
For Information

REPORT TITLE: **2019 Vision Zero Road Safety Strategic Plan Update – Year Two**

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OBJECTIVE

To provide the 2019 update on the Vision Zero Road Safety Strategic Plan, representing the second year of program implementation. This report summarizes road safety trends for the Regional road network and highlights countermeasures implemented in 2019 to improve road safety.

REPORT HIGHLIGHTS

- In September 2018, Regional Council approved the implementation of the Vision Zero Road Safety Strategic Plan to reduce and ultimately eliminate fatal and injury motor vehicle collisions in Peel.
 - Six emphasis areas were identified as priorities for safety improvement including intersections, aggressive driving, distracted driving, impaired driving, pedestrians and cyclists.
 - Numerous action items were implemented throughout 2019 to advance safety within the six emphasis areas, including the construction of fully protected left turn signals, distracted and impaired driving initiatives and campaigns, expansion of the Red Light Camera program, development of Automated Speed Enforcement program, and the addition of cycling infrastructure.
 - In 2019, fatal collisions on Regional roads decreased by 29 per cent and injury collisions decreased by 15 per cent (per 100,000 population) as compared to the baseline year of 2017.
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DISCUSSION

1. Background

Vision Zero is a strategy to eliminate all traffic fatalities and injuries while increasing safe, healthy and equitable mobility for all. It prioritizes safety over speed, convenience and cost, and accepts that the road system must be forgiving of human error. In December 2017, Region of Peel Council adopted the Vision Zero Framework (Resolution 2017-990) to better coordinate efforts and resources among agencies and stakeholders to reduce fatal and injury motor vehicle collisions in Peel. This program supports the Term of Council Priority to 'Advance Community Safety and Well-being'.

2019 Vision Zero Road Safety Strategic Plan Update – Year Two

In September 2018, Council subsequently adopted the Region's Vision Zero Road Safety Strategic Plan that envisions 'zero fatal and injury collisions for all road users' with a goal of '10 per cent reduction in fatal and injury collisions by 2022'. The Plan acknowledges that fatal and injury collisions are preventable and can eliminate them with measurable strategies. The Plan contains action items that address the "4-Es" of road safety:

- engineering changes to the physical roadway,
- education are the measures that change road user behaviour,
- enforcement of the rules of the road, and
- empathy helps drivers understand the consequences of their actions.

It is based on shared responsibilities, where all stakeholders have a part to play to make the program successful.

In October 2018, staff began implementing the actions identified in the Plan.

The Region has now completed the second year report, showing collision trends and the progress of action items implemented in 2019.

2. Current Status – Safety Outcome Trends

In 2019 there were a total of 417 reported collisions on Regional roads per 100,000 population, including fatal, non-fatal and property damage type collisions. This represents a five per cent increase as compared to the baseline year of 2017, as shown in Table 1.

While the total number of collisions on Regional roads have increased in 2019, the fatal collisions have decreased by 29 per cent and injury collisions have decreased by 15 per cent per 100,000 population, when compared to the baseline year of 2017. It is important to note that many factors contribute to these results, well beyond the Vision Zero program. While these trends are very encouraging, it is understood that lasting culture change in support of Vision Zero principles is a multi-year journey.

Table 1: Total Collisions Statistics, the Region of Peel Road Network (2017 - 2019)

Collisions per 100,000 population	2017 Baseline	2018	2019	Per cent (%) Change 2019 compared to 2017
Total Collisions on Regional Roads, fatal, injury and property damage	396	439	417	5 % increase
Number of Fatal Collisions	0.7	0.8	0.5	29 % decrease
Number of Injury Collisions	60	57	51	15 % decrease








2019 Vision Zero Road Safety Strategic Plan Update – Year Two

Table 2 below provides trending statistics for each of the six emphasis areas. These metrics are based on per 100,000 population for 2019, and compared to the baseline year of 2017.

