THE REGIONAL MUNICIPALITY OF NIAGARA
PUBLIC WORKS COMMITTEE
AGENDA

PWC 4-2025
Tuesday, April 8, 2025
9:30 a.m.
Council Chamber - In Person and Electronic Meeting
Niagara Region Headquarters, Campbell West
1815 Sir Isaac Brock Way, Thorold, ON

To view live stream meeting proceedings, visit: niagararegion.ca/government/council

---

Pages

1. CALL TO ORDER

2. LAND ACKNOWLEDGEMENT STATEMENT

3. DISCLOSURES OF PECUNIARY INTEREST

4. PRESENTATIONS

5. DELEGATIONS

6. ITEMS FOR CONSIDERATION

6.1 PW 16-2025 — 3 - 64
Vision Zero Road Safety Strategic Plan

A presentation will precede the consideration of this item.

6.2 PW 18-2025 — 65 - 71
Request for Additional Funds for Quarry Road Landfill Leachate Management System Upgrades

7. CONSENT ITEMS FOR INFORMATION

7.1 PWC-C 1-2025 72 - 109
Update on Public Works Capital Projects – Q1 2025

8. OTHER BUSINESS

9. NEXT MEETING

The next meeting will be held on Tuesday, May 6, 2025, at 9:30 a.m. in the Council Chamber, Regional Headquarters.

10. ADJOURNMENT

If you require any accommodations for a disability in order to attend or participate in meetings or events, please contact the Accessibility Advisor at 905-980-6000 ext. 3252 (office), 289-929-8376 (cellphone) or accessibility@niagararegion.ca (email).

PW 16-2025 Road Safety Strategic Plan Presentation

Public Works Committee
April 8, 2025

Frank Tassone, Director Transportation Services

Scott Fraser, Associate Director Transportation Planning

Road Safety Strategic Plan

Public Works Committee

April 8, 2025

Frank Tassone, Director, Transportation Services
Scott Fraser, Associate Director, Transportation Planning

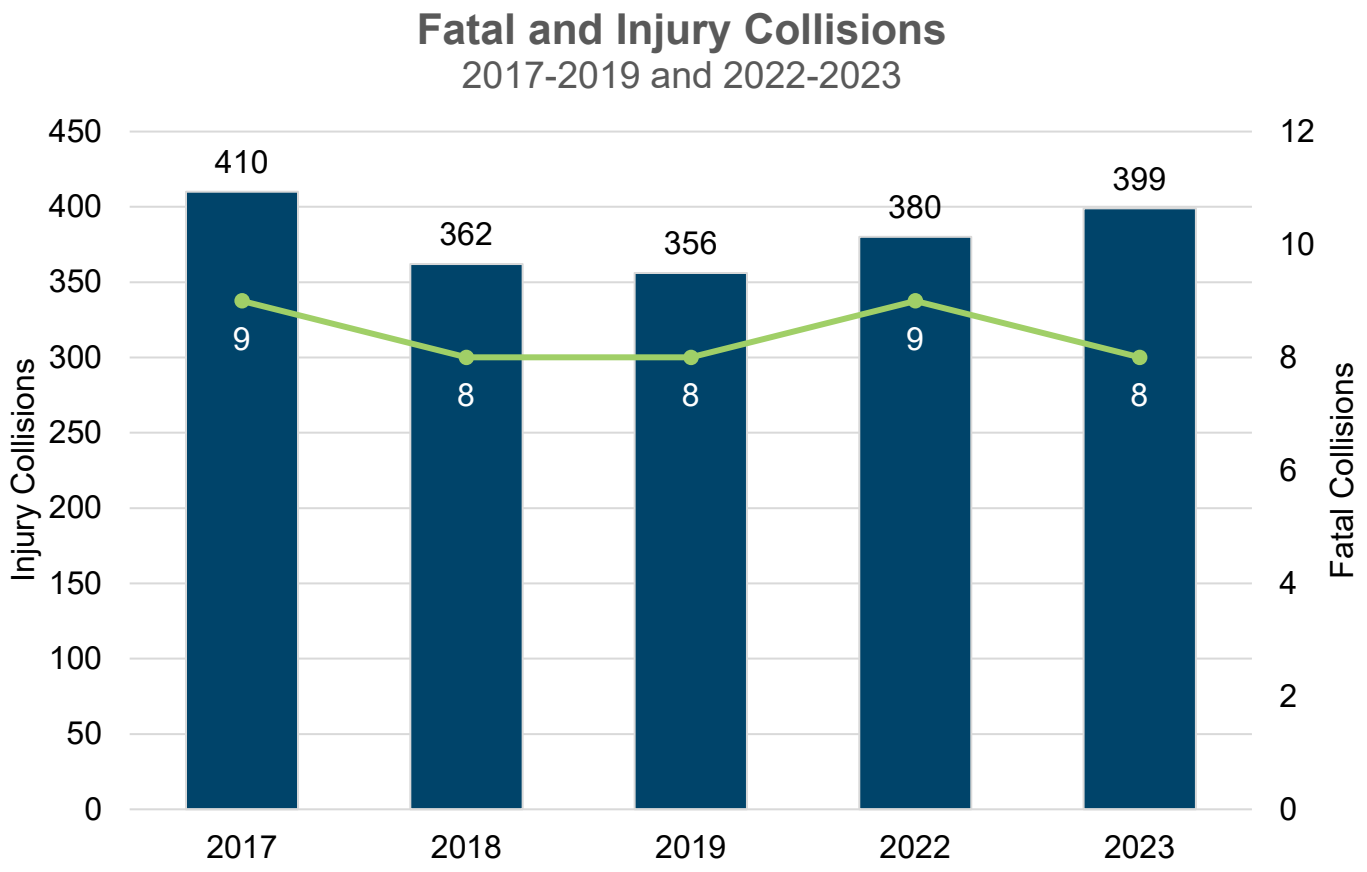
Niagara Region | Growing Better Together

Outline

- Road Safety in Niagara Today
- Developing a Road Safety Strategy
- Emphasis Areas & Countermeasures
- Action Plan
- Monitoring and Improving

Road Safety in Niagara Today

- Data indicates a recent increase in the number of injury collisions on Regional Roads.
- There is an average of 8-9 fatal collisions per year.
- A targeted road safety strategy is required to address this challenge.



