



# Getting From **One Side** of the Road to the **Other**

**Finding ways to avoid human/wildlife collisions on our railways and roadways.**

**By Rich Clough**

Facing the daily challenges of their environments, including predators and human hunters, wildlife have adapted their behavior to survive. The last hundred-plus years have added some additional challenges with the appearance of automobiles, trains, roads, and rail beds in landscapes where wildlife live. Human survival is part of the equation, too. With today's higher vehicle speeds enabled by better highways and interstates, humans are more vulnerable to losing life and limb in collisions with four-legged critters trying to get from one side of the road to the other.



**The Mineral County Montana Wildlife Movement Area Working Group finalizing the map project.**

The expense of repairing vehicles is staggering when the frequency of such encounters is taken into account. Some estimates peg the repair cost at a minimum of \$2,500 per crash, but many argue that this figure is way too low. Despite these debates, we know that the total costs are high. A 50-mile section of Highway 93 south of Missoula, Montana, has nearly 1,000 road kills annually, which translates to \$2.5 million in vehicle damages.

I personally have had two such encounters. The first totaled my vehicle, and the second cost slightly more than the \$2,500 figure in repair costs. Repairs also drive up our insurance costs. If there's a bright side, it's that tow-truck drivers and body shops are seeing a boom in business!

Recognition of the increase in vehicle/wildlife collisions has encouraged transportation departments, wildlife groups, concerned citizens, and non-profit organizations to search for ways to make both human and wildlife travel safer. The Boone and Crockett Club sponsored one such effort beginning in 2003, with funding provided by the Kendall Foundation and the National Fish and Wildlife Foundation. Melanie Parker of Condon and Gary Wolfe of Missoula were the original project contractors, and they turned the effort over to my company, Cottonwood Consulting, in January 2005.

The project was aimed at establishing working groups composed of local folks who

were knowledgeable about wildlife movements in their areas, and involving them in identifying currently-used crossings. The groups included landowners, biologists, delivery drivers, road maintenance personnel, and other interested individuals. The movement areas were identified by actually driving and walking along roadways; listening to landowners who observed wildlife year-round; identifying areas with high numbers of road-killed animals, both visually and from transportation department records; and, examining data gathered by other agencies that included useful information, such as seasonal movements.

The groups were also charged with finding ways to improve the success of crossings if possible. Many of the areas identified included private lands on one or both sides of highways. The working groups were challenged to find ways of maintaining the safer crossings in the face of changing land-use practices and sub-division pressures. The safer crossings are those with usable underpasses or bridges, good sight distances, or other features that reduce the potential for wildlife collisions.

Though the focus was on the movements of observable species such as deer, elk, and moose, it was recognized that many species, including small mammals and turtles, are affected during seasonal migrations. Predators were also known to use the same areas as they followed prey species. Road-kill data had recorded numerous unsuccessful crossings by bears, mountain lions, and gray wolves

Working groups in Montana were established in Mineral County and the Ninemile area of Missoula County, Sanders County, and the McArthur Lake area in Boundary County, Idaho. The Mineral County and Ninemile groups concentrated on Interstate 90 west of Missoula, while Highway 200 through Sanders County and Highway 95 between Sandpoint and Bonners Ferry, Idaho, were worked on by the other two groups.

The groups generated GIS maps depicting high-use wildlife movement areas, and provided the information to several interested parties. An accompanying summary of the identified areas gave additional information for use by decision makers; for example, seasonal patterns of wildlife in the areas and the species that most frequently used the crossings.

The Montana and Idaho Transportation Departments were given maps and formal presentations were delivered to the respective county commissioners.

Land-use planning offices also received maps and an explanation of why movement areas should be considered in reviews of sub-division requests. Commissioners and planners were target audiences since new highway projects or land-use changes would likely have the greatest impact on the areas identified. The information was also given to the Forest Service, wildlife agencies, and state land departments to help in their land-use planning or for commenting on highway projects.

Other groups interested in maintaining or designing viable crossings that incorporated private lands were provided with maps. The hope was that they might assist in finding solutions to wildlife movement challenges that are surfacing because of rapidly occurring land-use changes

The project made many people aware of the problems being addressed by the working groups. Public forums were conducted to share the work done, and newspapers covered the progress of the groups. Transportation departments shared new design options with the participants. These included high fences to funnel wildlife to underpass and overpass structures, and "jump outs" for wildlife to escape off highways should they somehow manage to get over or under a fence.

The real success of the project has been the continued involvement of some

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working groups and individual members in commenting on highway projects and proposed land-use changes. That involvement has led to redesign of subdivision plats to better accommodate wildlife needs, and efforts to use conservation easements to preserve critical wildlife corridors. It has also influenced highway reconstruction plans and signing projects that hopefully will reduce human injury and death associ-

*Wildlife Jump Out*



*High Fence Leading to Wildlife Underpass*

ated with wildlife collisions and avoidance maneuvers.

Similar efforts are now occurring in other areas of Montana, and the issue has gained national attention. The Western Transportation Institute located at Montana State University in Bozeman, Montana, hosted a Road Ecology Workshop in March of this year. The workshop included information on new technology such as wildlife motion sensors that trigger warning lights, and new highway crossing-structure designs. It's all aimed at increasing safe passage for both motorists and wildlife.

While it may be impossible to eliminate the hazards associated with meeting wildlife head-on, these efforts by concerned and creative people may help clear the road ahead. ■

Rich Clough, a graduate of the University of Montana, spent 31 years in state government before forming Cottonwood Consulting LLC. His efforts now focus on meeting facilitation, conflict resolution, and management consulting. His work on the Wildlife Movement Area project was coordinated through the Boone and Crockett Club.