

Montanans for Safe Wildlife Passage



Lance Craighead
lance@Craigheadinstitute.org
Craighead Institute

Renee Callahan
renee@largelandscapes.org
Center for Large Landscape Conservation

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



MPG
RANCH



THE CENTER FOR
**LARGE LANDSCAPE
CONSERVATION**

YELLOWSTONE TO YUKON
CONSERVATION INITIATIVE

Citizen Advocates



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

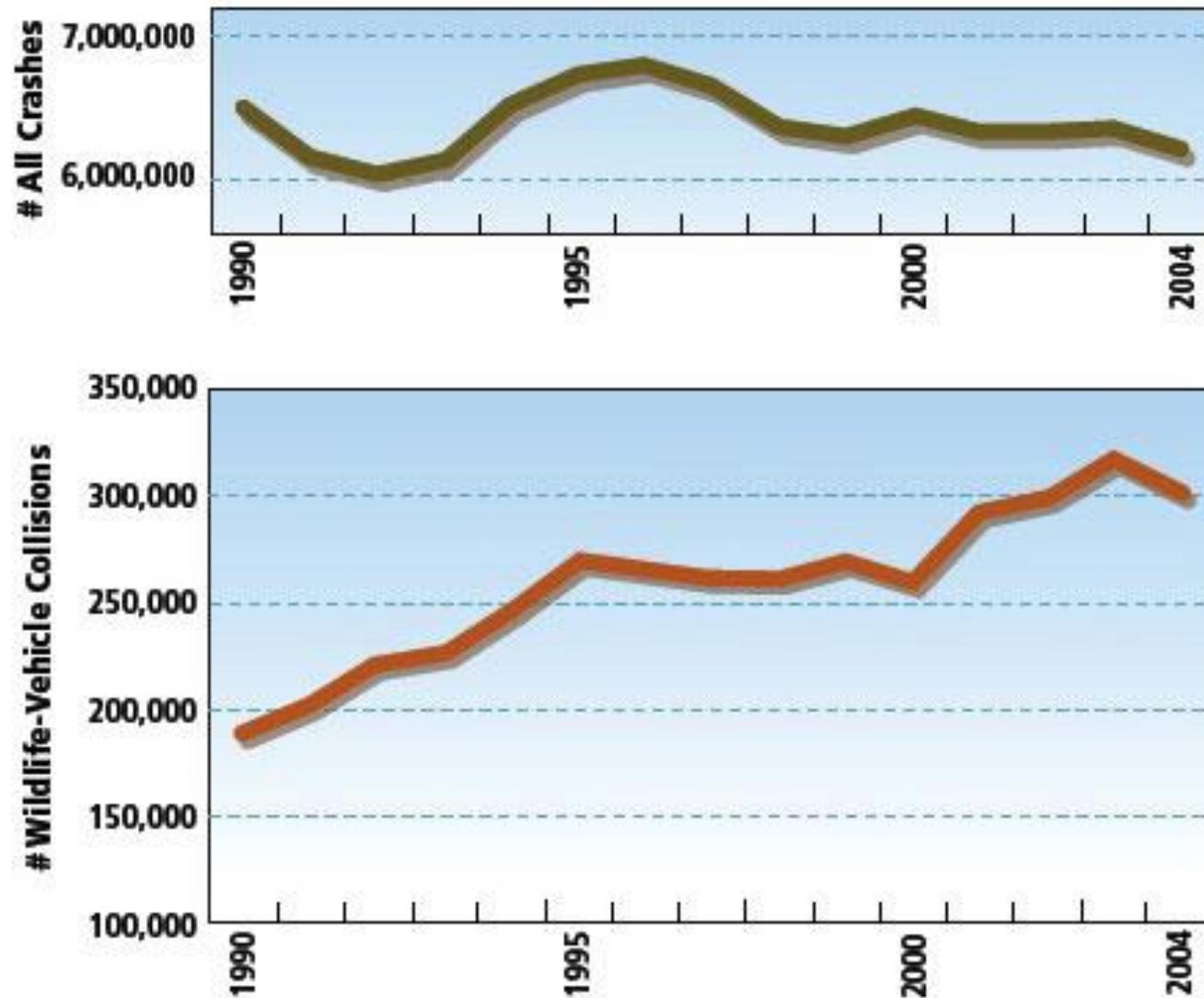
WILDLIFE-SENSITIVE DESIGN

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.