In general, collision trends related to aggressive driving and pedestrians remains relatively flat, whereas collisions related to intersections, distracted driving and cyclists showed improvement.

In contrast, fatal and injury collisions related to impaired driving show an upward trend since 2017. Peel Regional Police and the Ontario Provincial Police-Caledon Detachment recognize that impaired driving is a serious road safety issue and has been a causal factor in an increasing number of preventable fatal and injury collisions. They continue to take proactive measures like increased visibility, enforcement and public education to try and reverse this trend.

Table 2: Trending Statistics - Fatal and Injury Collisions, the Region of Peel Road Network (2017-2019)¹

Emphasis Areas	Fatal and Injury Collisions* (per 100,000 population)			Per cent (%) Change 2019 compared to 2017
	2017 ² Baseline	2018 ²	2019 ²	
Total Fatal and Injury Collisions	61	58	52	15 % 
Intersection Collisions	45	45	40	11 % 
Aggressive Driving	26	26	25	4 % 
Distracted Driving	23	19	20	13 % 
Pedestrian Collisions	7	6	6	14 % 
Cyclist Collisions	0.8	0.5	0.4	50 % 
Impaired Driving	2.2	2.6	3.2	45 % 

¹ the data only reflects reported collisions on roads under the jurisdiction of Region of Peel. Collisions on municipal roads, private property, unreported collisions are not included.

*Collisions reported might have emphasis area overlap. For e.g. one collision might have involved an impaired, aggressive driver at an intersection striking a pedestrian.

² the population data was obtained from Peel Data Centre and is as follows 2017 – 1,452,597, 2018 – 1,479,139 and 2019 – 1,494,747.

2019 Vision Zero Road Safety Strategic Plan Update – Year Two

3. Vision Zero Action Items Completed in 2019

The Vision Zero Road Safety Strategic Plan began with a comprehensive assessment of the Region's existing road safety conditions and programs. The top six areas that require improvement were identified based upon the collision analysis of all the data, including data from the local municipalities. These are referred to as the six emphasis areas in the Plan.

The following summary provides an overview of the key action items implemented in 2019 under each of the six emphasis areas.

Intersection Collisions

This emphasis area aims to prevent intersection collisions, of which rear-end collisions are the most common.

- Seven fully protected left turn signal locations were implemented in 2019, where vehicles can only turn left on a green arrow. This type of operation is effective at reducing driver decisions and reducing the probability of left turning vehicular collisions
- Traffic signal network progression was reviewed and improved on 18 road corridors, resulting in a 14 per cent improvement to flow. This involves coordinating traffic light timing to improve flow through a series of green lights, provided the driver is travelling the speed limit. This serves to improve air quality by reducing vehicle idling, improves travel time by reducing stops and encourages compliance to the speed limit. Additionally, better traffic flow reduces the probability of rear end collisions from stopping and starting cycles at intersections.

Aggressive Driving

Aggressive driving includes any driving behavior performed deliberately with ill intention or disregard for the safety of others on the road.

- The red light camera program was expanded in 2019 and cameras were installed at the following five locations:
 - Derry Road West and Syntex Drive / Syntex Court
 - Queensway East and Camilla Road
 - Britannia Road West and Grossbeak Drive / Delle Donne Drive
 - Britannia Road West and Tillsdown Drive / River Grove Avenue
 - Cawthra Road and Atwater Avenue

On average, fatal and injury collisions decreased by 73 per cent and property damage collisions decreased by 78 per cent in 2019 when compared to the baseline year of the camera installation.

- A vehicle activated traffic calming sign was installed on King Street between Station Road and Coleraine Drive in the Town of Caledon, resulting in a five per cent reduction in vehicle speeds. These are traffic calming signs with an LED light and radar speed detector that show the speed of vehicles as they approach, flashing the words 'Slow Down' when vehicles are moving too fast.