Niagara Region | Growing Better Together

Heat Map

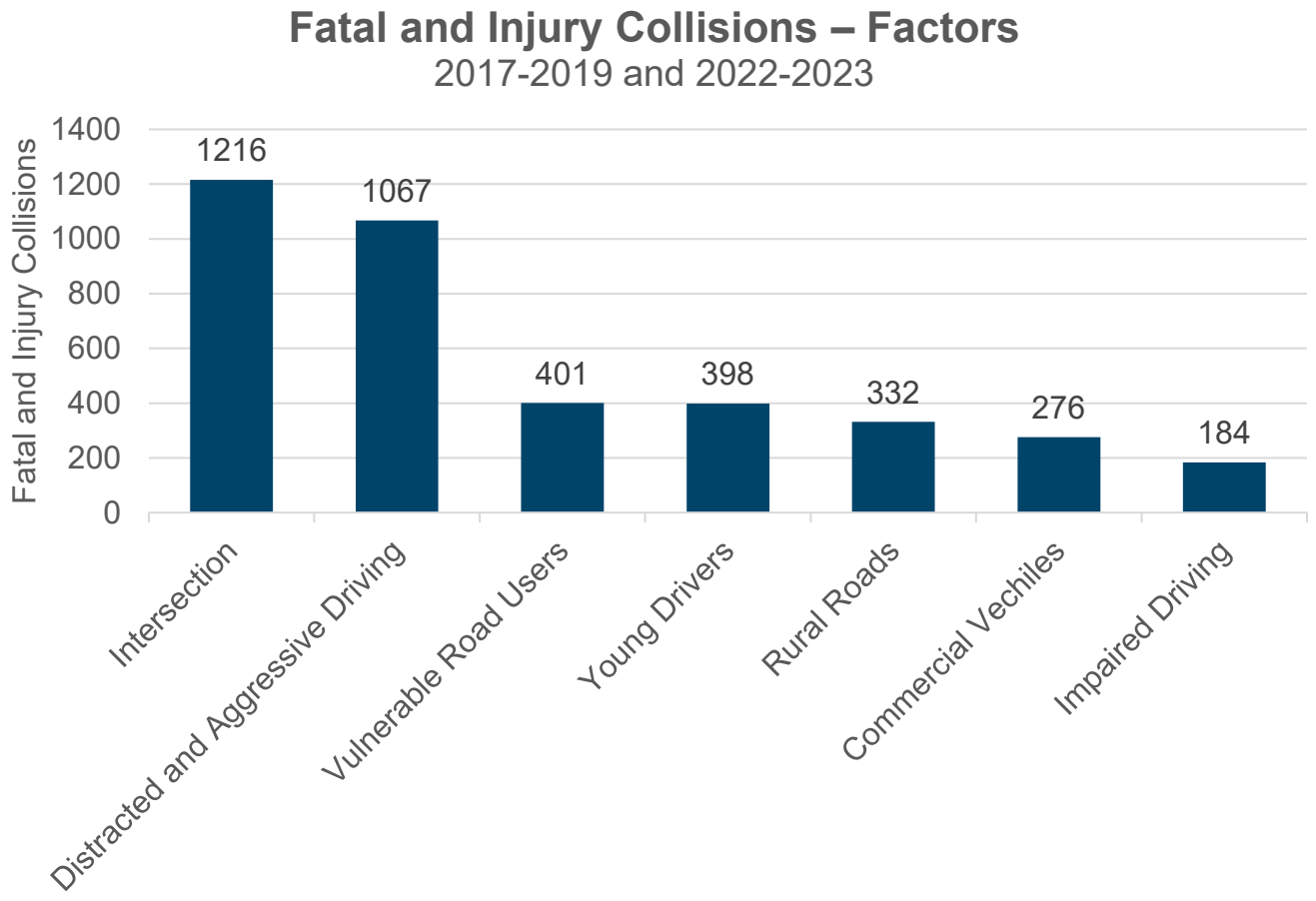

Legend
Heatmap
Non Fatal Injury Collisions
Fatal Collisions
Local Roads
Regional Roads
Highways
Urban Areas
Niagara Region Boundary
N
W
E
S
0 2 5 9 14 18
Kilometers
Esri, HERE, Garmin, USGS, EPA, NRCan

Developing a Road Safety Strategy

- The **Road Safety Strategic Plan** will be our roadmap to improve the safety of the Regional Road network
- Aligned with the worldwide Vision Zero initiative
- Follow a data-driven approach to address collision trends
- Establish a clear framework for investment of road safety resources

Niagara Region | Growing Better Together

Emphasis Areas and Countermeasures



More than half of all serious collisions in Niagara either occur at an **intersection** or are related to **aggressive and distracted driving**.

Emphasis Areas and Countermeasures

Engineering

Changes to the physical geometry of the roadway

Enforcement

Improve compliance and encourage desirable behaviours

Education

Enhance road user knowledge and awareness

Action Plan

- A three-pronged data driven **Action Plan** identifies high-collision locations and will recommend countermeasures to reduce collisions.
- Available resources are targeted where they will have the most impact

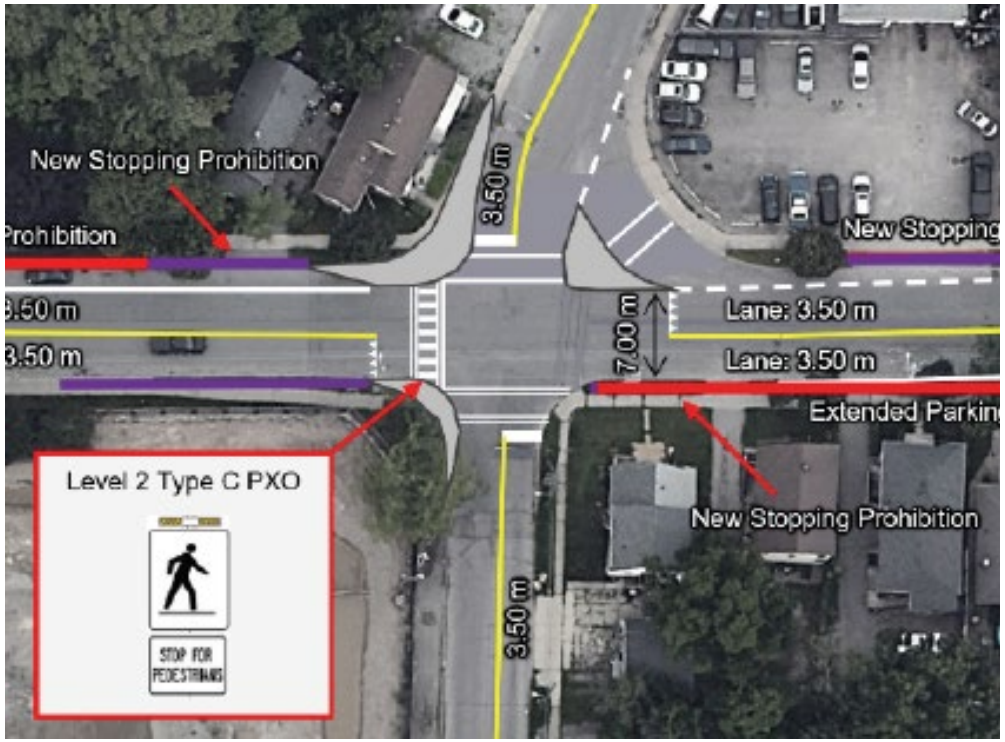
1. **Incorporate Road Safety in Capital Projects**
2. **Directly Target High-Collision Areas**
3. **Network-wide Countermeasure Programs**

1 Incorporate Road Safety in Capital Projects

- Planned road reconstruction projects are prioritized as they provide the best opportunity for meaningful safety improvements.
- Many projects are in Niagara's highest-collision areas.
- **Road Safety Audits** will formalize existing practices of incorporating safety into major road reconstruction projects.

2 Directly Target High-Collision Areas

- Use **Network Screening** to identify locations with the highest potential for safety improvement that are not already addressed by a capital project.
- Complete five (5) annual **In-Service Road Safety Reviews** targeting these locations.
- Recommendations from the previous year's safety reviews will be implemented annually.



3 Network-wide Countermeasure Programs

- Implement network-wide countermeasures across the region.
  - Speed Display Boards
  - Traffic Calming Bollards
  - Education Campaigns
- Each initiative will be tied to quantitative criteria to determine locations.
- Funding is allocated to each emphasis area based on its proportional share of collisions.

Investment

- Total estimated cost of $5.61M across two years (2025-2026) to fund the action plan.
- In 2025:
  - $1.75M in previously approved capital funding to support safety review implementation and traffic calming equipment.
  - $1.50M in a pending transfer from the Vision Zero Road Safety Program Reserve to the Road Safety Programs operating budget to support conduct of new safety reviews, a sightline review study, and education campaigns.

Investment

- A one-time budget amendment is required to transfer 2024 net automated enforcement revenues from the Vision Zero Road Safety Program Reserve.
  - This transfer will have no impact on the 2025 general tax levy.
- In 2026:
  - $1.50M capital budget request to fund construction of countermeasures from reviews completed in 2025
  - $0.86M transfer from the Vision Zero Road Safety Program Reserve to the Road Safety Programs operating budget to support roadside safety reviews and continued education campaigns

Monitoring and Improving

- The Plan identifies two Key Performance Indicators.
- The goal is an ongoing reduction in the number of serious collisions.
- An annual report will update progress.

83

Fatal and Injury Collisions per 100,000 residents

623

Total Collisions per 100,000 residents

Questions

Subject: Vision Zero Road Safety Strategic Plan

Report to: Public Works Committee

Report date: Tuesday, April 8, 2025

Recommendations

1. That Regional Council **APPROVE** the Vision Zero Road Safety Strategic Plan (the Road Safety Plan) attached as Appendix 1 to Report PW 16-2025; and
2. That an amendment to the 2025 Operating Budget **BE APPROVED** by Regional Council at its meeting on April 24, 2025, subject to the provision of required public notice in advance in accordance with the Niagara Region's Public Notice Policy C-RC-005, to seek approval for a one-time transfer of $1,498,348.93 from the Vision Zero Road Safety Program Reserve to the Road Safety operating budget, in order to fund works to implement the Road Safety Plan including as outlined in Appendix 2 to Report PW 16-2025.

