Montanans for Safe Wildlife Passage

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Today’s goals

1. Formation of MSWP
2. Why is this important?
3. MSWP activities & member projects
4. Key challenges
5. Opportunities to work together
MISSION: MSWP advocates for innovative solutions to maintain habitat connectivity and provide safe passage for Montana’s people, fish, and wildlife.
GOAL: MSWP seeks to reduce collisions involving wildlife by 20% within 5 years

Wildlife Crossings

WILDLIFE-SENSITIVE DESIGN

Wildlife-sensitive design seeks to protect animals while helping to reduce animal-vehicle conflicts. This type of design makes use of bridge-like structures (overpasses), culvert-like structures (underpasses), barriers, and escape structures. Barriers block animal crossings, while escape structures encourage animals to exit the roadway.
Total U.S. Crashes Versus Crashes Involving Animals, 1990–2004

(Huijser et al. 2008)
Worst States For Deer Collisions

Odds of deer strike and claim data provided by State Farm.
Some Ecological Impacts of a Road

1. Loss of habitat, 2. Road mortality, 3. Barrier effect, 4. Reduced habitat quality
# Average Cost of a Collision by Species
(In 2016 US Dollars)

<table>
<thead>
<tr>
<th>Costs</th>
<th>Deer</th>
<th>Elk</th>
<th>Moose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle repair costs</td>
<td>$2,622</td>
<td>$4,550</td>
<td>$5,600</td>
</tr>
<tr>
<td>Human injuries</td>
<td>$2,702</td>
<td>$5,403</td>
<td>$10,807</td>
</tr>
<tr>
<td>Human fatalities</td>
<td>$1,002</td>
<td>$6,683</td>
<td>$13,366</td>
</tr>
<tr>
<td>Towing, accident attendance, and investigation</td>
<td>$125</td>
<td>$375</td>
<td>$500</td>
</tr>
<tr>
<td>Hunting value</td>
<td>$116</td>
<td>$397</td>
<td>$387</td>
</tr>
<tr>
<td>Carcass removal and disposal</td>
<td>$50</td>
<td>$75</td>
<td>$100</td>
</tr>
<tr>
<td><strong>Total (2007 $)</strong></td>
<td><strong>$6,617</strong></td>
<td><strong>$17,483</strong></td>
<td><strong>$30,760</strong></td>
</tr>
</tbody>
</table>
If we build them, will they come?

Banff National Park

World’s longest wildlife crossing monitoring project (1996-2014)

> 150,000 crossings detected

11 large mammal species
MSWP Activities

• Education & Outreach
  ➢ Op-eds
  ➢ Website
  ➢ News articles

• File comments
  ➢ Long-range plans
  ➢ STIP
  ➢ Corridor Studies

• Identify and support potential mitigation projects
Member Project: I-90/Bozeman Pass

RESULTS
Pass-wide Data Summary

UVC totals by year, mileposts 309.5–333.0
Member Project: I-90/Bozeman Pass

Bozeman Pass Study Area

A.

C.

B.
Member Project: US 87/287
Madison Valley

Observations recorded during the study period
(April 5, 2012 to April 10, 2014)

Legend
Carcass Count by Mile
No. Individuals

<table>
<thead>
<tr>
<th>No. Individuals</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6 - 20</td>
</tr>
<tr>
<td>2 - 5</td>
<td></td>
</tr>
<tr>
<td>6 - 20</td>
<td></td>
</tr>
<tr>
<td>21 - 50</td>
<td></td>
</tr>
<tr>
<td>51 - 100</td>
<td></td>
</tr>
</tbody>
</table>

Track Count by Mile
No. Individuals

<table>
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<td>51 - 100</td>
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</table>

Visual Observations
No. Individuals

<table>
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<tr>
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<th>Count</th>
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<tbody>
<tr>
<td>0 - 1</td>
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* Numbers indicate Reference Post miles
Member Project: US 89 Paradise Valley

- MDT 52-mile corridor study from Livingston to Gardiner, gateway to Yellowstone National Park
- Wildlife involved in 50% (142) of crashes (286) over 5 years
- 1600+ large mammal carcasses over 11 years
Member Project: MT 86
Bridger Canyon

2016
Week of Aug 21. Deer by the "M."
Week of Aug 21. Deer by Creekwood
Sept 3. Cow elk. at 7424 Bridger Canyon Rd
Sept 19. Deer in field beside road at 7424 Bridger Canyon Rd
Week of Sept 25. deer by 7280 Bridger Canyon Rd
Oct 13. Deer at Hamm's
Oct 24. Mule deer directly across from Hamm’s house
Oct 26. Deer on Rouse/Bridger Canyon Rd in 1300 -1400 block
Dec 4. Mule deer at Papke residence
Dec 30. 2 deer across from Pete Serreno's residence

2017
Mar 6. One deer, whitetail possibly, 5 side near 5622 Bridger Canyon Rd
March 29. One deer at Papke residence, One deer at 6140 Bridger Canyon Rd.
Both looked like young whitetail.
First week of May. Elk on Bridger Canyon Rd at bend by Hamm's, MM 9.
Herd crossing road in rain storm. Elk slid under Brenda Greenberg's car.
June 24. Young whitetail across from Creekwood
July 20. Black bear 7157 Bridger Canyon Rd
August 8. Mule deer doe 6788 Jackson Creek Rd
Member Project: I-90 E/W of Missoula & US 93 S of Lolo

**VEHICLE ANIMAL COLLISIONS - (DEER/ELK) AND COSTS PER QUARTER MILE**

US-93 South of Lolo, MT: mile 79.5 through 83.25
January 1, 2004 through December 31, 2013

![Graph showing vehicle animal collisions and costs per quarter mile.](image-url)

- **ELK** (average cost per VAC $17,500)
- **Deer** (average cost per VAC $6,600)
The Challenge-Opportunity Puzzle

- Education & Outreach
- Policy
- Science
- Data
- Planning
- Funding
Safe underpassage
HIGHWAY MITIGATION FOR WILDLIFE IN NORTHWEST MONTANA

Estimating The Impacts Of Exurban Growth And Traffic Demand On Grizzly Bears And Other Key Wildlife Species
Relationship of Montana’s Safety Plan (CHSP) with Agency Safety Plans & Programs

MT Comprehensive Highway Safety Plan (CHSP)

- Metropolitan Transportation Plans
- TranPlanMT
  - Goals Include: Safety, System Preservation & Maintenance, Mobility & Economic Vitality, Accessibility & Connectivity, Environmental Stewardship, and Business Operations & Management

- MPO TIPS
- Other Agency Plans

- 402 Plan
- Highway Safety Plan (HSP)
- 402 Plan

- Highway Safety Improve Program (HSIP)
- Traffic Records Strategic Plan (TRSP)
- Commercial Vehicle Safety Plan (CVSP)

- Corridor Plans
- Road Safety Audits (RSA)
- Issue Specific Plans
  - Road Departure
  - Rail-Highway Grade Crossing
  - Transit, Freight, etc..

Statewide Transportation Improvement Program (STIP)

LEGEND
- Montana Plan
- Federal Transportation Planning Process
- MDT Directed
- Other Plans
Funding
Mission mismatch
The $64,000 Question

GROUND
“We spend $8 billion a year running over wildlife. If we took that cost and quartered it, we could build 200 animal crossings a year, and the problem of roadkill would disappear within a generation.”

Ted Zoli, HNTB Bridge Engineer, MacArthur Fellow