2019 Vision Zero Road Safety Strategic Plan Update – Year Two

Distracted Driving

Distracted driving occurs when a driver's attention is not on the road, including the use of hand-held devices.

- 2124 tickets were issued by Peel Regional Police and Ontario Provincial Police-Caledon detachment through enforcement of the *Highway Traffic Act* for violations related to distracted driving such as using cell phones while driving.
- Seven distracted driving initiatives and campaigns were conducted throughout 2019, delivered by Peel Regional Police and Ontario Provincial Police-Caledon detachment.

Impaired Driving

Impaired driving includes collisions where a driver is identified as 'impaired' or having a blood alcohol concentration of more than 80 milligrams or more of alcohol per 100 milliliters of blood, or 0.08.

- 26,995 Reduce Impaired Driving Everywhere (RIDE) spot checks were conducted, resulting in 542 license suspensions in 2019. Peel Regional Police and Ontario Provincial Police-Caledon detachment laid a total of 1831 charges pursuant to the Criminal Code of Canada in relation to impaired driving.

Pedestrians

This category aims to reduce collisions between vehicles and pedestrians.

- A midblock pedestrian crossing signal was installed on Airport Road, 300m south of Clark Boulevard in 2019. A midblock pedestrian crossing signal is a controlled crossing that provides pedestrians with a safe way to cross the road between intersections.
- Six pedestrian countdown signals were installed at Regional intersections in 2019. Pedestrian Countdown Signals provide a countdown display of the seconds remaining in the flashing Don't Walk interval at an intersection.
- Provisions are included where possible for temporary sidewalks and multi-use trails through construction projects to provide safer access to pedestrians.

Cyclists

These countermeasures are designed to reduce collisions involving cyclists within the road right of way.

- In total, approximately 11km of cycling infrastructure was built in 2019, which includes a combination of multi-use paths, sidewalks, and paved shoulders. Similarly, provisions are included for the safer passage of cyclist through construction projects.
- Two bicycle signals and two crossrides were implemented in 2019. Bicycle signals and crossrides are dedicated spaces identified by unique pavement markings for cyclists to legally ride their bicycles across a roadway without dismounting.

2019 Vision Zero Road Safety Strategic Plan Update – Year Two

A full list of countermeasures implemented in 2019 can be found in Appendix I – ‘Region of Peel Vision Zero Annual Road Safety Report – 2019 Year Two’.

4. New Programs and Technologies Initiated in 2019

The Region continues to work with its partners and stakeholders to improve safety by updating practices and procedures, testing new programs and initiatives, and exploring new technologies. The following programs were rolled out or initiated in 2019 to improve safety.

Automated Speed Enforcement (ASE) – ASE is an electronic enforcement system that uses a camera and a speed measurement device to identify drivers exceeding speed limits in school zones and community safety zones. In 2019, school zones and community safety zones along Regional roads in the Town of Caledon were reviewed for speed data and roadway geometrics to determine where ASE could be implemented. The Region identified six locations and has installed a camera at Robert F. Hall Catholic Secondary School on Old Church Road east of Innis Lake Road, with the intention of rotating the existing camera to the other five selected locations in the Town of Caledon by 2021.

Automated School Bus Stop Arm Camera – Automated school bus stop arm cameras refer to an enforcement system that would use images of vehicles passing school buses illegally to ticket violations. Regional staff are currently working with various partners, stakeholders, technical staff and specialists to implement an automated school bus stop arm camera enforcement program in Peel Region in partnership with Student Transportation of Peel Region (STOPR), targeting rollout for September 2021.

