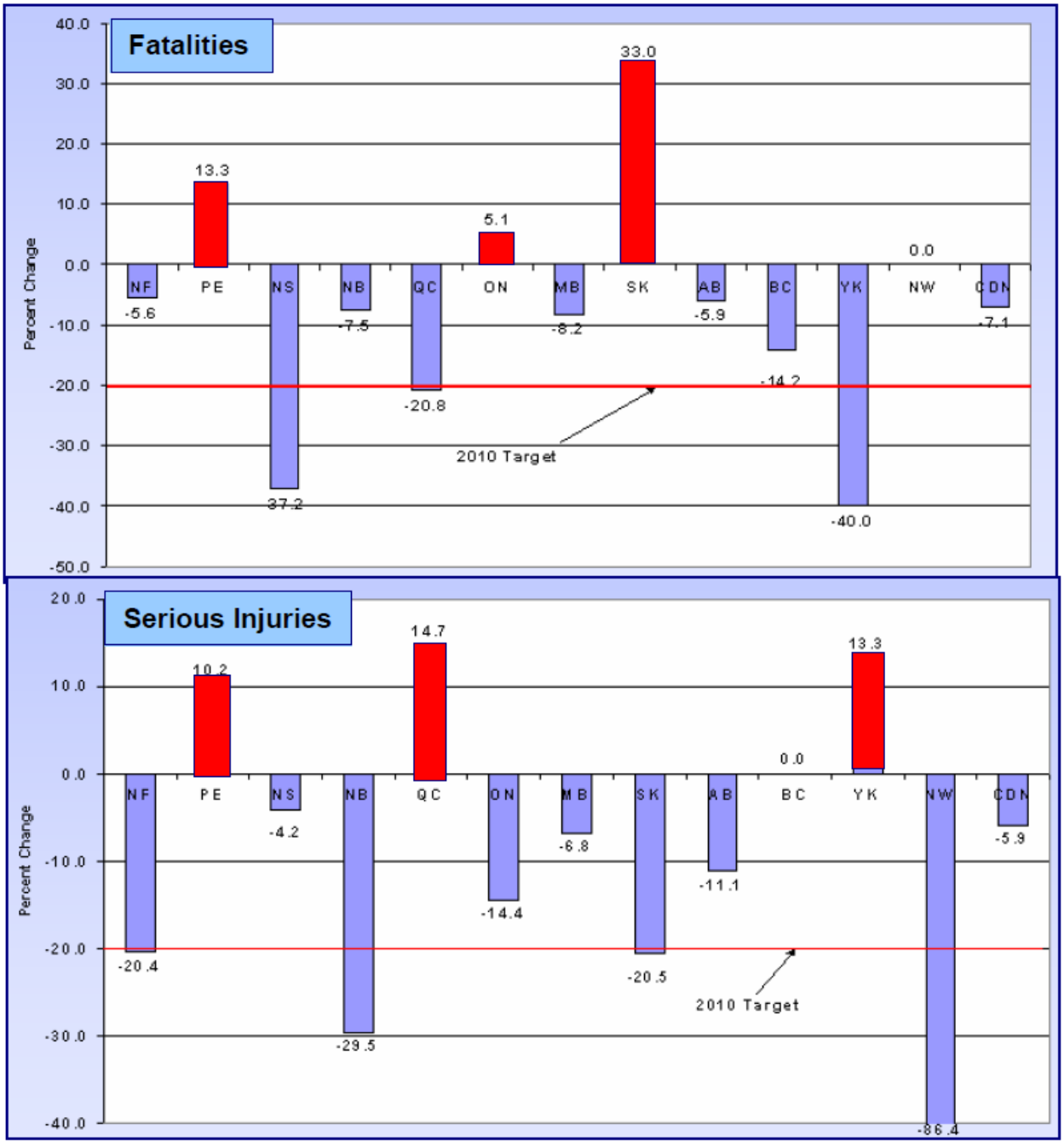
MPI (CAC) 1

On page 11 under the heading “Age of drivers”, information is provided showing that the younger the driver the more likely they are to be involved in a collision.

a. What are the rates of involvement in collisions for young drivers in other provinces?

Response:

The following chart (from the RSV 2010 Mid-Term review) indicates the progress towards the sub-target for reduction in fatalities and serious injuries involving young drivers by the provinces and territories for RSV 2010.



These charts relate to the progress (or lack of) on Young driver fatalities and serious injuries between 2003-2005 average vs 1996-2001 baseline. This would appear to be the latest data available.