Key Facts

- This report seeks Council approval for the Road Safety Plan, which aims to reduce and eventually eliminate injuries and fatalities on the Regional road network.
- Between eight and nine fatal collisions occur each year on Regional roads. Data indicates a recent increase in the number of injury collisions year over year.
- The Road Safety Plan identifies the most common factors involved in collisions in Niagara and outlines actions to reduce their frequency and severity.
- A three-pronged data-driven Action Plan identifies high-collision locations and will recommend countermeasures to reduce collisions. Pending Council approval, countermeasure implementation will begin in Spring 2025 and progress will be monitored through key performance indicators (KPIs).
- This report recommends that an amendment to the 2025 Operating Budget be approved by Regional Council at its meeting on April 24, 2025. The amendment seeks to transfer $1,498,349 from the Vision Zero Road Safety Program Reserve into the Road Safety operating budget to fund activities outlined in the Road Safety Plan. The transfer will have no impact on the 2025 general tax levy.
- Going forward, transfers from the Vision Zero Road Safety Program Reserve will take place through the regular budget process. This amendment is necessary

because 2024 marked the first year in which net revenues were available from automated enforcement, however, the amount of available funds was unknown at the time staff were preparing the 2025 budget.

Financial Considerations

Financial Considerations of the Road Safety Plan

This section provides an estimate of costs for implementing the recommendations of the Road Safety Plan, which outlines a two-year workplan.

The total estimated cost of road safety initiatives recommended by the Road Safety Plan is $5,610,864. This sum represents a combination of operating and capital investments that provide for the following:

- Road safety reviews of planned roads projects and high collision areas.
- Construction of countermeasures in high collision areas identified through reviews.
- Implementation of Region-wide countermeasure programs (e.g. speed bollards/traffic calming).

Details of the action plan identified for 2025 (cost of $3,248,349) and for 2026 (cost of $2,362,515) can be found in Appendix 2 to Report PW 16-2025.

2025 road safety initiatives will be funded from:

- Previously approved capital funding of $1,750,000 through Project 20001939 (Road Safety Strategic Plan) to support initiatives such as safety review implementation and the purchase of traffic calming equipment.
- The recommended transfer of $1,498,349 from the Vision Zero Road Safety Program Reserve to the 2025 Vision Zero Road Safety Programs operating budget within Transportation Services to support initiatives such as the conduct of new safety reviews, a sightline review study, and education campaigns.

2026 road safety funding will be proposed as follows:

- A 2026 capital budget request in the amount of $1,500,000 to fund construction of specific countermeasures resulting from In-Service Road Safety Reviews completed this year.

- A 2026 operating budget request in the amount of approximately $862,515 funded from the Vision Zero Road Safety Program Reserve to support roadside safety reviews and continued education campaigns.

Transfer Required from Vision Zero Road Safety Reserve

A one-time transfer of $1,498,349 from the Vision Zero Road Safety Program Reserve is recommended to fund the 2025 road safety initiatives. This transfer will have no impact on the 2025 general tax levy.

The amount in the Vision Zero Road Safety Program Reserve of $1,498,349 equates to the Region's share of 2024 net revenues from automated enforcement. The proposed use of these funds aligns with the Niagara Region Courts Inter-Municipal Agreement, which mandates that net revenues from automated enforcement be reinvested into road safety programs.

As 2024 is the first year to see net revenues from automated enforcement, the timing did not align to include these funds in the 2025 Operating Budget. As a result, a one-time budget amendment is required.

In order to transfer $1,498,349 from the Vision Zero Road Safety Program Reserve to the 2025 Vision Zero Road Safety Programs operating budget within Transportation Services, an amendment to the previously adopted 2025 Operating Budget is required.

Future budgets will include the forecasted net revenues from automated enforcement, eliminating the need for further budget amendments related to the Vision Zero Road Safety Program Reserve.

As per Budget Control By-Law No. 2017-63, "Budget Amendment" means a change to the Operating or Capital Budget that results in an increase to expenses funded by Reserves. Budget amendments require Council's approval and require notice to be provided in accordance with Niagara Region's Public Notice Policy C-RC-005. With this amendment being recommended for approval by Regional Council at its meeting on April 24, 2025, it allows Region staff appropriate time to ensure the 10-day public notice requirement is met prior to that meeting.

Analysis

Road Safety Plan Aims to Improve Safety on Regional Roads

The Road Safety Plan (Appendix 1) serves as the roadmap to reduce and eventually eliminate injuries and fatalities on Regional Roads. It aligns with the Vision Zero initiative, a global framework adopted by cities and regions to improve road safety.

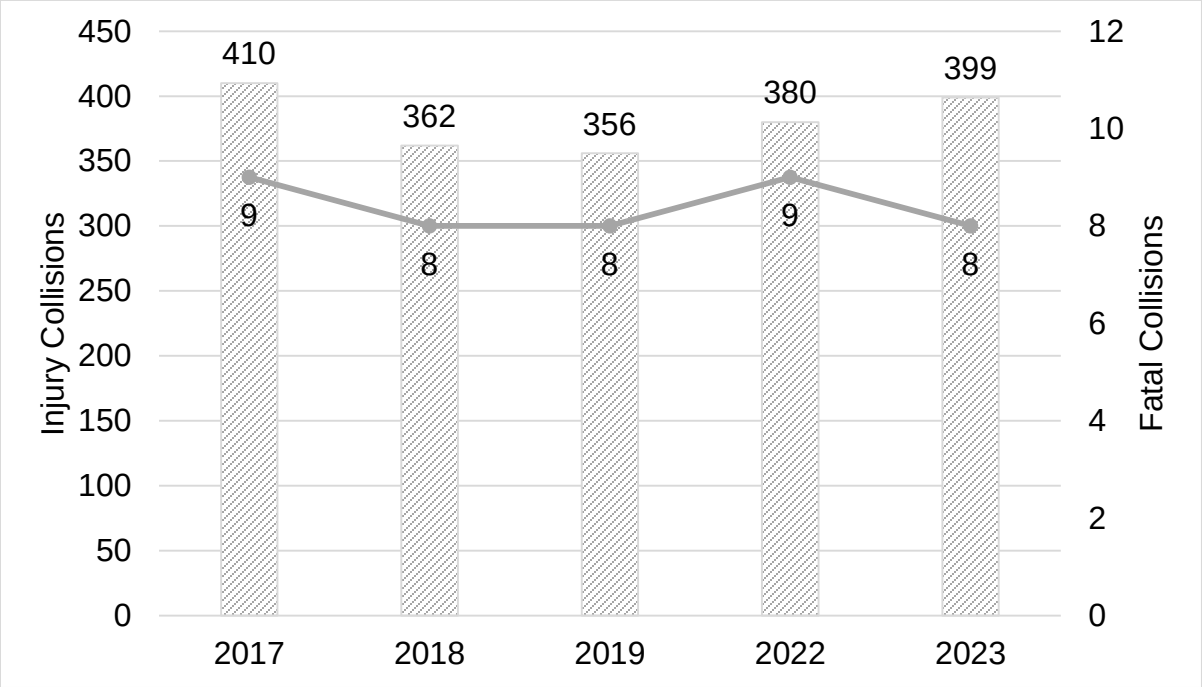
Recent Increase in Injury Collisions

Between eight and nine fatal collisions occur each year on Regional roads. Data indicates a recent increase in the number of injury collisions year over year.

Analysis of injury and fatal collision data identified key trends. After a decline from 2017 to 2019, injury collisions have increased in recent years, while fatal collisions have remained consistent (see Figure 1). The increase has been primarily driven by a rise in collisions involving intersections, distracted driving, and collisions occurring on rural roads.

This pattern, with a decrease in collisions in the late 2010s followed by an increase in the early 2020s, is consistent with trends observed in similar jurisdictions across Ontario.

Figure 1 – Regional Injury and Fatal Collisions (2017-2019, 2022-2023)



Collisions from 2020 and 2021 were not included due to impacts from the COVID-19 pandemic.