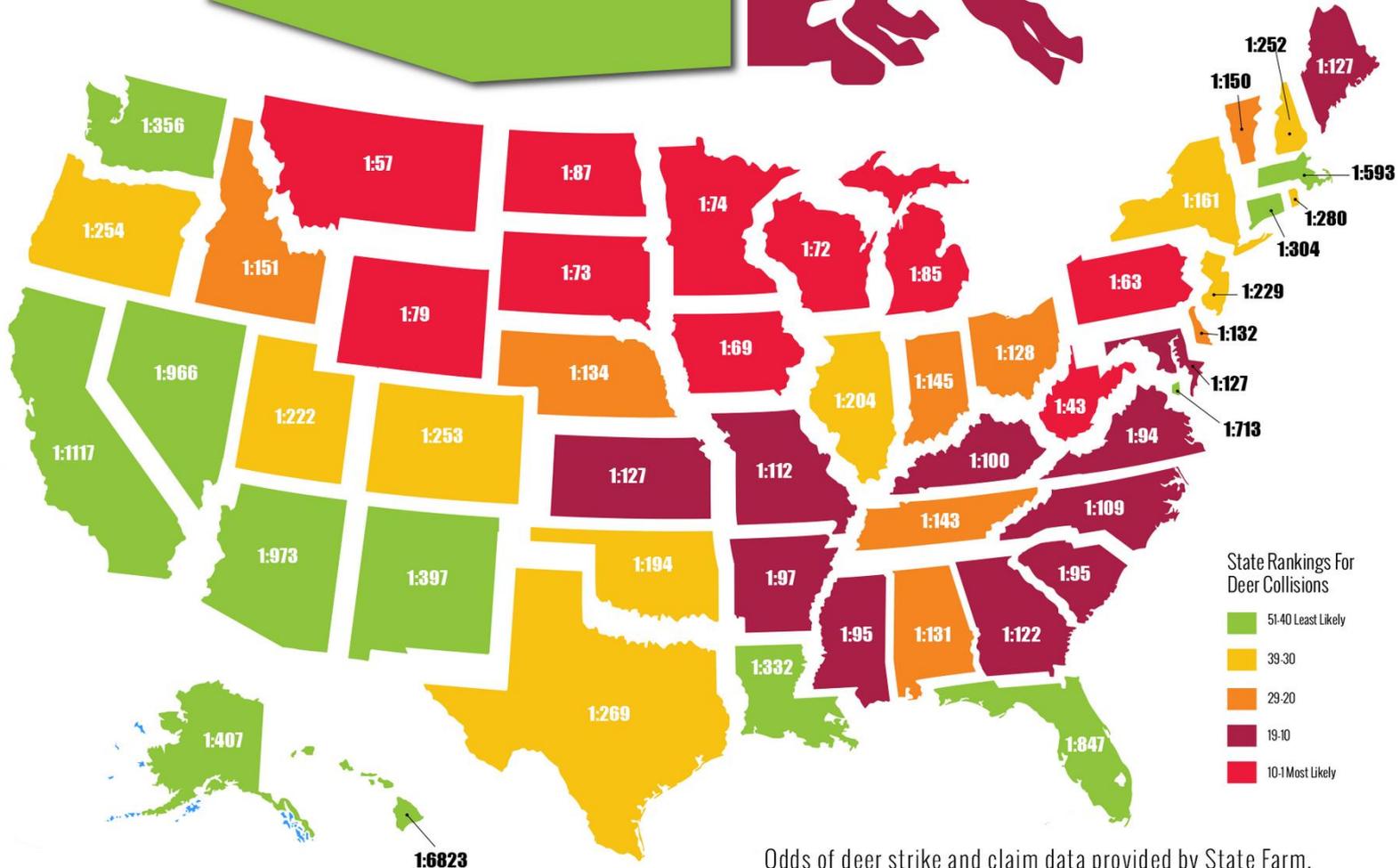
Wildlife using crossings in MT

Total U.S. Crashes Versus Crashes Involving Animals, 1990–2004



(Huijser et al. 2008)

Worst States For Deer Collisions



State Rankings For Deer Collisions

- 51-40 Least Likely
- 39-30
- 29-20
- 19-10
- 10-1 Most Likely

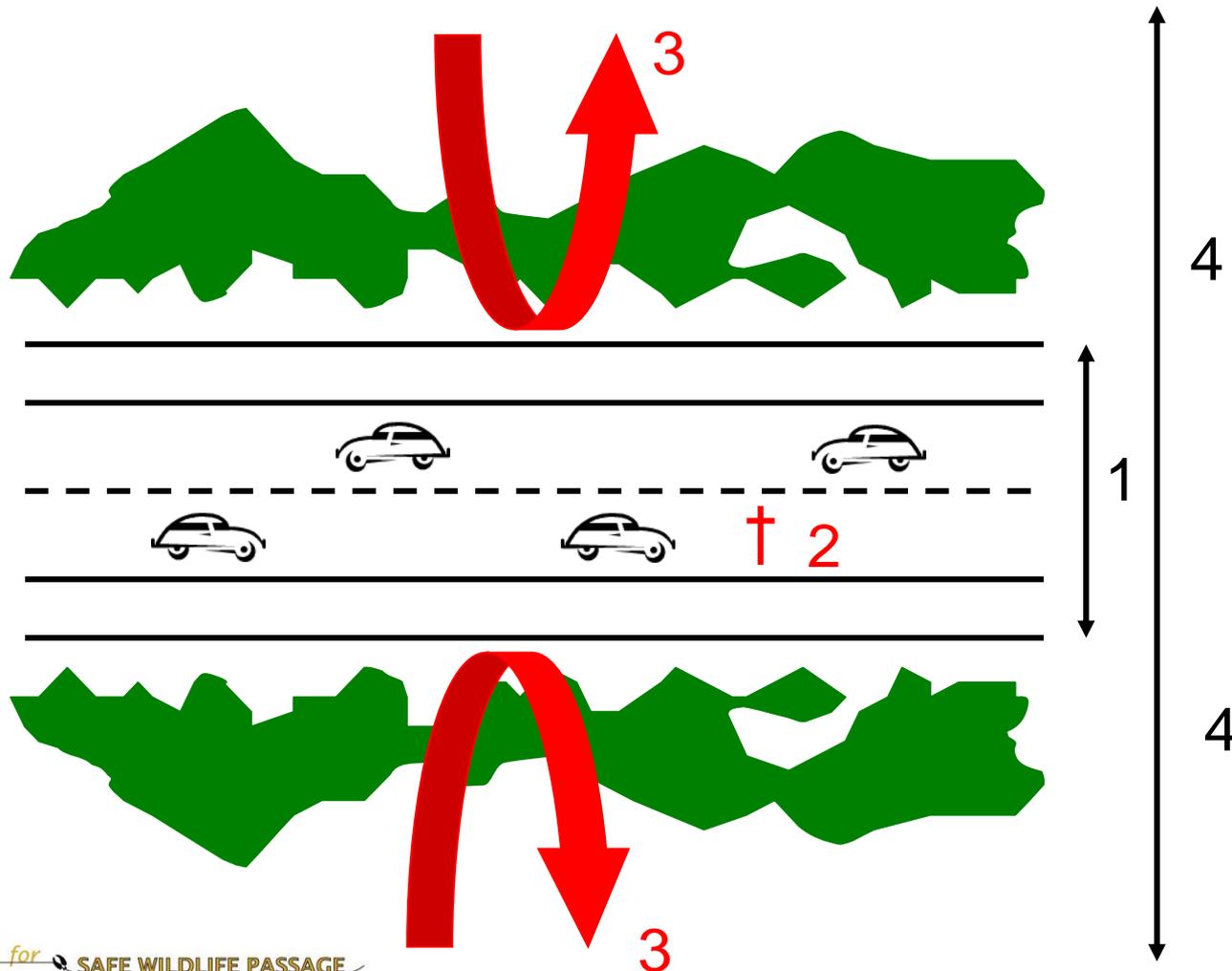
Odds of deer strike and claim data provided by State Farm.