This data should be interpreted as follows: The 0.0 line across the centre is the baseline average (of young drivers killed or seriously injured). From there the red or blue bars indicate progress towards the target (**red**- indicates an increase in the numbers and **blue**– indicates a reduction in the numbers) i.e. in the fatalities chart, Saskatchewan's number of fatalities **increased** 33% while Manitoba's number of fatalities was **reduced** by 8.2%. Similarly in the serious injuries chart, Saskatchewan's number of serious injuries **reduced** by 20.5% while Manitoba's number of fatalities was **reduced** by 6.8%. *Source*: RSV2010 Mid-Term Review Fig.23c
http://www.ccmta.ca/english/pdf/rsv2010_midtermreport_final.pdf

b. Please provide statistical backup and any explanation as to differences in reporting that might impact the analysis of the data.

Response:

When the sub-targets for Canada's RSV2010 were developed all the provinces and territories agreed on which numbers they would report on. Subsequently each province/territory was required to report annually on its progress towards the sub-targets. These were then consolidated by Transport Canada into "Annual Monitoring Reports". The numbers counted are just "raw numbers" and are not rated by the population, numbers of licensed drivers in that class or the amount of kilometers driven.

c. What impact does financial accessibility of insurance for young drivers have on the numbers of young drivers on the road and the corresponding likelihood that there will be an increased number of young drivers involved in collisions?

Response:

I was unable to find any Canadian reports regarding the financial accessibility of insurance and its relationship to young driver collisions. I did however find some US reports, but again while these reports identify some of the reasons why young drivers defer licensing, there seems to be no evidence that the (high) cost of vehicle insurance is one of them. The following extract from the AAA Foundation for Traffic Safety indicates some of the reasons young drivers defer driving and obtaining a licence.

"There was little evidence that GDL was itself a major reason or motivator for delaying licensure. The most common self-reported reasons for delayed licensure were not having a car, being able to get around without driving, and costs associated with driving (which might include the costs of auto insurance). Few cited difficulty associated with GDL requirements or undesirability of GDL restrictions. Furthermore, of 19- and 20-year-old respondents not licensed before age 18, fewer than one in three obtained a license before turning 19, suggesting that most were not simply waiting until age 18 to get a license merely to avoid the requirements and restrictions associated with GDL.

In conclusion, although there was little evidence that those who delayed licensure did so for the purpose of avoiding their state's GDL system, a substantial minority of all young people—and a majority of those who are black, Hispanic, or from low-income households—begin driving without the protection that GDL systems are designed to provide. Given the large proportion of new drivers who are 18 years old or older, further research is needed to investigate their levels of safety or risk, to evaluate the potential impacts of extending GDL systems to new drivers aged 18 and older, and to explore other ways to address the needs of older novice drivers."

Source: "Timing of Driver's License Acquisition and Reasons for Delay among Young People in the United States, 2012" August 2013 – AAA Foundation for Traffic Safety. (www.aaafoundation.org/sites/default/files/Teen%20Licensing%20Survey%20FINAL_0.pdf)

Licensing age seems to be the greatest influence on the safety of teen drivers, as observed in the following report:

The literature indicates that higher licensing ages are associated with safety benefits. There is an associated mobility loss, more likely to be an issue in rural states. Legislative attempts to raise the minimum age for independent driving in the United States—for example, from 16 to 17—have been resisted, although in some states the age has been raised indirectly through graduated driver licensing (GDL) policies".
The report concluded that: "*Jurisdictions can achieve reductions in teenage crashes by raising the licensing age. This can be done directly or indirectly by strengthening GDL systems, in particular extending the minimum length of the learner period".*

Source: "Licensing Age Issues: Deliberations from a workshop devoted to this topic. – Allan F.Williams et al, Traffic Injury Prevention Report June 2012."

MPI (CAC) 2

a. On page 16 reference is made to the Alberta Traffic Safety Plan. What is the basis for your evaluation of the Alberta Traffic Safety Plan?

Response:

Ms Johnson has been an adviser to the Alberta Transportation Office of Traffic Safety in the development and implementation of the Alberta Traffic Safety Plan since its inception (2007). Based on the results and progress of each year's activity, and in consultation with program managers, she has developed annual operating plans. During 2011 and 2012 Ms Johnson assisted in the development of the next strategic plan – to 2015, based on the Safe System Approach. In this role she has worked closely with the Director of Research to ensure all relative data is available. The Office of Traffic Safety is currently developing an RFP for a consultant to undertake a formal evaluation of the 5-yr Traffic Safety Plan.

b. Does the Alberta Traffic Safety Plan differ from the European model of Safe System Approach? If so, what are the differences?