These trends underscore the need for a targeted road safety plan to reduce and eventually eliminate injuries and fatalities and enhance the safety of the regional road network.

Common Factors in Collisions

The Road Safety Plan identifies the most common factors involved in collisions in Niagara and outlines countermeasures to reduce their frequency and severity.

More than half of all serious collisions in Niagara are linked to one of two main factors:

- Intersections

  Includes locations with traffic signals, stop signs, as well as uncontrolled intersections. Most serious collisions at intersections are related to turning movements and angle collisions, with rear-end collisions being the second most common.

- Aggressive and Distracted Driving

  Includes behaviors such as failing to properly yield the right-of-way, excessive speeding, and tailgating.

Five additional factors contribute to the most common causes of collisions: Vulnerable Road Users, Young Drivers, Rural Roads, Commercial Vehicles, and Impaired Driving.

The Road Safety Plan identifies countermeasures across these seven areas to reduce collision frequency and severity. Examples include engineering solutions to improve road design, enhanced enforcement of traffic laws, and educational campaigns aimed at raising awareness and changing driver behavior.

Action Plan Recommends Countermeasures

A three-pronged data-driven action plan identifies high-collision locations and will recommend countermeasures (actions) to reduce collisions.

The action plan establishes a structured framework for prioritizing road safety countermeasures through three categories of projects. This data-driven approach ensures that road safety efforts are targeted, transparent, and focused on the highest-impact opportunities for improvement.

Action 1: Incorporate Road Safety in Capital Projects

- Planned road reconstruction projects are prioritized as they provide the best opportunities for meaningful safety improvements. Many of these projects are already located in Niagara's highest-collision areas.

- Road Safety Audits will be conducted for all major road reconstruction projects to incorporate safety best practices in project design. The audits are formal, independent peer reviews aimed at identifying recommended safety improvements.

Action 2: Directly Target High-Collision Areas

- A spatial analysis process, known as Network Screening, will identify locations with the greatest potential for safety improvements. In-Service Road Safety Reviews will be conducted beginning with five priority locations in 2025. Safety reviews evaluate current road safety performance, identify hazards, and recommend countermeasures.

- Recommendations from the previous year's safety reviews will be implemented annually.

Action 3: Network-Wide Countermeasure Programs

- Programs, such as speed display boards and other traffic calming measures, will be deployed based on quantitative criteria to prioritize the best locations for placement.

- A series of education campaigns will be developed to address each emphasis area.

Implementation Begins Spring 2025

Staff have developed an implementation plan for countermeasures using the framework outlined above. These planned actions are detailed in Appendix 2.

An inter-agency Road Safety Working Group will coordinate on the selection and implementation of countermeasures. This group includes key partners such as local municipalities, NRPS, Public Health, and Communications. It builds on the technical advisory committee consulted during the development of the Road Safety Plan.

Monitoring Progress

Progress will be monitored through key performance indicators (KPIs). The Road Safety Plan identifies two KPIs to measure progress in reducing serious collisions on the regional road network:

- Total Fatal and Injury Collisions per 100,000 Residents

- Total Collisions per 100,000 Residents

Where applicable, individual countermeasures will also be evaluated using performance measures specific to their implementation.

Alternatives Reviewed

Do not adopt the Road Safety Plan (Not Recommended).
This is not recommended as the Road Safety Plan outlines actions necessary to reduce the number of fatal and injury collisions on Regional roads.

Relationship to Council Strategic Priorities

The Vision Zero Road Safety initiative is an identified action under the 'Equitable Region' strategic focus area. The Equitable Region focus is to "provide opportunities for a safe and inclusive Niagara by listening and responding to our community needs and planning for future growth". The goal of the Road Safety Plan is to improve road safety, and protect the lives of all those that live, work and travel in Niagara.

_____

Prepared by:
Scott Fraser, P.Eng.
Associate Director, Transportation Planning
Transportation Services

_____

Recommended by:
Terry Ricketts, P.Eng.
Commissioner of Public Works
Public Works Department

_____

Submitted by:
Ron Tripp, P.Eng.
Chief Administrative Officer

This report was prepared in consultation with Peter Vujic, Manager Road Safety; Taimur Usman, Project Manager; Manny Rataul, Project Manager; reviewed by Nick Rosati, Associate Director Traffic, Graeme Guthrie, Associate Director Engineering; Frank Tassone, Director Transportation; Jackie Gervais, Health Promoter; Janet Rose, Communications; Jason Misner, Communications, Brian McMahon, Financial Specialist; Renee Muzzell, Manager Financial Support; Miranda Vink, Associate Director Court Services; and Donna Gibbs, Director Legal and Court Services.

Appendices

Appendix 1	Vision Zero Road Safety Strategic Plan
Appendix 2	Action Plan
Appendix 3	Other Pertinent Reports

Niagara Region

Road Safety Strategic Plan

MOVING ROADS FORWARD | VISION ZERO

Niagara Region

Welcome to the inaugural Niagara Region Road Safety Strategic Plan

"Regional Council strongly supports the Vision Zero initiative to reduce injuries and deaths on our regional roads. As Niagara's population continues to grow at an incredible rate, we must ensure that our road network can handle that growth while prioritizing safety for motorists, cyclists and pedestrians alike. The Vision Zero Road Safety Strategic Plan offers a comprehensive and data-informed plan that reinforces Council's commitment to building an Equitable Region that places safety and responsibility at the centre of everything we do."

Jim Bradley

Regional Chair, Niagara Region

"As a corporation, Niagara Region has worked, and continues to work, to provide a transportation network that is safe, efficient and responsive to the needs of all residents. The adoption and implementation of the Vision Zero Road Safety Strategic Plan is crucial to bringing to life the 'Equitable Region' Council Strategic Priority area. While ensuring the implementation of this plan moves forward, we will continue to pursue all strategies that will make our transportation network safe and reliable for Niagara residents."

Terry Ricketts

Commissioner of Public Works,
Niagara Region

"Public safety is a shared responsibility, and at the Niagara Regional Police Service, we believe in working together with our community to make our roads safer for everyone. As proud partners in Niagara Region's Vision Zero Road Safety Strategic Plan, we are committed to a community-first approach—engaging, educating, and enforcing in collaboration with residents and stakeholders. Through these efforts, we strive to reduce traffic-related injuries and fatalities, ensuring safe and responsible travel for all who call Niagara home and those who visit our region."

Bill Fordy

Chief of Police,
Niagara Regional Police Service

Table of Contents

Introduction 1

Road Safety in Niagara Today 3
Data indicates a recent increase in the number of injury collisions on Regional roads 3

Developing the Road Safety Plan 5
The Road Safety Plan follows a circular process 5
The Road Safety Plan is based on the global Vision Zero initiative 6
The Vision Statement is the foundation of the Road Safety Plan 6
Working together is necessary to achieve success 7

Emphasis Areas & Countermeasures 8
To build the Road Safety Plan, collision trends in Niagara Region were examined 9
The next step was to examine countermeasures 11

Action Plan 12
Taking action to improve road safety 13
Establishing the Road Safety Working Group 17

Monitoring and Improving 18
Setting the key performance indicators 19
Establishing regular reporting and updating the Road Safety Plan 19

Conclusion 20
The Road Safety Plan will be a living process, enabling road safety management and improvement 21

Appendix 22
Many countermeasures are available to implement the Road Safety Plan 23

Introduction

Niagara Regional Headquarters at Sir Isaac Brock Way and Schmon Parkway

Introduction

Supporting Niagara's roads to move forward

Niagara Region, part of Ontario's Greater Golden Horseshoe, has experienced rapid growth in recent years. Known for its tourist attractions, stunning scenery, world-class wineries, and vibrant hospitality industry, it is a place to live, study, work, and enjoy life.

The region encompasses both dense urban centers and rural areas, creating diverse transportation needs and challenges. The Niagara Regional road network links these communities through over 1,700 lane-kilometres of roadway. In recent years, rapid population growth and increased travel to, from, and within Niagara have placed greater demands on the Regional road network. These changes have led to higher traffic volumes and more complex travel patterns, emphasizing the need for a coordinated plan to address road safety and reduce collisions.

