

**Project:** Western States Road Ecology Initiative

**Executive Summary:**

The U.S. has 1.2 miles of road for every square mile of land area, and based on road-effect zones, an estimated 15-20% of the United States is ecologically impacted by roads. Today more than 200 million vehicles travel more than 2.6 trillion miles per year in the United States. During the next 25 years, significant growth and changes in the nation's economy and population are expected to occur, posing major new challenges for transportation and its impacts on the environment. The impacts from growth and transportation will be felt greatest in the western United States. According to the Western Governors Association, the West will add 42 million more people (and their cars) by 2030 and nearly 90% of the nation's population growth will occur in the south and west, with some of the fastest growth occurring in Nevada, New Mexico, Idaho, Utah, Wyoming and Montana. A solution to saving our heritage and wildlife is key to western states quality of life and road ecology is part of that solution.

Road ecology is a rapidly emerging discipline that is grappling with surface transportation infrastructure and its impacts on wildlife and motorist safety, aquatic resources, habitat connectivity, and many other environmental values. The linear nature of the U.S. surface transportation system creates a suite of issues for transportation professionals as they seek to ameliorate the impacts of their projects on environmental quality, as roadways and railroads slice through a series of habitats and hydrological features. Today, the best available information on mitigating the impacts of surface transportation systems is scattered across many research areas. Basic ecological information for the best types or methods of mitigation for particular species or habitats is often difficult to locate or lacking. Standards and best management practices have not been articulated for many resources, habitats, or species.

The Western States "Safe-Passage" Road Ecology Initiative **at the Western Transportation Institute, Montana State University (WTI-MSU)** would lead the nation in understanding the interaction between roads and the environment by assisting transportation and resource management professionals in mitigating surface transportation systems' impacts on the environment. To achieve a safe, efficient, and environmentally sound surface transportation system for the west and the nation, the Initiative would:

- Support the development of statewide assessments of wildlife corridors and identify mitigation strategies for key highways in these corridors.
- In partnership with western state public and private organizations implement solutions to raise awareness of the needs and benefits for highway-wildlife mitigation strategies and countermeasures.
- Conduct workshops and outreach to western state/ local officials to inform practitioners on the appropriate mitigation measures.
- House a multi-disciplinary group of experts on road ecology with expertise in wildlife, aquatic, soils, vegetation, spatial analyses, safety and environmental engineering/science.
- In concert with federal and state transportation agencies, advance the development of national guidelines, standards, and best practices for mitigating the effects of the U.S. surface transportation system on the environment.
- Provide a nationally significant source of educational materials and training resources for transportation and national resource agencies.
- Maintain a centralized electronic repository of road ecology information for transportation and natural resource agency professionals that would be readily available on the internet.
- Develop new technologies to reduce the impacts of surface transportation systems on natural resources.

**Congressional Action Needed:** A total appropriation of \$3 million over three years (approximately \$1 million per year) to support the outreach, research, and deployment of best management solutions to create safe-passage of animals, reduce wildlife-vehicle collisions and conserve western natural resources.

**Importance to Montana:** In Montana in the years 2005 and 2006 there were 1866 and 2032 wildlife-vehicle collisions, respectively. The estimated total cost of these collisions is \$15, 652,008 in 2005 and \$17, 044,416 in 2006. Estimated costs are based on an average cost per collision for vehicle repair, human injury, human fatality, towing, monetary value of animal and carcass removal and disposal. Similar statistics exist across the six fastest growing western states (Nevada, New Mexico, Idaho, Utah, Wyoming and Montana) and as such the resulting impact could be approximately \$100,000,000 per year.

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## Western States Road Ecology Initiative Talking Points

1. The U.S. has 1.2 miles of road for every square mile of land area, and based on road-effect zones, an estimated 15-20% of the United States is ecologically impacted by roads.
2. The West will add 42 million more people (and their cars) by 2030 and nearly 90% of the nations population growth will occur in the south and west, with some of the fastest growth occur in Nevada, New Mexico, Idaho, Utah, Wyoming and Montana.
3. The linear nature of the U.S. surface transportation system creates a suite of issues for transportation professionals as they seek to ameliorate the impacts of their projects on environmental quality, as roadways and railroads slice through a series of habitats and hydrological features.
4. Standards and best management practices have not been articulated for many resources, habitats, or species.
5. In 2006, estimated costs from wildlife-vehicle collisions were \$17, 044,416 in Montana. Estimated costs are based on an average cost per collision for vehicle repair, human injury, human fatality, towing, monetary value of animal and carcass removal and disposal. Similar statistics exist across the six fastest growing western states (NV, NM, ID, UT, WY) and as such the resulting impact could be approximately \$100,000,000 per year.
6. The Western States "Safe-Passage" Road Ecology Initiative would lead the nation in understanding the interaction between roads and the environment by assisting transportation and resource management professionals in mitigating surface transportation systems' impacts on the environment. Specifically, the Initiative would:
  - Support the development of statewide assessments of wildlife corridors and identify mitigation strategies for key highways in these corridors.
  - In partnership with western state public and private organizations implement solutions to raise awareness of the needs and benefits for highway-wildlife mitigation strategies and countermeasures.
  - Conduct workshops and outreach to western state/ local officials to inform practitioners on the appropriate mitigation measures.
  - Maintain a centralized electronic repository of road ecology information for transportation and natural resource agency professionals that would be readily available on the internet.
  - Develop new technologies to reduce the impacts of surface transportation systems on natural resources.