Response:

The Alberta Traffic Safety Plan has been developed based on the principles of the Safe System Approach in Europe and Australia. As with all comprehensive traffic safety plans, they do need to be adapted to local conditions. Some of the components, such as promoting safer vehicles are in the developmental stages.

MPI (CAC) 3

Table 2 on page 10 shows a significant national decrease in the number of fatalities, serious injuries and injuries. Why do other provinces without a safety plan similar to Alberta's, experience a similar overall trending downward?

Response:

There is speculation within the road safety community across Canada that the downward trend in traffic collisions, injuries and fatalities during the last decade is in fact linked to the "recession", rather than an increased focus on road safety by the national, provincial/territorial, and local governments and other partners and stakeholders. Alberta's reduction in these numbers has been experienced during a period of significant economic growth in the province, particularly with young drivers and new drivers from other countries who have moved to Alberta to work in the oil and gas industry.

In addition, many of the vehicles purchased by new "Albertans" are newer models with many additional safety features, such as "collision-avoidance" systems (such as Electronic Stability Control – ESC) and "collision-protection" systems (such as side impact/curtain airbags).

Another reason for the downturn may also be that the numbers that are recorded by Transport Canada come from police reports and over the past decade many police agencies have reduced their attendance at collisions (by changing their benchmark as to re-define which collisions the police will attend). This may not have led to any change in the reporting of fatal collisions, but is has impacted the number of injury collisions that have been attended by police.

MPI (CAC) 4

On page 23 under the heading "Proven Road User Initiatives" it states: "A number of road user initiatives have proven to be effective in addressing the challenges of dealing with those who drink and drive, speed or drive aggressively or refrain from buckling up." Provide examples of such road user initiatives and the studies to support that these initiatives "show a clear positive effect on crashes".

Response:

Please access the RSV2015 website at CCMTA (Canadian Council for Motor Transport Administrators) – www.ccmta.ca. In navigating through the "initiatives" section, one can find specific initiatives through specific risk groups, contributing factors and strategy

type. An overview of the initiative is presented and the source where an evaluation has taken place.

An example follows:

Type: Road Users
Risk Group(s): Young Drivers Vulnerable Road Users High-risk Drivers General Population
Contributing Factor(s): Drugs Alcohol Distraction Fatigue Speed and Aggressive Driving Occupant Protection
Strategy Type(s): Communication/Awareness

Programs which provide public awareness and education to promote road safety for all the target groups through innovated media channels, where appropriate.

Performance Indicator(s)

- Education and awareness programs were demonstrated to be effective for targeted programs that support, and are supported by, enforcement. Uncertain effectiveness for stand-alone programs not supporting enforcement. The North Dakota and Amarillo campaigns are the only well-documented and successful examples. They used all the characteristics of effective communications and outreach campaigns: good target audience research, effective and creative message development, and good message placement using both paid and earned media. The overall South Central Region campaign produced only modest gains.

Source: Countermeasures That Work: A Highway Safety Countermeasure Guide For State Highway Safety Offices, Fifth Edition 2010

MPI (CAC) 5

On page 24 – Table entitled “Typical Advantages and Disadvantages of Different Sources of Financing for Road Safety” refers to sources of funding and includes “surcharges on compulsory vehicle insurance”. Please provide a list of jurisdictions that have instituted road safety surcharges on compulsory vehicle insurance. The list should specify the amounts of the surcharge and which organizations receive the funds collected through the surcharge.

There are 2 separate topics related to this question:

The first is the *surcharge* by which a premium might increase after a claim. The second “*surcharge*” is better described as a “*levy*”. The “pay as you go” concept is also discussed.

1.The ***surcharge*** by which a premium might increase after a claim

The surcharge schedule tends to differ from one insurer to another and also depends on a person’s driving record and the number of previous claims.

Some insurers don't increase the premium at all after an accident if it's the first one in a long period of time. Allstate, for instance, understands that accidents may happen to the best of drivers and has introduced the so-called "accident forgiveness program" where they bind themselves not to increase the premium if this is your first incident.