Each year, Niagara experiences between 350 and 400 injuries and 8-9 fatalities on roadways under the jurisdiction of Niagara Region. Niagara Region needs a plan.

The Road Safety Strategic Plan (the Road Safety Plan) is Niagara Region's roadmap to address this challenge and improve the safety of the regional road network. It is aligned with the worldwide Vision Zero initiative—which sets the ambitious goal of eliminating serious injuries and fatalities.

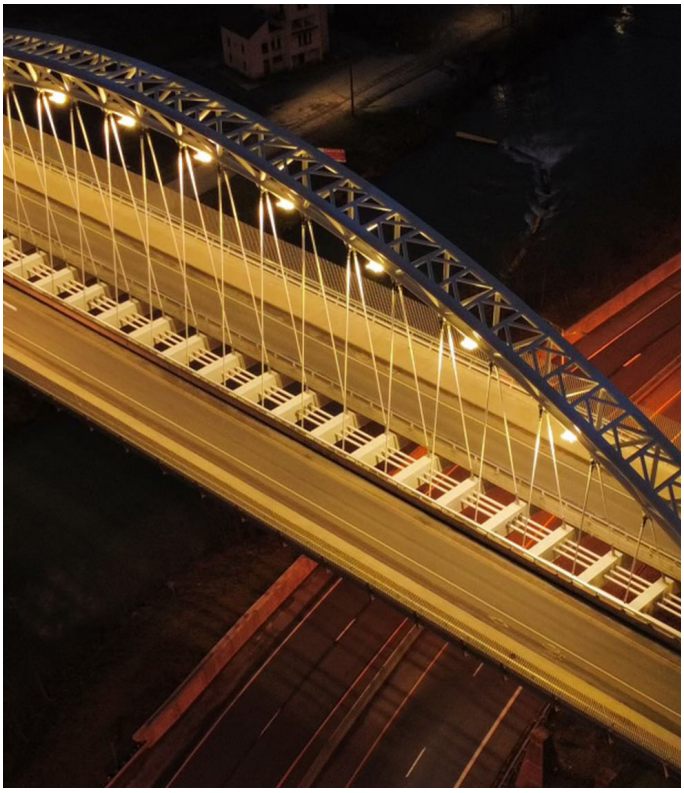
The purpose of the Plan is to:

- Analyze where and why serious collisions are happening on the Regional Road network today.
- Identify the engineering, enforcement, and education tools to combat these trends.
- Establish a clear framework for prioritizing available resources and actions to reduce collisions.
- Outline the methods for tracking and monitoring progress.

This strategy has been developed in collaboration with key partners, including Niagara Regional Police, Public Health, and local area municipalities.

There is a common responsibility to improve road safety and protect the lives of all those who live, work, and travel in Niagara.

Developing the Road Safety Strategic Plan starts with taking a data-driven approach. By looking at what types of collisions occur more frequently on the roads, there is a better focus on where available resources should be directed.



Burgoyne Bridge at Night, St. Catharines

Road Safety in Niagara Today

Data indicates a recent increase in the number of injury collisions on Regional roads

Collisions that occurred on regional roads between 2017 to 2019 and 2022 to 2023 were analyzed to identify trends related to road safety. Collisions that occurred in 2020 and 2021 were not included due to the impacts of the COVID-19 pandemic, which significantly impacted trip-making patterns in the region. The focus is on injury and fatal collisions because this will have the greatest impact on improving road safety.

During the analysis period, 1,907 injury collisions and 42 fatal collisions were recorded. The total number of fatal and injury collisions by year is shown in Figure 1. This analysis was based on traffic collision information for Regional roads as obtained from the Ministry of Transportation Ontario.

The number of injury collisions decreased between 2017 to 2019 but increased again after the COVID-19 pandemic to numbers close to 2017. This increase is consistent with observations across various similar jurisdictions in Ontario. Even considering the fact that the number of residents in the region has been increasing, the rate of fatal and injury collisions per 100,000 residents closely resembles trends in Figure 1.

A map of Niagara region showing the locations of injury and fatal collisions on regional roads is provided in Figure 2. The map illustrates that collisions are more frequent in areas with higher traffic volumes such as urban arterial roads.

After a decline from 2017 to 2019, injury collisions on Regional roads have increased in recent years, while fatal collisions have remained consistent. Niagara needs a focused road safety strategy to reverse this trend and improve the safety on the regional road network.

Figure 1. Frequency of Fatal and Injury Collisions for 2017 to 2019, 2022 and 2023

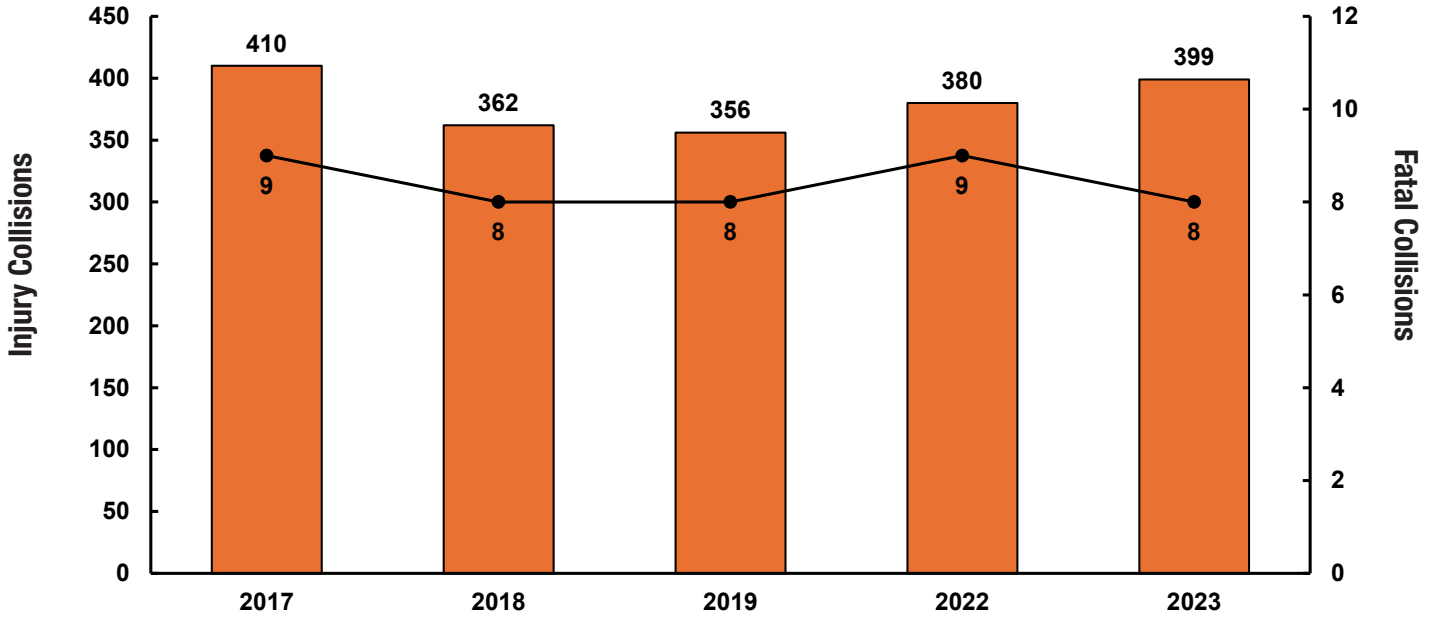
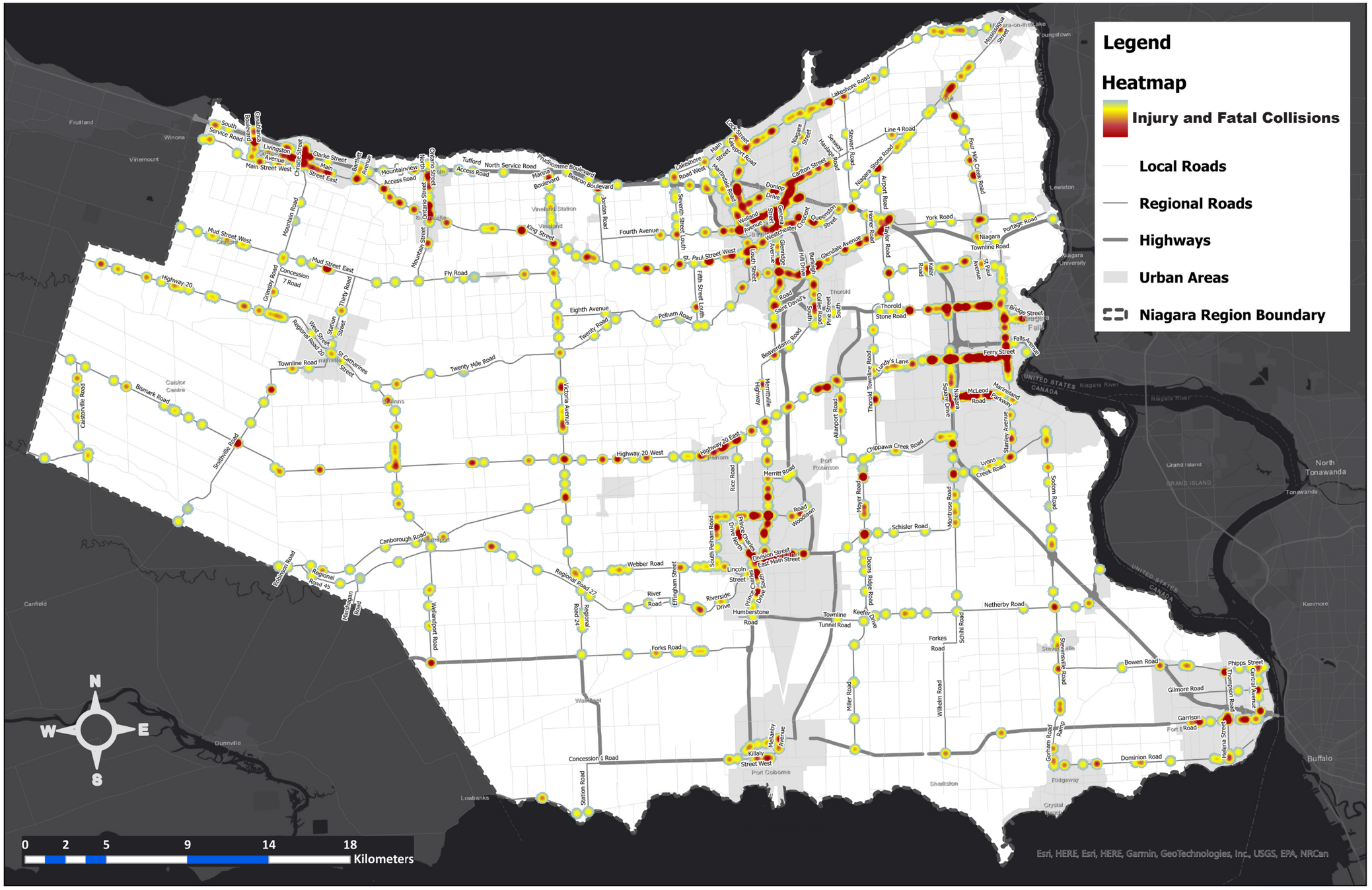


