

ITS Program Strategic Assessment Results

FINAL

General Project Information

Project Title	Deer Detection and Warning System
Contract #	89687 (there were 2 previous related agreements and there are related agreements that are currently active. See question #29 response.)
Begin - End	June 2006 – March 2009
Cost	\$162,614.09
Funding Breakdown	50% Federal Earmark, 30% Federal STP, 20% ITS State Match
Partner Match	\$17,000 contribution by the vendor for labor
Project Manager	Ken Hansen
Other Interviewees	SRF Contract: Erik Minge, Mark Gallager Deployers: Craig Gertsema-D8, Eric Drager-Henn. Co. Contract Admin: Ron Bisek, Sue Sheehan
Assessor: Dave Johnson, October 2011	

Project Objectives:

Step 1: Upgrade existing deer warning system hardware to reduce maintenance needs.

Step 2: Implement communications and processing capabilities to enhance system functions.

Step 3: Evaluate Alternative Detectors.

Step 4: Evaluate Sign Format/Technology

Did we do the Right Project?

#	Question	Possible	Actual	Normalize
1	Number of Key Mn/DOT Strategic Objectives?	0-4	2, 3	62.5%
2	Number of ITS Architecture Development Objectives?	0-5	2, 3	50%
3	Fulfill Mandate of Legislature or Mn/DOT Policy?	Yes or No	No	0%
4	na			
5	Results still relevant?	Yes or No	Yes	100%
6	na			
			Average	53.1%

Was the Project Done Well?

#	Question	Possible	Actual	Normalize
7	Met original objectives?	Yes or No	No	0%
8	The current contract has many of the same objectives as the completed contract: less maintenance, more up time, more robust and effective equipment. Did not meet the expectations of district staff in terms of up time and amount of maintenance required.	narrative		

9	Interviewees feel that objectives were not met due to: a. lack of bench testing of equipment before field install b. poor communication between districts and CO	narrative		
10	Completed within original budget?	Yes or No	No	0%
11	Needed new detectors, larger solar panels, and more powerful batteries to replace failing/inadequate equipment from previous project.	narrative		
12	Completed within original schedule?	Yes or No	No	0%
13	Additional time required to test alternate detection technology and complete work in the original scope. Technology vendor was late in supplying new equipment. District perspective: "project was on again off again numerous times". There were 3 contract time extensions.	narrative		
14	Outreach efforts included?	Yes or No	Yes	100%
15	Months from selection to start of work?	<2 - >24	6 mos.	50%
			Average	30%

Did/Will the Project have the Desired Impact?

#	Question	Possible	Actual	Normalize
16	Continue investigation on to deployment?	Yes or No	Yes	100%
17	na			
18	The current contract is fixing the original site and will identify and deploy at a new site in Hennepin County. Maintenance and operations need to be funded and monitored. Deployment in Hennepin County is expected by July 1, 2011.	narrative		
19	District (county) traffic operations and maintenance functions are most directly affected by deployment. Agencies to maintain R/W. SRF to monitor sites remotely.	narrative		
20	The driving public and insurance companies are external customers that would derive benefits from deployment.	narrative		
21	Description of potential impacts if deployed?	Yes or No	Yes	100%
22	Reduced number of deer-vehicle collisions (DVCs).	narrative		
23	Benefit/Cost Ratio estimated?	Yes or No	No	0%
24	Describe any known on-going and one-time costs or benefits?			
	Medium size/complexity costs about \$100,000 for engineering, equipment, installation. Mowing costs at site estimated at \$400/month. Difficult to estimate impact on crash fatalities.	narrative		
25	Other estimates of measurable impacts?	Yes or No	Yes	100%
26	Deer carcass counts were notably reduced during brief test period. District staff believe it was effective. According to the report during the evaluation period there was a 65% reduction in DVCs	narrative		
			Average	75%

Check-Off Questions

#	Question	Response
27	Primary Funding Program?	Innovative Idea Program
28	Addressing rural issues, urban issues, or both?	Rural

#29. Current/Recent Related Projects

Contract #	Title	Contact	Purpose
200045 (previous)	Deer/Vehicle Collisions	Weinholzer Mn/DOT	To test the effectiveness of a new product, the "deer alert sign" in reducing the number of large animal/vehicle collisions.
81655 (previous)	Deer Avoidance Research Use of Motion Detector Flashing Light	Wade UM	To evaluate the potential impact of a new technology (motion detection information relative to the presence of deer in and around major highways) on driver behavior.
TPF-5(120) (active)	Deer Vehicle Crash Information and Research (DVCIR) Center	Knapp Iowa LTAP ?	The DVCIR Center pooled fund project was created to continue and expand the data collection, research evaluation, and information exchange tasks completed by the DVCIC
97545 (active)	Wildlife Detection and Warning – Phase II	Scott SRF, Hansen Mn/DOT	Upgrade, repair, document existing system; Find additional evaluation site; Design and deploy new system at new site; Coordinate with UMD project; Operation, Maintenance Documentation; System Monitoring, Assessment and Support
?	multiple projects	Moen and Zhou UMD	Use of cameras for detection of wildlife near roadway.

Narrative Questions

#	Question	Response
30	Barriers to deployment?	<ul style="list-style-type: none"> -Operation and maintenance costs compete with other priorities. -Agency incurs the costs and the public derives the benefits. -District 8 site far from PM and contractor. -Even though D8 has seen benefits, their past experiences with maintenance issues and long down times have made them cautious about deployment.
31	Conditions supporting deployment?	<ul style="list-style-type: none"> -The problem is quantified/documented. -Completed project has demonstrated some impact on problem. -Technology issues have since been corrected and proven at non-Mn/DOT sites. -New Minnesota site in Metro nearer to PM and contractor. -New remote monitoring capability.
32	Funding to continue investigation?	<ul style="list-style-type: none"> -Yes. Follow-on project is underway. -Installation at 2nd site expected in July 2011.

33	Recommendations to help other projects run better?	-Need better communication between project manager and district staff responsible for deployment site maintenance and operations. -There was too much focus on getting equipment in the field quickly without adequate bench testing.
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Next Steps

The general future direction for this project was determined to be: Redirect (or do further) research on the technology or concept. As a result a follow-on project has been funded and is underway. This new effort includes installing improved technology at the original District 8 site and a new Hennepin County site in June 2011. Agencies will provide site maintenance. The contractor (SRF) will provide remote monitoring and technology maintenance. No specific action items have been identified at this time. However, at the completion of the new project (September 2012) a new strategic assessment will be done.

Complete Wildlife Detection Project.