A report entitled **"The Role of the Motor Insurance Industry in Preventing and Compensating Road Casualties" was prepared in 2002 by TRL (Transport Research Laboratory in the UK).** Its overall aim was to identify how the motor insurance industry could assist in reducing the burden of road trauma in low Income Countries (LICs). An extract from it relates to the "bonus malus" system, which refers to the use of premium discounts for claim-free driving and surcharges for crash involvement. *"No-claims discounts (NCD) are still popular in the UK, British Columbia and Sweden, with discounts up to 75 per cent available in the UK. However, NCDs are easier to justify as a marketing tool rather than as an effective safety intervention. The effectiveness of NCDs has been doubted, if not rejected, for many years (OECD, 1990). Even in countries where NCDs are popular, such as the UK, the Association of British Insurers (ABI) acknowledges NCDs are not thought to be effective in reducing collisions. NCDs are believed by many to encourage non-reporting of claims, especially minor claims, rather than safer driving".*

ICBC's website reports – "All new B.C. drivers start out on our claim-rated scale at a base rate. Your insurance discount gets better every year you don't have an at-fault crash (An at-fault crash is a Collision or Third-Party Liability claim where you're found more than 25 per cent at fault). You can get up to 43 per cent off your Basic Autoplan premium if you're at level –9 on the claim-rated scale. Optional coverage savings could be even higher.

Remember that it's not just your own crashes that could count. If someone else drives your vehicle and has an at-fault crash, your claim record may be affected. If you're a driver with more than three at-fault crashes in three years, you'll pay a multi-crash premium. The multiple-crash premium was introduced on Sept. 1, 2000, to help reduce the number of crashes on our roads. We have found that by introducing the premium, drivers have become more considerate of their actions and are less likely to drive in a way that could cause a crash. If you are 50 per cent or more at fault for three crashes in three years, you may be required to pay $1,000, plus your Autoplan premium. For each additional crash within three years, you would pay an extra $500". ICBC's claims related scale is found in detail at http://www.icbc.com/autoplan-insurance/understand-costs/crs.pdf

SGI's website reports – "Drivers with at-fault collisions and more serious traffic convictions that put them in the Penalty Zone are assessed demerit points and a corresponding financial penalty for each incident they're involved in. Drivers in the Penalty Zone are assessed a financial penalty for certain driving incidents and are **not** eligible for a discount on their vehicle insurance. Details of the Penalty Zone can be found at:
http://www.sgi.sk.ca/individuals/registration/rates/financialpenalties/index.html

2. A "***levy***"

The Transport Accident Commission in the State of Victoria, Australia has introduced a very interesting initiative through the introduction of a motorcycle levy program. *"In 2002, following a review of the TAC premium paid by motorcycles (premium is paid on a vehicle), the Government decided that rather than increase the premium in-line with their costs to the TAC scheme, that it would place a motorcycle safety levy on the motorcycle premium. Initially $50, the levy was to go into a fund that would specifically be used to improve the safety of motorcycle riders. Initially the levy raised around $4 million per annum. Despite being very unpopular with motorcyclists, the levy has continued. Increasing numbers of motorcycle registrations means that the amount collected is now around $6 million per annum. The levy fund has supported a range of projects dedicated to improving rider safety. Examples of projects funded by the levy are:*

- *Road infrastructure treatments on many popular motorcycling routes*
- *Police enforcement activity (with a focus on motorcycle safety)*
- *Mass media public education campaigns*
- *Research*
- *A trial of on-road coaching as a safety measure*
- *Education materials on making roads motorcycle friendly for road designers and Constructors*

Source: "Road Safety – the Experience of the Transport Accident Commission in Victoria, Australia - Samantha Cockfield (TAC) for the International Transport Forum – September 2011".

3. "***Pay as you go"***

Another "*surcharge/incentive*" that has been the subject of much discussion over the past decade, is that of "pay-as-you-go" insurance which is a way of setting the driver premium based on the amount of miles the owner's vehicle is driven – which reflects *exposure* to being involved in a collision. (The less you drive – the less likely you are to be involved in a collision). But "*exposure*" is not the most significant attribute – as outlined in these scenarios: There are many long distance commercial transport/bus drivers who have driven millions of miles and never had a collision – on the other hand there are some drivers who do not drive very frequently who are involved in multiple collisions. What is more significant is "*risk*" – the principle on which Insurance is founded.

ICBC has now introduced reductions on premiums who are limiting their driving, but this is based on many other factors, such as time of day driving and the region/area of the primary driving. Premium reductions can be gained through "pleasure use only", "using the vehicle a reduced number of days per month" (suggesting that on the non-use days they car-pool or take transit). To date, to my knowledge, there have been no evaluations of this "incentive". Once again, this initiative may be closer linked to the provinces climate change initiative rather than to road safety.