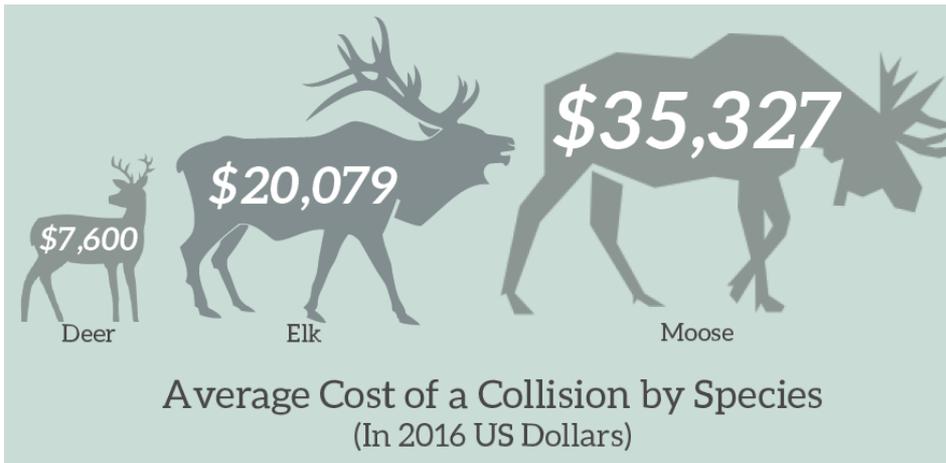




Some Ecological Impacts of a Road

1. Loss of habitat
2. Road mortality
3. Barrier effect
4. Reduced habitat quality





Costs	Deer	Elk	Moose
Vehicle repair costs	\$2,622	\$4,550	\$5,600
Human injuries	\$2,702	\$5,403	\$10,807
Human fatalities	\$1,002	\$6,683	\$13,366
Towing, accident attendance, and investigation	\$125	\$375	\$500
Hunting value	\$116	\$397	\$387
Carcass removal and disposal	\$50	\$75	\$100
Total (2007 \$)	\$6,617	\$17,483	\$30,760

If we build them, will they come?