Figure 2. Heat Map of Fatal and Injury Collisions on Regional Roads in Niagara Region for 2017 to 2019, 2022 and 2023



Developing the Road Safety Plan

The Road Safety Plan follows a circular process

The Road Safety Plan is developed using a data-driven framework. By analyzing collision data and identifying key trends, efforts are focused on addressing the most frequent causes and locations of collisions. This approach ensures that future actions will have the greatest impact on reducing serious collisions.

The following three sections detail each step of this process, from identifying high-risk areas to implementing targeted solutions. This structured approach ensures accountability and enables Niagara Region's roads to become safer in a systematic and measurable way.

Examine Collision Trends, Identify Emphasis Areas and Countermeasures

The process begins with an analysis of collision data to identify where and what types of collisions are occurring on Regional roads. This information is used to develop categories of collisions to be addressed, referred to as Emphasis Areas. Next, the available actions and tools that can address each Emphasis Area are identified. These solutions, known as countermeasures, may include engineering, enforcement, and education strategies.

Take Action

Once focus areas and available tools are determined, action is taken to improve safety. This is done as part of planned road reconstruction and at identified problem locations.

Monitor and Improve

Trends are monitored to assess the effectiveness of implemented countermeasures and to ensure progress toward the goal of eliminating serious collisions. The Road Safety Strategic Plan is regularly updated to reflect current collision trends

Improving road safety is an ongoing process. Current trends are examined, actions are taken, and reevaluation is conducted using updated collision data. This cycle continues until all serious collisions are eliminated from the region's road network.

Niagara Stone Road (RR 55) at Concession Road 6

The Road Safety Plan is based on the global Vision Zero initiative

The Road Safety Plan aligns with the global Vision Zero initiative, founded in Sweden in 1997, with the belief that no loss of life resulting from traffic collisions is acceptable. Vision Zero aims to eliminate all traffic-related deaths and serious injuries by prioritizing safe and accessible roadways for all users. At its core, Vision Zero recognizes that while human errors are inevitable, the road system can and should be designed to prevent those errors from resulting in severe consequences.

The Vision Zero approach shifts the responsibility for road safety from each individual road user to the entire transportation system, emphasizing that road design, traffic regulations, and community planning can work together to contribute to a safer environment.

Vision Zero's proactive and systemic approach ensures that safety is considered at every stage, drawing on measures related to engineering, enforcement, and education, making it a transformative approach to reducing collisions and enhancing quality of life in communities worldwide.

The Vision Statement is the foundation of the Road Safety Plan

The vision statement provides a foundation for achieving the best possible results. It summarizes the main objective of the Road Safety Plan, highlighting a significant yet achievable goal. The vision statement was developed collaboratively with interested parties.

Niagara Region's Vision Statement

Niagara region is a community that values healthy and safe mobility for all residents and visitors, regardless of how they move.

Niagara is committed to working together to achieve Vision Zero, the elimination of fatalities and serious injuries on roadways.

Roundabout: York Road (RR 81) at Glendale Avenue (RR 89)

Working together is necessary to achieve success

The Road Safety Plan was developed collaboratively with many interested parties from across Niagara through a technical advisory committee.

The committee was comprised of staff from the Region and its twelve area municipalities as well as representatives from public education, enforcement, the Ministry of Transportation, and participants from community engagement and advocacy groups.

All interested parties provided input into the Road Safety Plan during multiple touchpoints across the project including the development of the vision, the Emphasis Areas, and the action plan.

Road user safety is a shared responsibility, and the success of the Road Safety Plan relies on the commitment and involvement of the partners and interested parties. The technical advisory committee will evolve into a road safety working group, as detailed in the Action Plan section.

In Niagara region there is:

An injury collision every 23 hours.

A fatal collision every 44 days.

A pedestrian fatal or injury collision every 11 days.

A cyclist fatal or injury collision every 17 days.

Figure 3. Interested Parties Participating in the Road Safety Plan Development

Niagara Region

Fort Erie

Grimsby

Lincoln

Niagara Falls

Niagara-on-the-Lake

Pelham

Port Colborne

St. Catharines

Thorold

Wainfleet

Welland

West Lincoln

District School Board of Niagara

Niagara Catholic District School Board

Niagara Regional Police Service

Ontario Provincial Police

Ontario Ministry of Transportation

Emphasis Areas & Countermeasures

Dominion Road Roundabout, Fort Erie

To build the Road Safety Plan, collision trends in Niagara Region were examined

In Niagara, fatal and injury collisions most frequently:

- Happen at Intersections, or
- Involve Agressive & Distracted Driving as contributing factors.

Dedicating resources to these factors can help achieve road safety improvements.

The Road Safety Plan is based on statistical information from the collisions occurring on Regional roadways. Analysis of factors contributing to collisions on Regional Roads between 2017 and 2019, as well as in 2022 and 2023, identified seven key trends. Common actions were grouped for trends such as cyclist and pedestrian collisions, categorized as vulnerable road users.