MPI (CAC) 6

Throughout the report Ms. Johnson emphasizes the importance of program evaluation; can she provide best practices for evaluating the effectiveness of road safety education and awareness programs?

Response:

There are many good practice documents that can guide an overall program evaluation. Two have been selected for your information.

http://www.worldbank.org/transport/roads/saf_docs/campaign.pdf – "The design and evaluation of road safety publicity campaigns".

http://www.tmr.qld.gov.au/~/media/Safety/School%20road%20safety/Student%20driver%20education/Evaluation_guide.pdf – "A guide to evaluating road safety education programs for young adults." *(Of particular interest)*

MPI (CAC) 7

a. Regarding Collision patterns and trends – How does the fatality rate in Manitoba based on 100,000 population compare to the other western provinces, including Alberta?

Response:

Comparing traffic collision data between provinces and territories may be an interesting exercise to gauge a province's efforts against its neighbours – but it is not a straightforward task. This is why Canada has always had the provinces and territories making its own baseline measures and encourages focusing on their individual progress. Differences that may impact on driving and traffic collisions include:

- Climate – while the 4 western provinces have "similar weather" there are climatic differences even within a single province, that do impact on traffic safety, such as in the cities of Edmonton and Calgary
- Geography – which impacts the driving environment – such a winding and climbing 2 lane rural roads as composed with 6-lane divided highways
- Demographics – large amount of population living in large metro centres, as opposed to those who live in other large and small urban centres, and people who live in small rural communities in between; aged or young population; social economic status; and the amount of disposable income
- Alternative transport options, such as buses, light rail, commuter rail, etc.
- Vehicle fleet – which includes the vehicle mix (commercial transport, long distance buses, SUVs, pick-up trucks. saloon cars, motorcycles, mopeds, bicycles, etc.) and the age of the vehicle fleet.

While it would appear that the Province of Manitoba is the best performing province of the 4 western provinces, it is interesting to review their progress over the past 5 years.

The following chart presents the fatality rate per 100,000 population between 2005 (as reported in the RSV201 Mid-Term Review) and the 2010 data:

	Fatalities per 100,000 population 2005	Fatalities per 100,000 population 2010
BC	10.8	8.0
Alberta	14.3	9.2
Manitoba	9.6	7.0
Saskatchewan	14.8	16.0

b. Please provide any insights into the basis for statistical differences, particularly compared to Saskatchewan where the population, vehicle and driver counts are similar to Manitoba?

Response:

Much like Manitoba Public Insurance, SGI provides an Annual Traffic Collision Report. The latest one can be found at:

http://www.sgi.sk.ca/pdf/tais/TAIS_2011_Annual_Report.pdf

When reviewing the 2011 compared to 2010 it is interesting to note the following:

- Casualty collisions per 100 population indicate an increase of 9.8%
- Casualty collisions per 100 registered vehicles indicate an increase of 6.9%
- Casualty collisions per 100 licensed operators indicate an increase of 6.0%

The report adds the following disclaimer:

"*Due to differences in reporting definitions, the numbers of collisions and associated casualties published in this report do not necessarily reflect the collision and injury claims experience of the Saskatchewan Auto Fund. Traffic collisions are reported in the Traffic Accident Information System (TAIS) only when the estimated repair costs for all vehicles and property exceed $5,000 or personal injuries are sustained, whereas a collision claim may occur for any amount of property damage over the applicable deductible. Private property and parking lot collisions, as well as deliberate acts of vandalism or natural causes, are also not recorded in TAIS. Effective Jan. 1, 2010, the damage threshold for recording property damage only collisions from SGI's claims system into TAIS was increased from $1,000 to $5,000. This change resulted in a significant decrease of property damage only collisions entered into TAIS. For consistency, this threshold change was also applied to previous years of data shown in this publication to allow for comparison"*.

So despite the similarities in population, vehicle and driver counts between Saskatchewan and Manitoba, the differences in the statistics may only be due to different reporting requirements. It is unlikely though that this change has impacted the numbers of reported fatal and serious injury collsions.

MPI (CAC) 8

Is Ms. Johnson aware of Manitoba's Driver Safety Rating System? If so, please provide comments on the potential effectiveness of that program in influencing driver behaviour based on knowledge of best practice insurance rating schemes nationally and internationally.

Response:

See also response to question #5.