2012-03-28 8:34:03 AM M 1/5

0 0°C



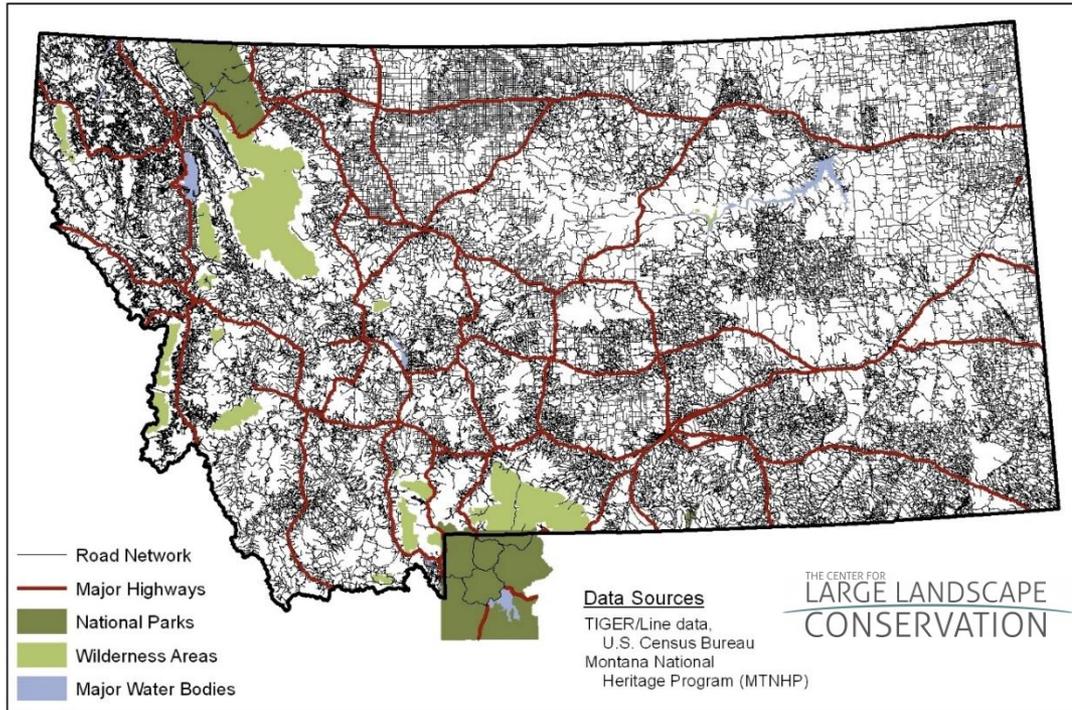
Banff National Park

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

> 150,000 crossings detected

11 large mammal species

MSWP Activities

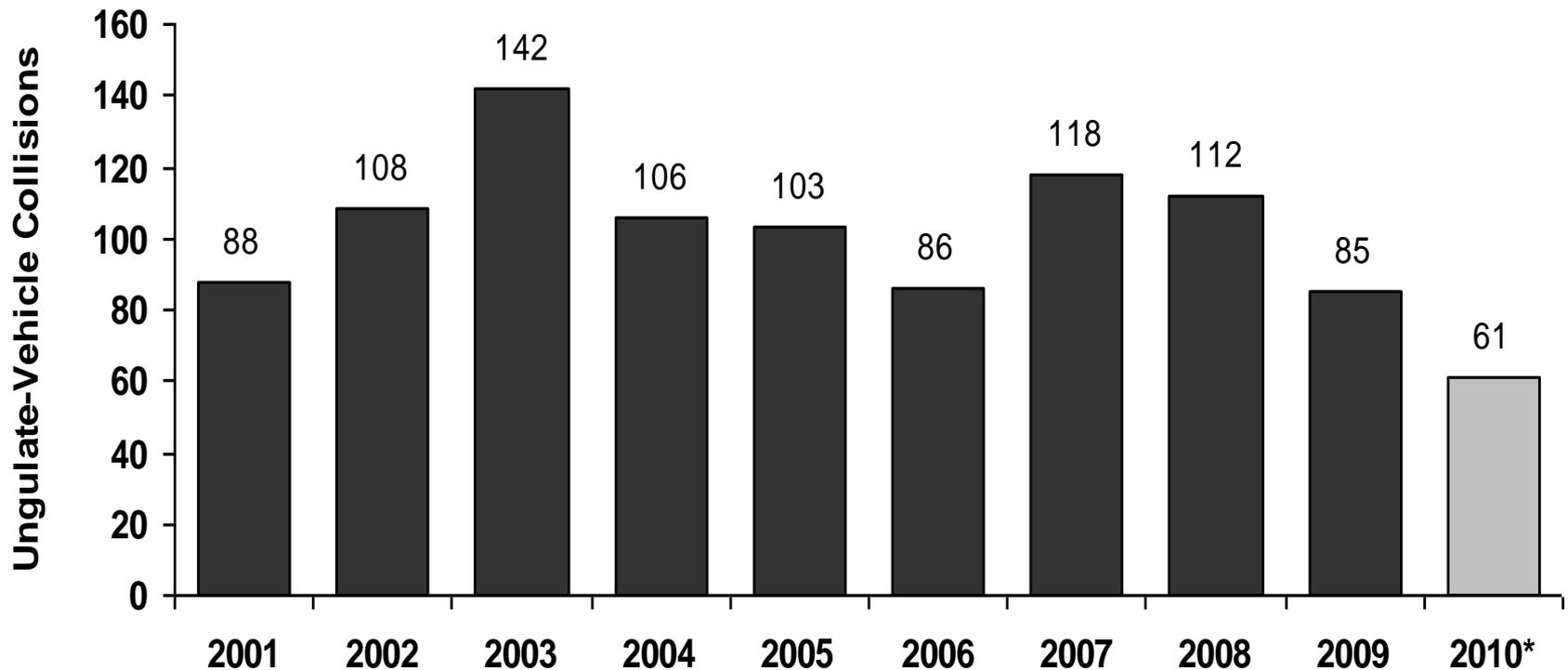


- Education & Outreach
 - Op-eds
 - Website
 - News articles
- File comments
 - Long-range plans
 - STIP
 - Corridor Studies
- Identify and support potential mitigation projects

Member Project: I-90/Bozeman Pass

RESULTS

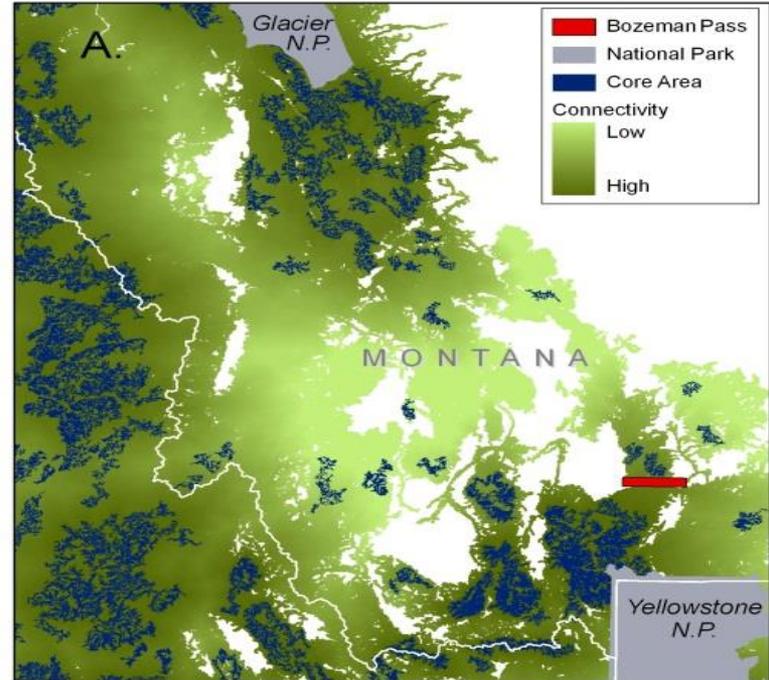
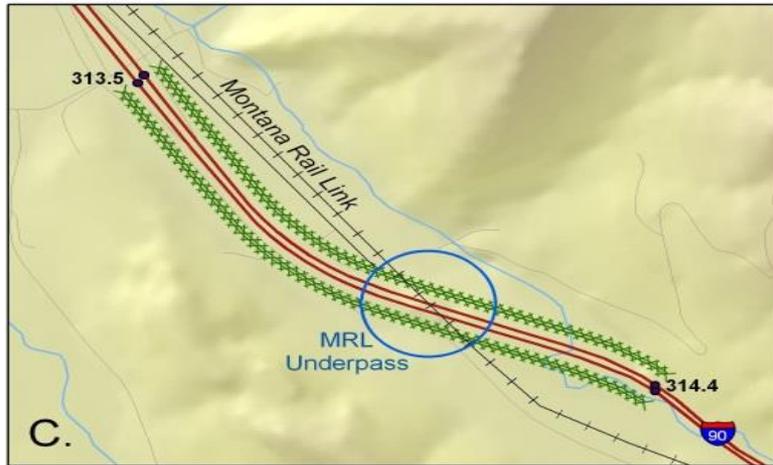
Pass-wide Data Summary