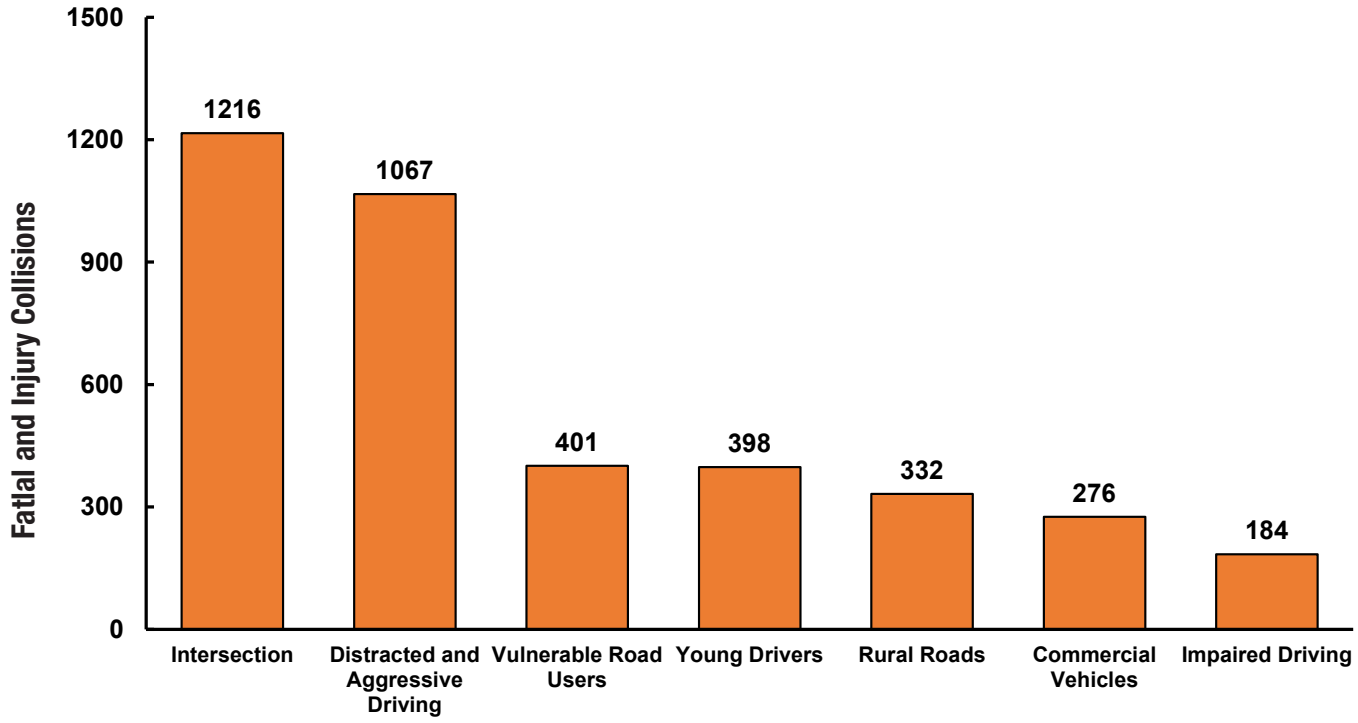
Through these analyses, in collaboration with the technical committee, seven Emphasis Areas were identified, focusing on the largest groups of fatal or injury collisions.

Figure 4 shows the frequency of fatal and injury collisions for the years of 2017 to 2019, 2022, and 2023, for each of the Emphasis Areas.

A single collision may involve multiple emphasis areas; hence, there are overlaps among emphasis area totals. For example, if a pedestrian was involved in a collision with a vehicle whose driver was distracted at an intersection, this one collision is represented and counted in three Emphasis Areas: vulnerable road users, distracted and aggressive driving, and intersections.

The next section explains each Emphasis Area more fully and elaborates on how each one contributes to the fatal and injury collision trends seen across Niagara's regional road network.

Figure 4. Fatal and Injury Collisions Trends for 2017 to 2019, 2022 and 2023



Intersections

Spatial analysis shows that most collisions occur at intersections. Intersections are complex environments that involve numerous road user decisions and vehicle movements. Road users interact with signals, signage, pavement markings, lane configurations, to name a few.

In Niagara, a majority of injury collisions occur at signalized intersections with angle collisions being the predominant type, followed closely by rear-end collisions. This is consistent with similar municipalities in Ontario.

Distracted and aggressive driving

Distracted and aggressive driving contribute to a significant number of collisions in Niagara. Distraction reduces drivers' ability to react to road and traffic conditions and excessive speed contributes to loss of control and increased collision severity.

In Niagara's fatal and injury collisions related to aggressive and distracted driving, most drivers failed to yield the right-of-way, were following too close, or disobeyed traffic control.

Vulnerable road users

Niagara, like other municipalities, encourages residents and visitors to engage in active transportation such as walking and cycling. The increase of 'vulnerable road users' have resulted in some unfortunate injury statistics across almost all jurisdictions. About a third of Niagara's residents do not drive or have access to an automobile. Protecting our vulnerable road users should be a priority.

Young and new drivers

Drivers with less experience with road networks and with operating motor vehicles are more likely to be involved in collisions. These collisions have the added societal cost of more years of lost life and lost or unrealized potential. In Niagara, one-fifth of all injury and fatal collisions involved an at-fault driver who was 25 years old or younger.

Rural roads

Another emphasis area is Niagara's large geographical area and high concentration of rural roads. Agriculture, viticulture, and related industries are important to Niagara's economy and the associated rural roads bring their own unique challenges.

Collisions on rural roads tend to involve higher operating speeds, curves, and nighttime driving. Road safety principles best applied to rural roads are different from urban roads and deserve their own focus.

Commercial vehicles

Related to industry and Niagara's economy is the increase in commercial vehicles. As the population has increased, so too have the demands for goods. Most goods are transported by large commercial vehicles which have specific operational challenges that must be considered in road design, planning, and construction.

Most collisions involving commercial vehicles occur at intersections, where the driver has lost control or has failed to yield the right-of-way.

Impaired driving

Lastly, although societal pressures and enforcement have improved the overall picture, driver impairment continues to be a contributing factor in traffic collisions. The most typical type of impairment is due to alcohol consumption but can also involve drug use and extreme fatigue.

The next step was to examine countermeasures

Across the Emphasis Areas, the Road Safety Plan identifies specific countermeasures to reduce collision frequency and severity. A countermeasure is an action taken to reduce the frequency or severity of motor vehicle collisions. Several countermeasures are identified to address the safety concerns for each emphasis area. Countermeasures were selected using a collaborative approach with interested parties focusing on industry experience, effectiveness, and the ability to deliver and implement the countermeasures. There are three main categories of countermeasures: engineering, enforcement, and education/empathy:

Engineering

Engineering countermeasures involve changes to the physical geometry of the roadway, traffic control and warning devices, and pavement markings and may require road construction projects. Engineering-related countermeasures may also involve regulatory changes such as to the Ontario Highway Traffic Act. Engineering is the most effective type of countermeasure.

Enforcement

Enforcement countermeasures focus on the rules of the road. They typically involve law enforcement agencies and are intended to improve compliance with roadway regulations and encourage desirable road user behaviour.

Education and Empathy

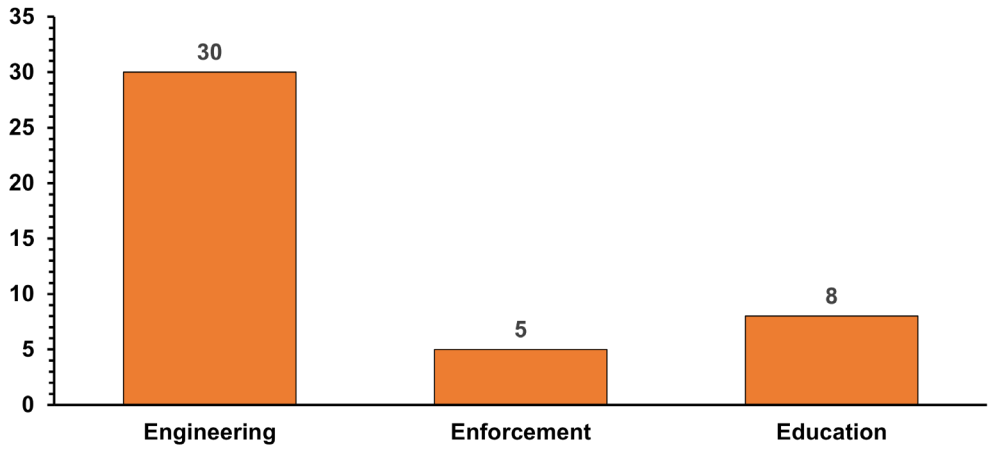
These countermeasures involve a better understanding and enhancement of road user knowledge and behaviour. The goal is to improve road users' awareness of their surroundings and ability to make safer decisions. Developing the Road Safety Plan required the combination of all three types of countermeasures for a multi-faceted and effective approach to improving road safety in Niagara region.