As discussed in the answer to Chapter 5, Bonus Malus is the standard by which premium discounts for claim-free driving and surcharges for crash involvement are set. The report cited also concludes that *"even in countries where NCDs are popular, such as the UK, the Association of British Insurers (ABI) acknowledges NCDs are not thought to be effective in reducing collisions".*

Responses to the CMMG

CMMG (CAC) 1

What is your experience and expertise in regards to wildlife/livestock collisions with motor vehicles?

Response:

As the Road Safety Program Manager for ICBC in the Kootenays (between 1987 and 1990), my role was to work with partners and stakeholders in all aspects of road safety. Wildlife collisions were an important issue at that time. I was very involved with a regional task force addressing wildlife collisions which involved the Ministry of Transportation, Ministry of Conservation (wildlife biologists), RCMP, Parks Canada (since theKootenay National Park was in the region), and a variety of local stakeholders from Rod and Gun clubs. During that time the committee:

- undertook several public awareness campaigns aimed at making drivers aware of the problem of wildlife on the highway (particularly tourists though the National Park)
- undertook various police enforcement initiatives aimed at reducing the speed of drivers on the high profile wildlife corridors
- studied the migratory courses of wildlife and identified “hot-spots”
- pilot-tested a variety of potential roadside countermeasures to prevent the wildlife from going into the road
- pilot-tested “swarflex” roadside reflectors (which resulted in no reduction in the number of road kills), and
- pilot-tested “on-vehicle” deer whistles once again without any concrete positive impacts.
- Parks Canada also experimented with overpasses and tunnels as a mean of keeping th wildlife from the highway, but again there were mixed results.

Unfortunatly most of these interventions did not demonstrate any positive benefits.

At the same time, the Ministry of Transportation was testing the use of high fencing, but again with little improvement.

As the Manager of ICBC’s Road Improvement Program (between 1990 and 2003), at the request of the Ministry of Highways in BC, I was asked to prepare a recommended investment strategy from the program for the provision of wildlife fencing. Based on the information provided and the potential for a benefit/cost analysis that was the foundation for the program, it was determined that the investment would not meet the program criteria.

As a result of a request from the Union of BC Municipalities, I was also asked to review the potential for providing the stockman/farmers’ association with funding to install

fencing to protect their livestock from being on the highway. Once again, the investment was not justified.

CMMG (CAC) 2

What initiatives would you favour for reduction in wildlife claims?

Response:

A primary activity needs to be reducing the speeds of vehicles in areas of high numbers of wildlife, particularly at specific locations, times of day and months of the year when wildlife are active. In addition, the best defence for the vehicle occupants is that they should all be restrained.

I believe there is little impact in the use of the "leaping stag sign". Drivers see these all the time (and never see wildlife on the road) and tend to discount their warning. An improvement here might be the use of "dynamic warning signs" which are only active when needed.

There seems to be greater promise in the use of in-vehicle ITS measures (Intelligent Transportation Systems) such as advanced recognition (alerting) programs and the potential for the vehicle to take automatic action, such as reducing the speed.

CMMG (CAC) 3

Have you reviewed the efficiency of wildlife barriers, fencing, etc on reduction of claims?

Response:

The following study – "Highway3: Transportation Mitigation for Wildlife and Connectivity – May 2010" includes an outline of the potential measures and their effectiveness.

> http://www.westerntransportationinstitute.org/documents/reports/4W2531_Final_Report_Unabridged.pdf

CMMG (CAC) 3

Are you aware of jurisdictions that have made investments in barriers, fencing, etc. and are you aware of their experience or conclusions?

Response:

I am not personally aware of any jurisdictions that have made positive investments in road infrastructure programs other than in the reports mentioned below.

The following reports might contain further information sources:

"Wildlife-vehicle collisions in Canada**:** A review of the literature and a compendium of existing data sources" – Traffic Injury Research Foundation (TIRF) www.tirf.ca.

The Wildlife Collision Prevention Program (WCPP)

According to its website: “The Wildlife Collision Prevention Program (WCPP) was formed in 2001, as a partnership between the British Columbia Conservation Foundation (BCCF) and the Insurance Corporation of British Columbia (ICBC), in response to the increasing number and severity of wildlife vehicle collisions in BC. WCPP is administered by the British Columbia Conservation Foundation (BCCF), with funding and support from government agencies, crown corporations, and both public and private organizations. With our partners, WCPP is researching, evaluating and implementing projects that promise to enhance the safety of both the public and wildlife populations.

BCCF was founded in 1969 under the guidance of the BC Wildlife Federation, and is a not for profit registered organization dedicated to the conservation and stewardship of B.C.'s ecosystems and species”.
Source: http://www.wildlifecollisions.ca/reports.htm