UVC totals by year, mileposts 309.5–333.0

Member Project: I-90/Bozeman Pass

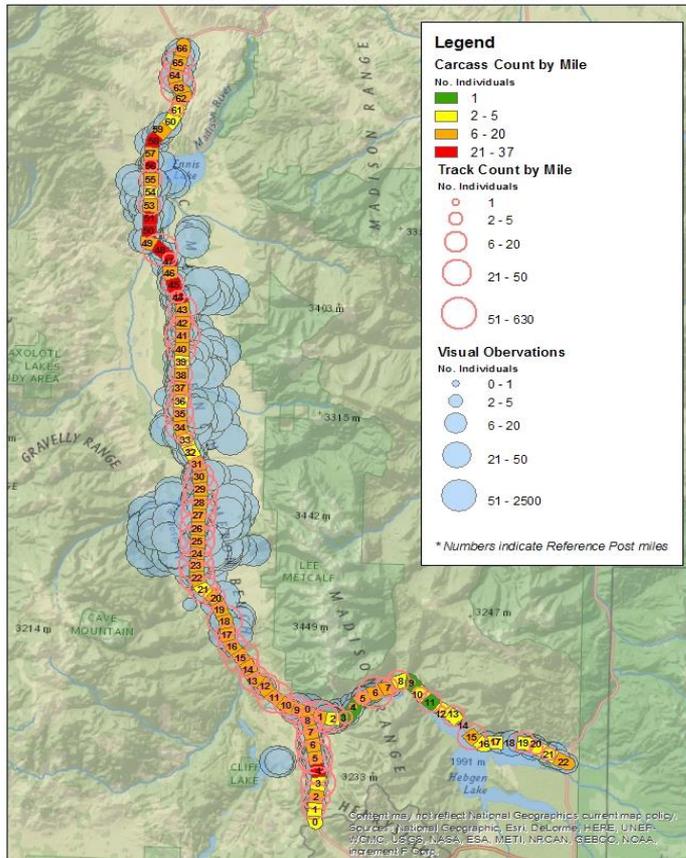
Bozeman Pass Study Area



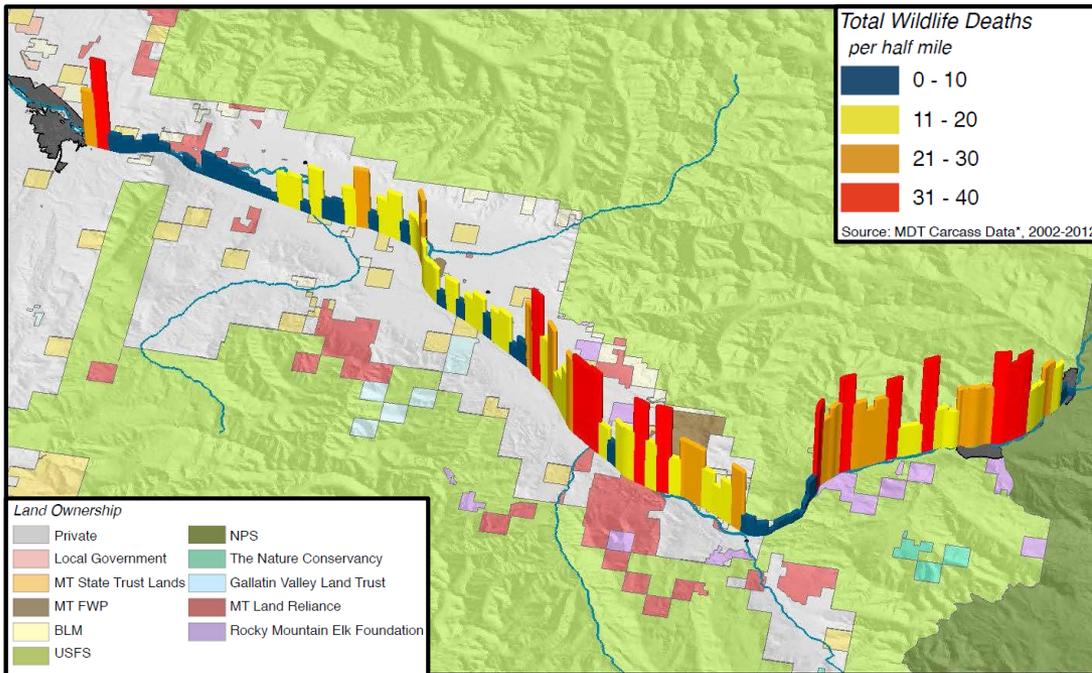
Member Project: US 87/287

Madison Valley

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



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

WILDLIFE-VEHICLE CONFLICTS					
13	Grade Separated Crossing Structures-overpasses	As needed	Consider grade separated crossing structures (overpass) on a case-by-case basis during project-level design.	As needed	\$2,800,000 EA (overpass)
	Grade Separated Crossing Structures-underpasses	As needed	Consider grade separated crossing structures (underpass) on a case-by-case basis during project-level design.	As needed	\$750,000 EA (underpass)
	Animal Detection System (At-grade Crossing)	As needed	Consider animal detection system installation on a case-by-case basis during project-level design.	As needed	\$220,000 per mile
	Wildlife Signage	As needed	Consider additional wildlife signing on a case-by-case basis during project-level design.	As needed	\$600 EA

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 14. Deer in front of Story Mill trailer court

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, S 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

