

Ministry of Transportation and Infrastructure

**Engineering Services** 

Sent via Email

Date: February 14th, 2023

Graeme Schimpf District Manager, Transportation Thompson Nicola District 127-447 Columbia Street Kamloops, BC, V2C 2T3

## Re: Safety Performance Analysis of Highway 5A (Merritt to Kamloops)

Dear Graeme,

Further to the McElhanney report entitled "*Highway 5A Safety Review – Merritt to Kamloops, March 9, 2022, Final Report*", the Ministry also carried out a safety performance quantitative evaluation of Highway 5A - Merritt to Kamloops with more recent collision data and further analysis specific to trucks.

The McElhanney report utilized collision data from 2005 - 2019 and radar-collected volumes from 2021. The updated Ministry review obtained collision data from the Ministry's Collision Information System from 2016 - 2020 (Figure 1) and traffic volume data from Uniform Traffic Volume Sections (UTVS), derived from various provincial count stations. Based on both the McElhanney report and the Ministry review, it is generally observed that collisions are trending down.

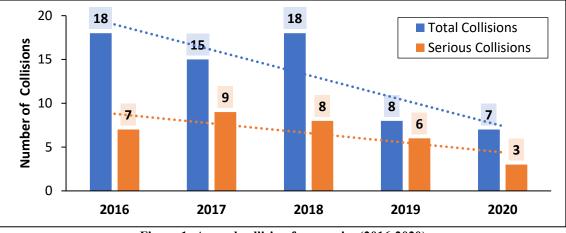


Figure 1: Annual collision frequencies (2016-2020)

Both the McElhanney report and the Ministry review showed that for all vehicles, the collision rate was below the provincial average; however, the collision severity index exceeded the provincial average. The Ministry's review further analyzed the safety performance of commercial vehicles. Truck-related collisions represent 44% of total collisions (29 out of 66) and are generally trending down (**Figure 2**). The estimated collision severity index of truck-related collisions (Truck CSI) is 8.8 and is lower than the average provincial truck CSI of 10.1 for the same class and volume range highways.

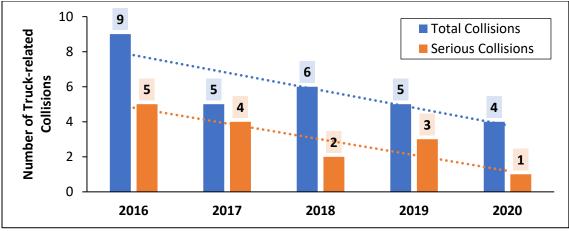


Figure 2: Annual frequency of truck-related collisions (2016-2020)

Appendix A summarizes the findings of the Ministry's review.

Disclaimer: The source of collision data is the Insurance Corporation of British Columbia (ICBC).

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Highway 5A from Merritt to Kamloops (2016-2020) Highway Class: Rural Arterial Undivided 2/3-Lane (RAU2)		
Site Details	LKI Segment (version 202107)	1721 (km 1.8 - km 84.2)
	Segment Start to End	200m North of Swakum Mountain Rd to Sign: Entering Kamloops
	Segment Length	82.4 km
	Total Collisions	66 collision/5 years (4 Fatal, 29 Injury, 33 PDO)
	Average Annual Frequency	13.2 Collision/Year
	AADT (5-year average)	2,763 Vehicles
Collision Rate (CR)	CR of Highway 5A	0.158
	Provincial Average CR (Class RAU2 and AADT of less than 5,000)	0.347
	Critical Collision Rate	0.370
	CR exceeds Critical Collision Rate?	No
Collision Severity Index (CSI)	CSI of Highway 5A	10.95
	Provincial Average CSI (Class RAU2 and AADT of less than 5,000)	8.31
	CSI exceeds Provincial Average CSI?	Yes
Truck Collision Severity Index (Truck CSI)	Truck Collisions	29 collision/5 years (1 Fatal, 14 Injury, 14 PDO)
	Truck CSI of Highway 5A	8.8 (Fatal: 3.4%, Injury: 48.3%, PDO: 48.3%)
	Provincial Average Truck CSI (Class RAU2	10.1
	and AADT of less than 5,000)	(Fatal: 5.7%, Injury: 38.3%, PDO: 56%)
	Truck CSI exceeds Provincial Average Truck CSI?	No

Appendix A: Summary of the Ministry's review findings with truck details.