/18/2011	2.0	whitetail buck	evening/dark	EB
2/28/2011	2.1	whitetail fawn	evening/dark	EB
3/8/2011	1.8	whitetail fawn		WB
3/10/2011	2.9	whitetail doe		WB
3/21/2011	2.9	whitetail doe		EB
3/18/2011	1.9	whitetail fawn		WB
6/27/2011	2.5	whitetail fawn		WB
7/20/2011	2.3	whitetail doe		WB