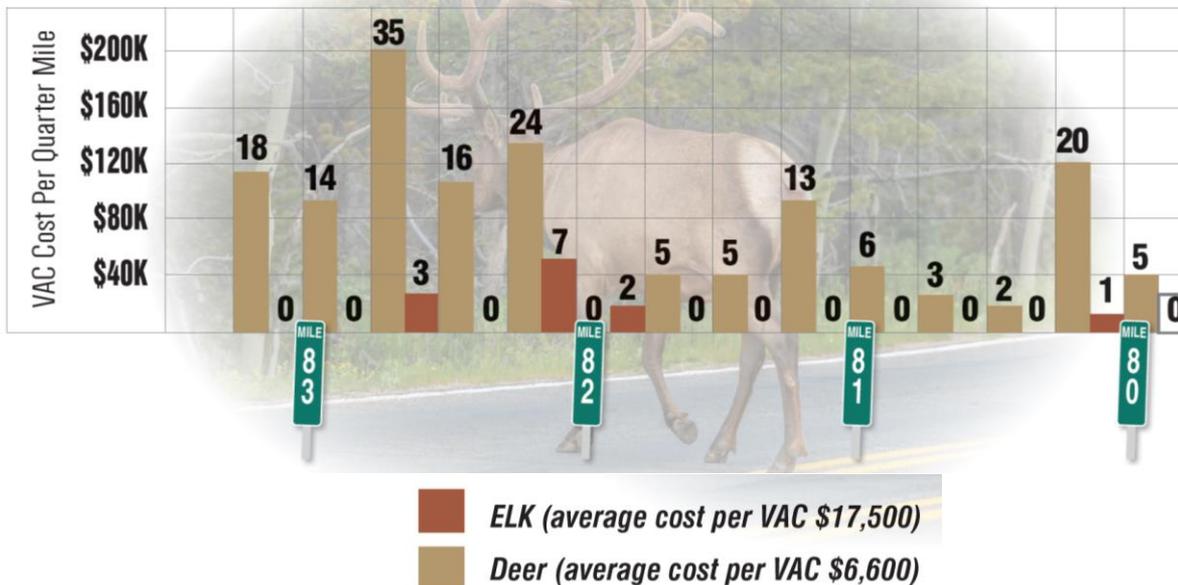
July 20. Black bear 7157 Bridger Canyon Rd

August 8. Mule deer doe 6788 Jackson Creek Rd

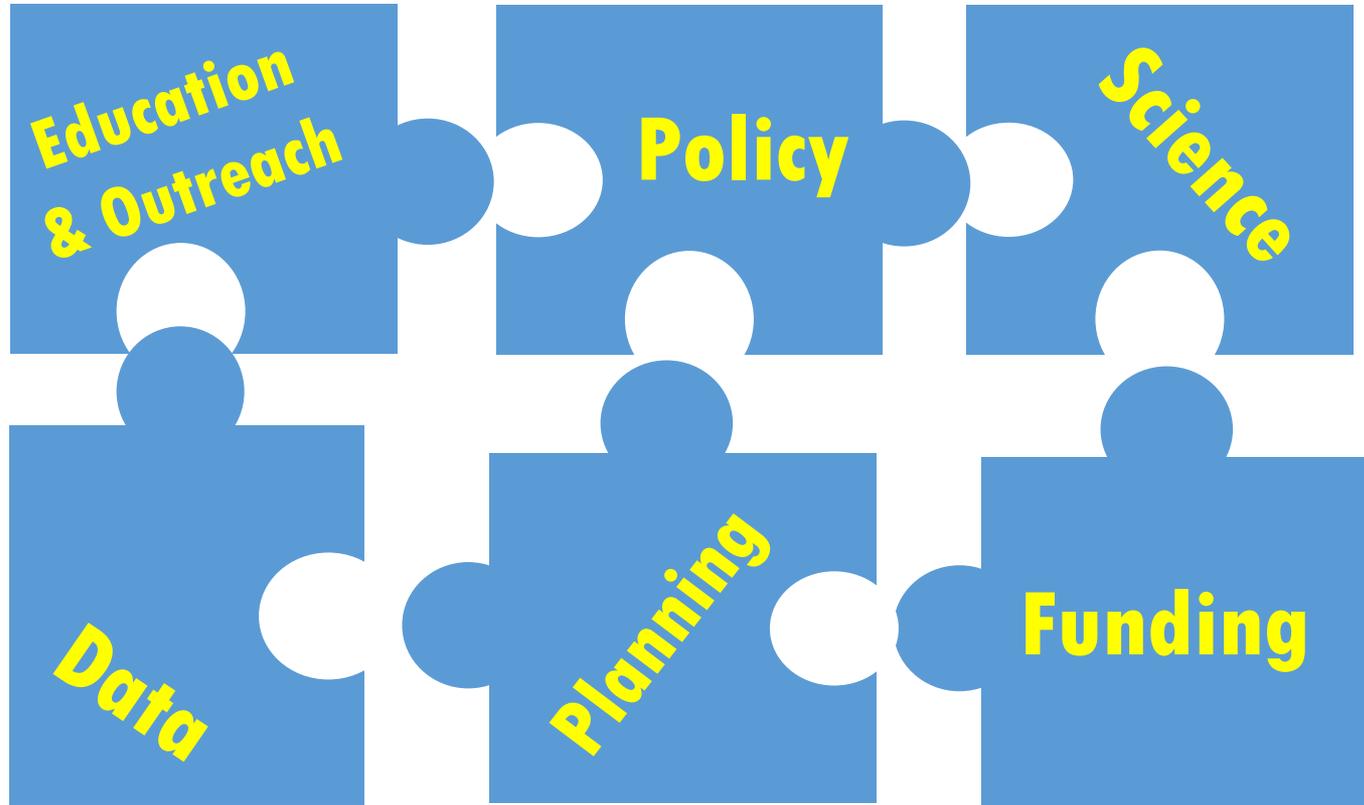
Member Project: I-90 E/W of Missoula & US 93 S of Lolo