Vision Zero Road Safety Culture - As part of the Road Safety Strategic Plan, the Region aims to promote a ‘road safety culture’ by encouraging people to place themselves in the situation of other road users to appreciate the potential consequences of their actions. The Region will adopt a two-step approach to first understand and then address issues of internal and external road safety culture. A community road safety survey will be used to gain a baseline understanding of residents’ perceptions, behaviors and thoughts towards road safety. At the same time, the Region will conduct an internal gap analysis to identify how road safety is considered in policy, planning, design, operations and maintenance of the transportation system within the Region of Peel. These surveys will be conducted and completed by the end of 2020. Together, the survey data and gap analysis will provide greater insight into road safety culture. This information will then be used to guide subsequent actions within the Road Safety Strategic Plan. These actions will help to embed empathetic road safety culture as a core value in decision-making both externally within the community and internally as an organization.

5. Ongoing Program Updates

The Region has a wide range of programs and initiatives that are delivered on a regular basis to promote road safety.

In-Service Road Safety Audits and Reviews - Audits examine road locations in detail to assess operating conditions and identify short-term and long-term actions that could be taken to improve overall safety. Audits are conducted annually and on an as-needed basis. Locations with similar physical and traffic characteristics are categorized and ranked, thereby prioritizing staff efforts and annual spending on safety improvements. In 2019, the

2019 Vision Zero Road Safety Strategic Plan Update – Year Two

Region conducted safety audits at 21 locations. Reviews are high-level analysis intended to identify larger trends and contributory causes of collisions at a location. In 2019, the Region conducted road safety reviews at 46 locations

Education and Outreach Programs - Education and outreach efforts aim to increase awareness of road safety, while empowering all road users to make safer choices and adopt empathetic behaviour. The Region, local municipalities, community partners and the police services undertook social media campaigns from June to October 2019 on topics including pedestrian and cycling safety to raise public awareness. Staff also provided interactive education to the public at events including Bramalea Cyclefest, Caledon Day event, Mississauga Cycles family day.

Red Light Camera Program - This program continues to demonstrate that Red Light Cameras are an effective tool in helping to reduce right angle collisions at intersections. There are 33 active Red Light Cameras in the Region, with a new camera to be installed at the intersection of Mayfield Road at Kennedy Road in the Town of Caledon. Staff will continue to review the success of the program in 2021 in anticipation of further expansion in 2022.

Collaboration and Cooperation - One of the key benefits of the Plan is the collaboration between partners and stakeholders to implement the actions of the Plan, leverage shared resources, and ensure consistent messaging across various organizations. The Vision Zero Task Force met twice in 2019 to facilitate collaboration between partners and collectively implement the Vision Zero Road Safety Strategic Plan. In addition to the Task Force, other areas of collaboration and cooperation include the Fatal Collision Review Committee, the Vision Zero Education and Awareness Working Group, Mississauga Road Safety Committee, the Caledon Active Transportation Task Force and the Road Safety Committee of Ontario (ROSCO).

CONCLUSION

In 2019, the collision trend for each of the six emphasis areas continues to decline with the exception of impaired driving. As outlined in the report, a number of measures were put in place including fully protected left turn signals, distracted and impaired driving initiatives, along with the expansion of the Red Light Camera program, the introduction of the Automated Speed Enforcement program and added cycling infrastructure.

Promoting safety and well-being and mitigating road safety risks require the continued and sustained efforts from all partners and stakeholders. The Region will continue to coordinate, monitor and implement road safety initiatives and targeted, pro-active campaigns that help drive changes to road user behaviour to support the goal of the Road Safety Strategic Plan and the priorities identified within it.

APPENDICES

Appendix I - Region of Peel Vision Zero Annual Road Safety Report – 2019 Year Two

2019 Vision Zero Road Safety Strategic Plan Update – Year Two

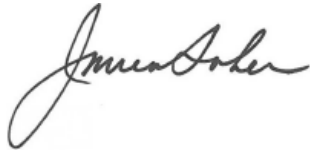
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Reviewed and/or approved in workflow by:

Department Commissioners, Division Directors, Medical Officer of Health and Financial Support Unit.

Final approval is by the Chief Administrative Officer.

A handwritten signature in black ink, appearing to read 'J. Baker', is positioned above a horizontal line.

J. Baker, Chief Administrative Officer