

Wildlife Accident Monitoring and Mitigation in British Columbia

Ministry of Transportation and Infrastructure
Engineering Branch
Environmental Management Section



Ministry of
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WARS 1988–2007 Wildlife Accident Reporting and Mitigation in British Columbia Special Annual Report

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Abstract: The Wildlife Accident Reporting System (WARS) is designed to collect and store information on wildlife killed on highways in British Columbia. The WARS database contains over 109,000 records collected since 1978. Wildlife accident information is used by the Ministry to:

- 1) Identify accident-prone locations and accident trends;
- 2) direct cost-effective mitigation efforts;
- 3) evaluate the effectiveness of mitigation techniques;
- 4) provide data for highway planning purposes;
- 5) model and forecast accidents;
- 6) analyze traffic and climatic relationships for species-specific accident trends;
- 7) develop species-specific accident risk profiles for highway corridors; and
- 8) establish policies and strategies for accident issues and mitigation initiatives.

The success of the WARS system in British Columbia has made it a model for other agencies seeking to monitor wildlife-related motor vehicle accidents.

Comments: In 2007, Ministry Maintenance Contractors reported finding 5,913 dead wild animals on British Columbia highways. Approximately 76% of the animals reported killed were deer.

Keywords: WARS, wildlife, accident, reporting, system, road, kills, statistics, exclusion, fencing, British Columbia, risk, cost, deer, moose, elk, bear, sheep, mitigation, overpass, underpass, road ecology.



EXECUTIVE SUMMARY

The British Columbia Ministry of Transportation and Infrastructure (BCMoT) administers the Wildlife Accident Reporting System (WARS). The WARS system is designed to analyze wildlife accident data collected by BCMoT Maintenance Contractors on numbered highways in British Columbia.

Since 1978, over 109,000 wildlife accidents have been reported on provincial highways. More than 90% of the accidents involved bears, deer, elk and moose. Between 1988 and 2007, 37 people were reported killed in wildlife-related motor vehicle accidents in British Columbia. After weather, the Insurance Corporation of British Columbia (ICBC) rates wildlife as the next highest environmental contributing factor for police-attended accidents. Between 1997 and 2007, ICBC spent over \$278 million on wildlife-related motor vehicle accident claims.

In 2007, over 5,000 wildlife-related accidents were reported in British Columbia (table below).

Wildlife Accidents by BCMoT Region (Year 2007)

	Region 1	Region 2	Region 3	Total
Wildlife Accidents	1,518	3,289	1106	5,913

In 2010, it is estimated wildlife accidents cost the Province over \$23 million in motor vehicle accident claims; \$670,000 in highway accident clean-up costs; \$370,000 in lost provincial hunting license revenues; and \$35 million in lost value to residents and non-residents who view or hunt wildlife.

BCMoT is committed to protect the safety of the motoring public; stem the rising societal cost of human fatalities and injuries, motor vehicle damage, and highway maintenance; and reduce the loss of wildlife on provincial highways. Consequently, BCMoT uses the WARS system to:

- 1) identify accident-prone locations and accident trends;
- 2) direct cost-effective mitigation efforts;
- 3) evaluate the effectiveness of mitigation techniques;
- 4) provide data for highway planning purposes;
- 5) model and forecast accidents;
- 6) analyze traffic and climatic relationships for species-specific accident trends;
- 7) develop species-specific accident risk profiles for highway corridors; and
- 8) establish policies and strategies for accident issues and mitigation initiatives.

The WARS system is becoming an increasingly valuable information resource for BCMoT, and other government agencies, consultants, researchers, wildlife associations, special interest groups and members of the general public. The Ministry of Environment uses WARS data to assess provincial wildlife population trends. ICBC uses WARS data for identifying highway locations where joint BCMoT/ICBC initiatives, such as exclusion fencing, warning reflectors, and infrared camera detection systems, can be targeted to reduce wildlife-related motor vehicle collisions. The success of the WARS system in British Columbia has made it a model for other agencies seeking to monitor wildlife-related motor vehicle accidents.



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Caribou Road Services Ltd.
Emcon Services Inc.
Emil Anderson Maintenance Co. Ltd
HMC Services Inc.
Interior Roads Ltd.
Lakes District Maintenance Ltd.
Mainroad Contracting Ltd.
Mainroad East Kootenay Contracting Ltd.
Mainroad Howe Sound Contracting Ltd.
Mainroad South Island Contracting Ltd.
141187 Ventures Ltd.
O'Brien Road and Bridge Maintenance Ltd.
R1890 Holding Ltd.
VSA Highway Maintenance Ltd.
Yellowhead Road and Bridge (Fort George) Ltd.
Yellowhead Road and Bridge (North Peace) Ltd.
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