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

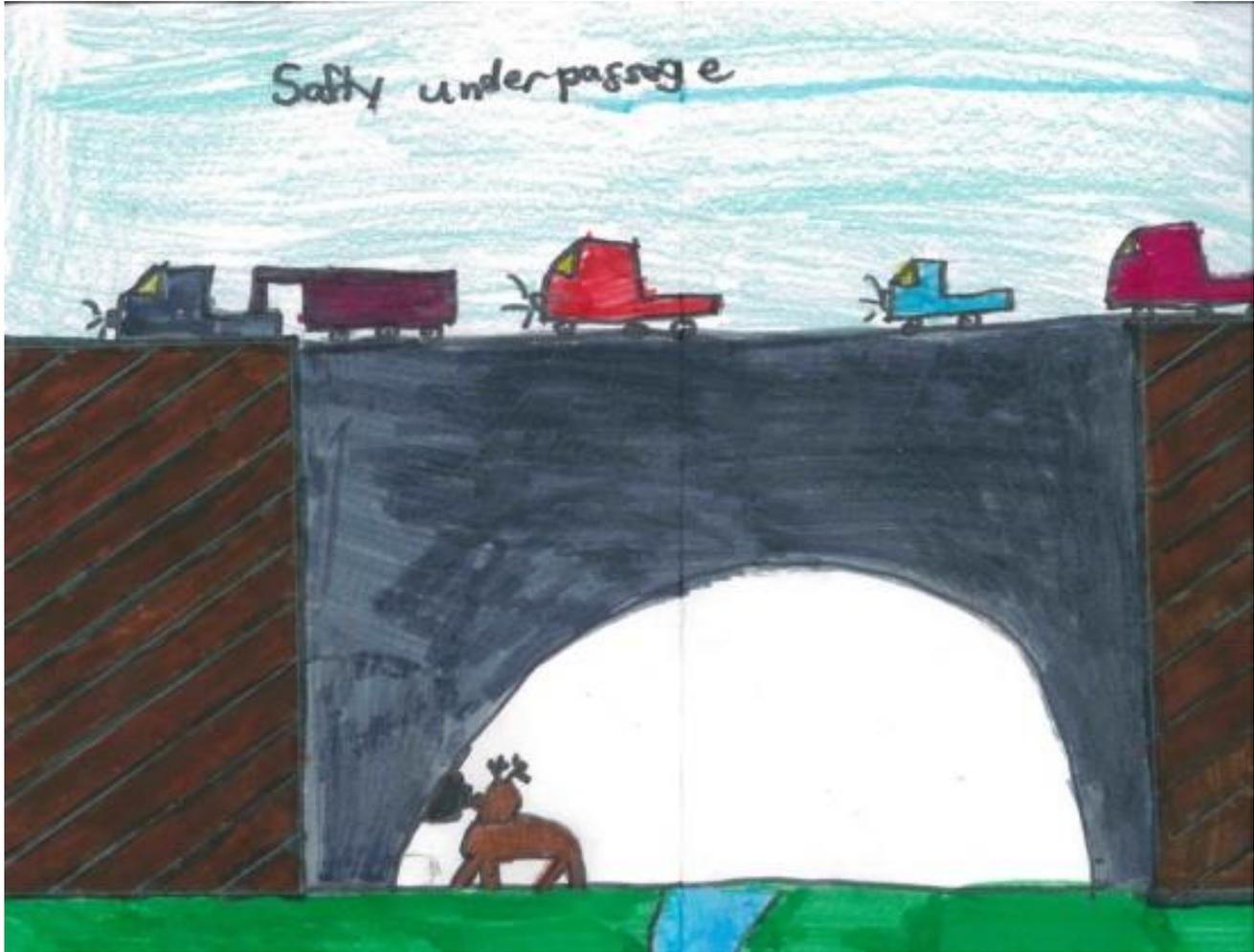
US-93 South of Lolo, MT: mile 79.5 through 83.25
January 1, 2004 through December 31, 2013

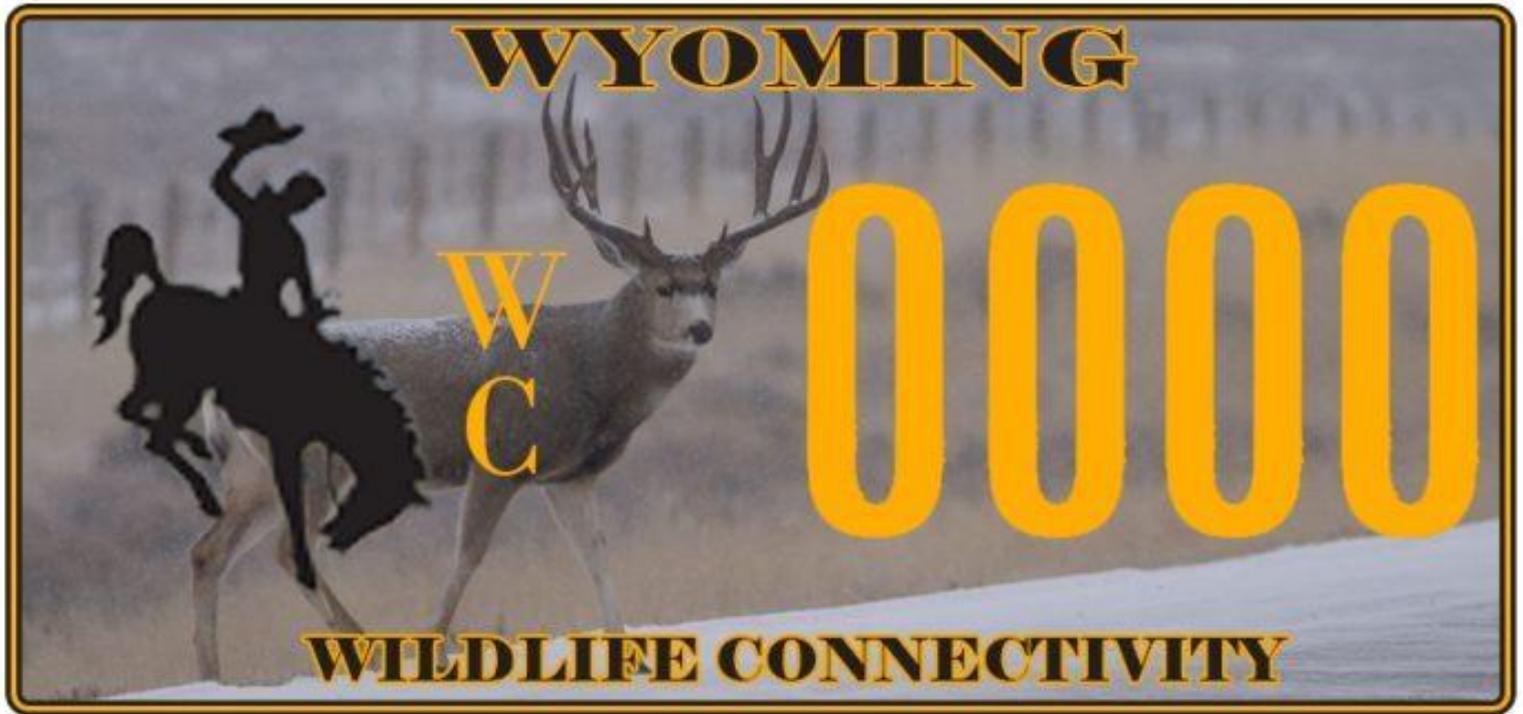
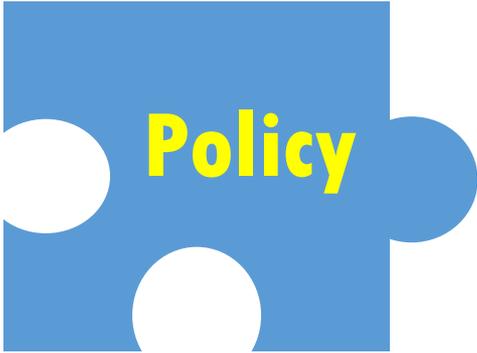


