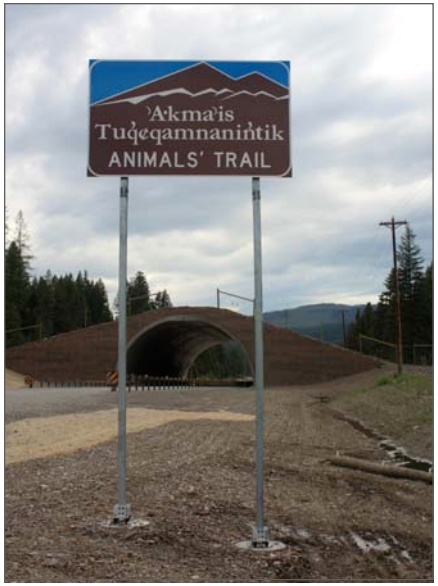
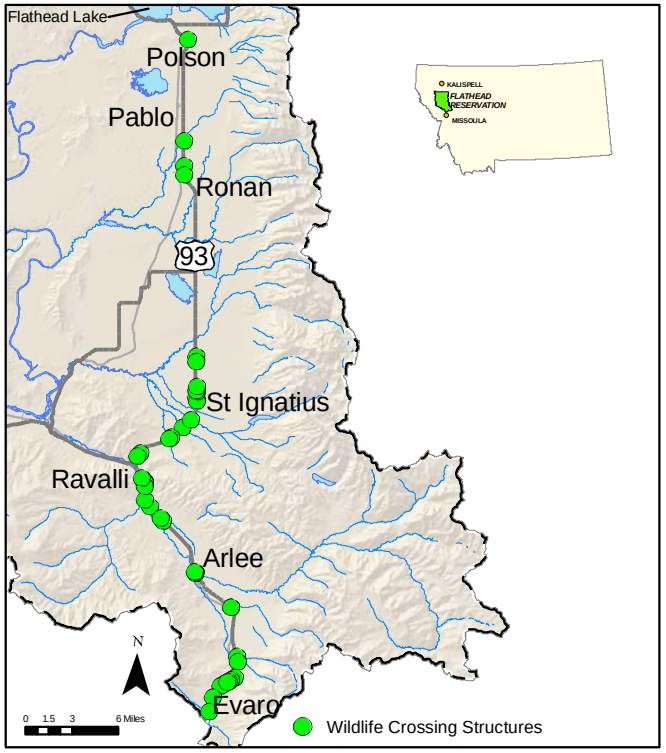
Why Mitigation on US 93?

In the 1990s, with U.S. Highway 93 vehicle accident percentages above national highway levels, the Montana Department of Transportation (MDT) proposed an expansion of the highway. This area was entirely within the boundaries of the Flathead Indian Reservation (FIR), home to the Salish, Pend d'Oreille, and Kootenai people under the title of Confederated Salish and Kootenai Tribes (CSKT). In December 2000, the CSKT, MDT, and Federal Highway Administration (FHWA) signed a memorandum of agreement that enabled the construction of sections of partial two-lane highway and partial four-lane divided highway. It included wildlife mitigation measures such as underpasses, an overpass, wildlife fencing, jumpouts, and wildlife crossing guards across over 56 miles of highway.



These mitigations help address the CSKT's concerns over potential adverse effects on wildlife and wetlands through wildlife mortality and increased fragmentation of the reservation's wildlife habitat. Research is underway to determine the effectiveness of the mitigation (see http://www.mdt.mt.gov/research/projects/env/wildlife_crossing.shtml).



For more information on US 93 mitigation, please see these websites:

CSKT:
www.cskt.org/wlc.htm

MDT:
www.mdt.mt.gov/pubinvolve/us93info/

Western Transportation Institute:
www.westerntransportationinstitute.org/research/roadecology/

This is an effort from the People's Way Partnership. The Partnership includes: CSKT, Western Transportation Institute, and Defenders of Wildlife. The brochure is funded by grants from: Yellowstone to Yukon Conservation Initiative.

US Highway 93 Wildlife Mitigation

Wildlife considerations in highway design reduce animal-vehicle collisions and allow wildlife to cross the highway safely

What is Wildlife Mitigation?

Mitigation, in relation to highway reconstruction efforts, are efforts intended to reduce known impacts to wildlife species or their habitat (such as a stream or wetland). US 93 wildlife mitigation efforts are directed at reducing the impacts on the natural environment, reducing wildlife-vehicle collisions and providing safe crossing opportunities for wildlife.

Mitigation measures include 41 fish and wildlife-crossing structures, including 40 underpasses of various dimensions and types, as well as one overpass.

Eight miles of road with 8-foot high wildlife fencing on both sides keeps wildlife from entering the highway and directs them towards crossing structures.

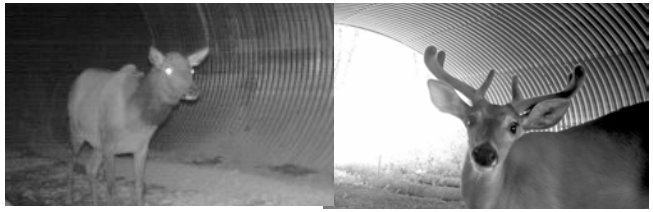
Dozens of "jump outs" allow wildlife to jump to the other side of the fence safely should they somehow be caught in the fenced road corridor.

Wildlife crossing guards modeled after cattle guards or "Texas gates" discourage deer and other hoofed mammals from entering the fenced road corridor at access roads.

Why is mitigation important here?

The FIR is home to a rich diversity of wildlife species, including large mammals such as deer, elk, moose, black bears, and grizzly bears, and a range of amphibian, reptile, and bird species, many of which have been hit by vehicles. Between 1998 and 2010, four grizzly bears were killed on US 93. Crashes with deer are the most common wildlife-vehicle collision along this stretch of road. Western painted turtles have also suffered high mortality (300-400 killed annually) with breeding ponds and feeding ponds located on both sides of US 93.

Does the mitigation work?



Between May 2008 and December 2009, eleven underpasses were monitored for wildlife use. Wildlife use of the structures was substantial with 3,000 deer crossings, 1,500 coyote crossings, 300 bobcat crossings, 200 raccoon crossings, and 200 black bear crossings. Other species that used the crossings include mountain lion, elk, grizzly bear, moose, badger, river otter, muskrat, beaver, skunk, rabbit, and various bird species. For the wildlife mitigation measures to be considered successful, goals have been set by the CSKT, MDT, and FHWA, and more data need to be collected and analyzed before the researchers can conclude whether the mitigation measures have indeed reached those goals.

How were the locations selected?

Crossing structures were placed in areas that have a history of wildlife crossings and wildlife mortality, and/or locations where the surrounding landscape and land use was best suited for the crossing structures. Structures were typically located at stream crossings and areas with protected habitat on both sides of the road.

Were they expensive?

Wildlife mitigation measures cost money. However, a goal of the mitigation is to reduce wildlife-vehicle collisions; beyond the value of enhanced human safety, collisions can be very expensive. A mitigation measure is an investment that may pay for itself over time in reduced wildlife-vehicle collisions.

Is Wildlife Mitigation for highways Used Elsewhere?

The most recognizable wildlife crossings in the world are found in Banff National Park in Alberta, Canada, where dozens of wildlife crossings were constructed since the 1980s. Numerous European countries have used crossing structures to reduce wildlife and roads conflict for several decades, and many other countries around the world have built structures.

In the United States, hundreds of wildlife crossings have been built in the past 30 years in over 13 states. The US 93 mitigations have the most structures in the shortest stretch of highway - making it the most densely mitigated stretch in the US.