



HIGHWAY 89 UTAH WILDLIFE CROSSING

Type of Collaboration: Self-Facilitated Collaborative Research Collaboration

Purpose (background)

Objectives

- Reduce wildlife-vehicle collisions by preventing wildlife from entering the highway right of way
- Help prevent the 132 vehicle deer-collisions per year that cost approximately \$8,000.00 damage per vehicle
- Maintain migration routes historically used by mule deer when traveling from summer to winter ranges utilizing existing structures (drainages)
- Determine if different types of structures or fencing are needed
- Pinpoint highest concentration of mule-deer routes – create a manageable project scope

Results

- *Project need recognized by many stakeholders*
- *Legitimate costs/benefits*
- *Data reinforced the magnitude of the problem*
- *Inclusive project for all involved stakeholders*
- *Collaboration and consensus generated basis for funding*

Conveners: Utah Department of Transportation



The ground solution building process. Part of the project success has to be attributed to finding economical and effective solutions that provide a wise use of public funds. There was plenty of ground work prior to the meeting pictured to steer the broader group towards effective solution alternatives.

STAKEHOLDERS

Academia

Utah State University (USU): Dr. Patricia Cramer's research
Determining Wildlife use of Wildlife Crossing Structures Under Different Scenarios

Government

Utah Department of Transportation (UDOT)

Bureau of Land Management

US Forest Service

Kane County

Utah Division of Wildlife Resources (DWR)

Federal Highway Administration

US Fish and Wildlife Services

Grand Staircase Escalante National Monument

Arizona Game and Fish

NGO's

Mule Deer Foundation

Sportsmen for Fish and Wildlife

Private groups also made key contacts to reinforce the need for the project

This case study is based on primary source research and personal interviews with select stakeholders. Opinions expressed about What Worked and Lessons Learned are a combination of those directly expressed by process participants (in italics), and those of The Langdon Group staff who researched and wrote the case study.



PROCESS DESCRIPTION

The problem of high wildlife-vehicle collisions on US-89 east of Kanab was well known for years by Government agencies and the public. It affected the lives of many people. Solutions to the problem had seemed out of reach due to the magnitude of the highway (62 miles from the UT/AZ state line to Kanab) where the semi-annual mule deer migration passed. Because of the problem, two UDOT engineers reviewed research on mule-deer crossings in the area. Research made it apparent that there was a 12-mile zone along US 89 that was crucial to migration routes. Narrowing the scope of the issue created a manageable goal.

While meeting for a different highway project with personnel from Kane County and Grand Staircase Escalante National Monument (GSENM), the UDOT engineers proposed a meeting for all parties to discuss and brainstorm solutions to the vehicle-wildlife collision zone on US-89. Both Kane County and GSENM personnel recognized the problem and readily agreed that mitigating vehicle-wildlife collisions in this area was a manageable goal.

The initial meeting was held in May 2009 in Kanab, Utah at the Grand Staircase-Escalante National Monument (GSENM) office with the purpose of brainstorming solutions to the mule-deer vehicle collisions. The meeting helped build consensus that within the crucial 12-mile zone, escape ramps, existing drainage structures, and fencing should be used to encourage safe-passage for wildlife.

Focus then shifted to project funding. UDOT identified approximate project costs to establish the magnitude of the funding needed. UDOT requested and was granted \$625,000 of Enhancement Funding from the Utah Transportation Commission under the condition that other funding partners would be obtained for the remaining project costs. The momentum of the initial funds prompted further funding including: \$130,000 from Arizona Game & Fish and non-governmental wildlife groups; \$100,000 from Utah Division of Wildlife Resources and wildlife groups; construction materials and labor from Kane County estimated at a value of \$125,000; GSENM helped with an estimated \$10,000 in needed environmental work to establish the feasibility of the project; \$50,000.00 from Utah's Conservation Permit Program; and volunteer help with maintenance of structures valued at \$150,000.

Additionally, Grand Staircase Escalante National Monument applied for a Federal Highway Administration (FHWA) grant available for public roads on federal lands. UDOT leadership approved the use of this funding source (a number of applications were made for the funds) in the amount of \$1,525,000 to fund the remaining project needs for Phase 1. Utah's Senator Orrin Hatch provided a letter of support for the application.

The funding enabled the installation of escape ramps every 1.5 to 2.5 miles, the construction of three new wildlife underpasses, and the expansion of four existing structures at locations where culverts for drainage crossed the highway. The existing fence was upgraded to wildlife exclusionary fencing along both sides of the problematic 12-mile length of the project area.

Communication between all partners was maintained throughout each phase of the project through conference calls and emails. UDOT also sent stakeholder update letters to public and private interested parties. Additionally, contacts were made to public agencies from a variety of sources expressing reasons why this project needed to be funded.

The project combined use of studies, site monitoring cameras, and collaboration between multiple agencies to determine where and why wildlife crossings were needed. The initial meeting on collaboration followed by frequent communication and project monitoring helped mitigate the mule deer crossings and prevent collisions. It is estimated that an average of 102 accidents are prevented each year.



WHAT WORKED?

- Self-facilitation.
- **Sharing objectives and maintaining communication:** Committee members agreed upon and supported project objectives. *Goals stayed realistic without sacrificing safety.*
- **Adaptive process of collaboration:** By collaborating between agencies and using updated data and research, strategies could be altered and adapted to best suit the changing needs of the project and its stakeholders.
- **Information sharing:** UDWR shared updated maps and wildlife data with project partners. Data sharing allowed for informed and improved decision making.
- **A common knowledge base:** The site monitoring cameras allowed for current information to be implemented into the project. The USU study *Determining Wildlife use of Wildlife Crossing Structures Under Different Scenarios* recommendations are now part of Utah's standard operation procedure for wildlife crossings. The research answered questions on a statewide scale that helped UDOT and other agencies avoid time-consuming and costly trial-and-error processes.



LESSONS LEARNED

- **Funding does not flow until needs are identified and consensus is reached.**
- **Support from all levels of project participation is essential for successful collaboration.** *Leadership responded to widespread grassroots support that was communicated in numerous ways, including testimony from local government and businesses.*
- Strong leadership striving for consensus is necessary for a self-facilitated group.
- Empowering staff to lead generates solutions. *Leadership provided an environment of support to allow staff to work towards addressing a public need.*
- Communication and relationship-building are essential for collaborative success: *UDOT and DWR leadership listened to constructive, valued, and documented input from staff.*
- **The need was legitimate and the proposed solution was shown to have short-term payback with a high benefit-cost ratio.**
- **Public interest is a strong basis for finding common ground:** *Leadership responded in a positive manner to well-prepared presentations by agency staff that demonstrated public interests being served.*
- **Sharing information among collaborative partners promotes informed and efficient decision-making.**
- **Involve all parties:** *"We cannot come up with a great solution unless we have all parties involved. This project has been a great example of what our agencies can do when we collaborate to find solutions. It is the epitome of collaboration and building partnership. It would have been impossible for any of the agencies to have independently completed a meaningful project."*

Report: <http://blog.udot.utah.gov/wp-content/uploads/2014/09/WGA-Utah-Case-Study-April-2014-1.pdf>