The Challenge-Opportunity Puzzle



Education & Outreach





Science &
Data



HIGHWAY MITIGATION FOR WILDLIFE IN NORTHWEST MONTANA

Estimating The Impacts
Of Exurban Growth And Traffic Demand
On Grizzly Bears
And Other Key Wildlife Species

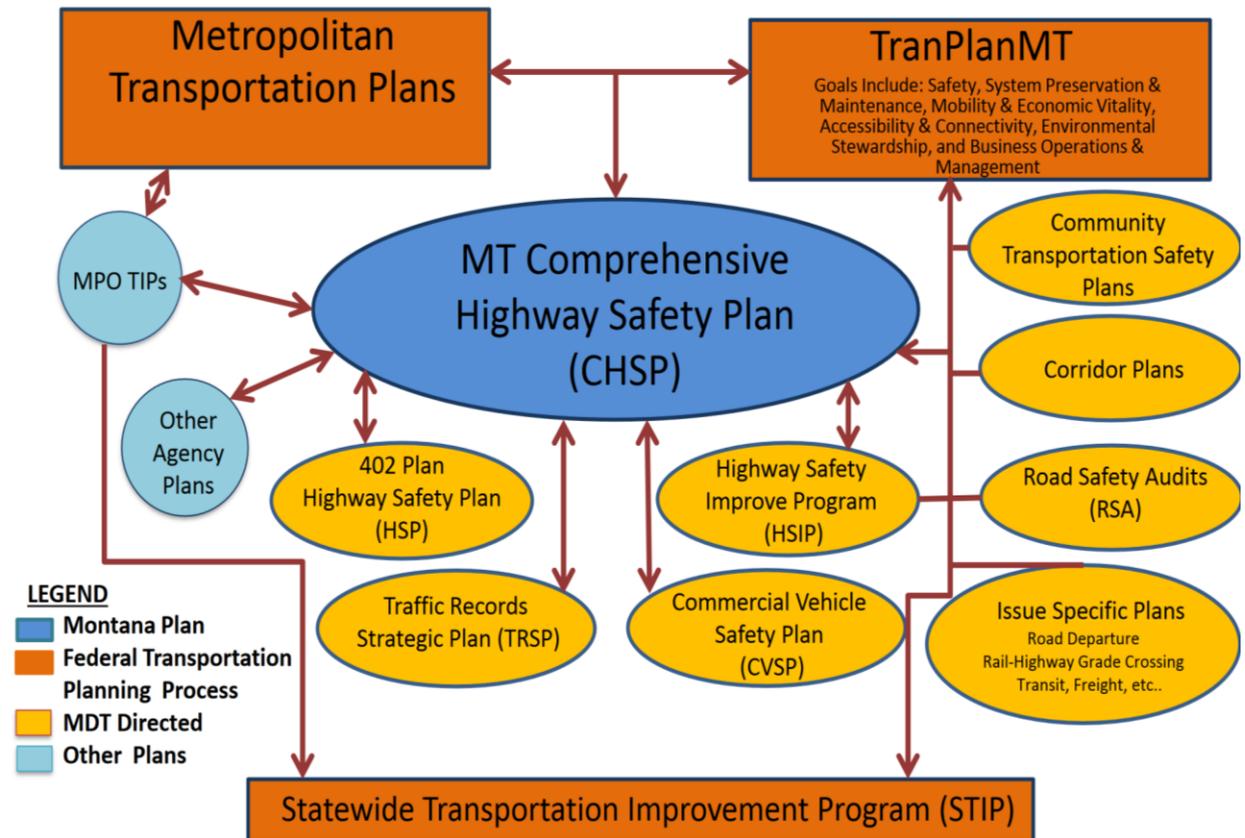
MONTANANS

for

SAFE WILDLIFE PASSAGE



Relationship of Montana's Safety Plan (CHSP) with Agency Safety Plans & Programs



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