The Road Safety Plan includes forty-three (43) countermeasures

Figure 5 is a tally of the Plan's countermeasures in each category. The 'Appendix: Countermeasures' section at the end of this document provides a description of each of the countermeasures. Every road safety project has a unique set of characteristics and challenges. How the appropriate countermeasures are selected for each location is discussed further in the 'Action Plan' section.

The countermeasures in the Road Safety Plan are the tools that will be used to improve road safety for each situation. Some countermeasures, such as red-light cameras or automated speed enforcement, may constitute a program that is applied across multiple areas or locations in the region. Other countermeasures, such as right- or left-turn calming or intersection illumination, are more location-specific since they may be appropriate for some road network locations and not for others.

Figure 5. Number of Countermeasures in the Road Safety Plan, by Category



Action Plan

Intersection Reconstruction RR 20 at RR 14

Taking action to improve road safety

Having understood where and why collisions are occurring and what measures can be used to address them, the next step in the Road Safety Plan is to establish a clear framework for prioritizing available resources and acting on the information learned from the previous steps.

While road safety has always been a consideration as part of capital projects, the Road Safety Plan will formalize and support this continued effort. The Road Safety Plan will also work to directly address specific high-collision areas and trends and implement network-wide countermeasure programs. This three-pronged approach ensures that actions are taken holistically and in parallel, not in isolation.

The three approaches and how they work together are described in the following sections.

1. Incorporate Road Safety in Capital Projects

- Planned road reconstruction projects offer the best opportunity to make meaningful improvements and implement countermeasures.
- Countermeasures can often be incorporated during the development and design stages, at minimal additional cost to the project, representing the best use of available funding.
- Many capital projects are already planned for the locations known to have high collision frequency.
- Moving forward, road safety will be formally incorporated into projects through completion of road safety audits. A road safety audit is a formal, independent assessment of a project to identify potential safety issues and recommend project improvements during the design phase.

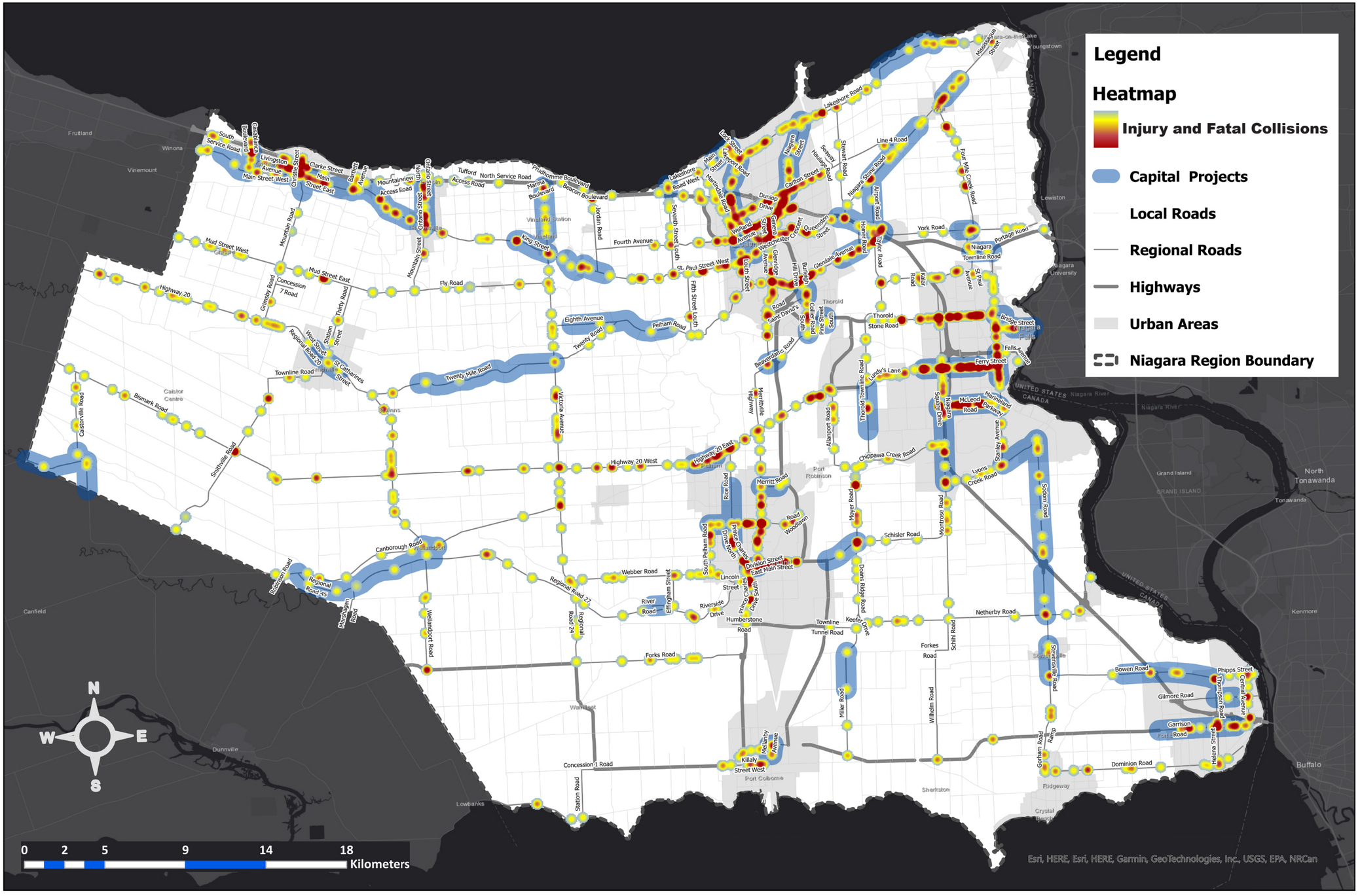
Figure 6 is an example of a recent capital project that incorporated road safety. Figure 7 reflects the collision priority location information from Figure 2, along with planned capital road improvement projects layered on top.

Figure 6. RR 20 – Lundy's Lane, Montrose Road to Highland Avenue - Ongoing Environmental Assessment

A Road Safety Audit was completed as a component of the ongoing environmental assessment from Montrose to Highland. The environmental assessment will incorporate countermeasures such as new pedestrian signals, removal of right-turn channels, and reduction of curb-radii throughout the corridor.

Lundy's Lane, Niagara Falls

Figure 7. Fatal and Injury Collisions on Regional Roads in Niagara Region and Locations of Capital Projects



2. Directly Target High-Collision Areas

- From data analysis that has been completed, there are locations in Niagara known to be priority locations for traffic collisions. These locations will be evaluated and addressed in a formalized and systematic manner.

- Five (5) in-service road safety reviews will be completed annually, targeting these high-priority locations. A safety review evaluates a road's current safety performance, identifying existing or potential hazards and recommending countermeasures.

- Each year, recommendations from the previous year's safety reviews will be implemented while a new set of reviews will be conducted for the next set of priority locations.

- Network screening can identify locations with potential for safety improvement. This process analyzes collision data and risk factors to identify locations with higher-than-expected collisions. This helps with proactive road safety planning.

An example of a recent in-service road safety review is provided in Figure 8. Figure 9 has the priority location information from Figure 2, along with the ongoing 2024 safety reviews and those planned for 2025 and 2026, illustrating the alignment of safety reviews with the areas of concern.

3. Network-Wide Countermeasure Programs

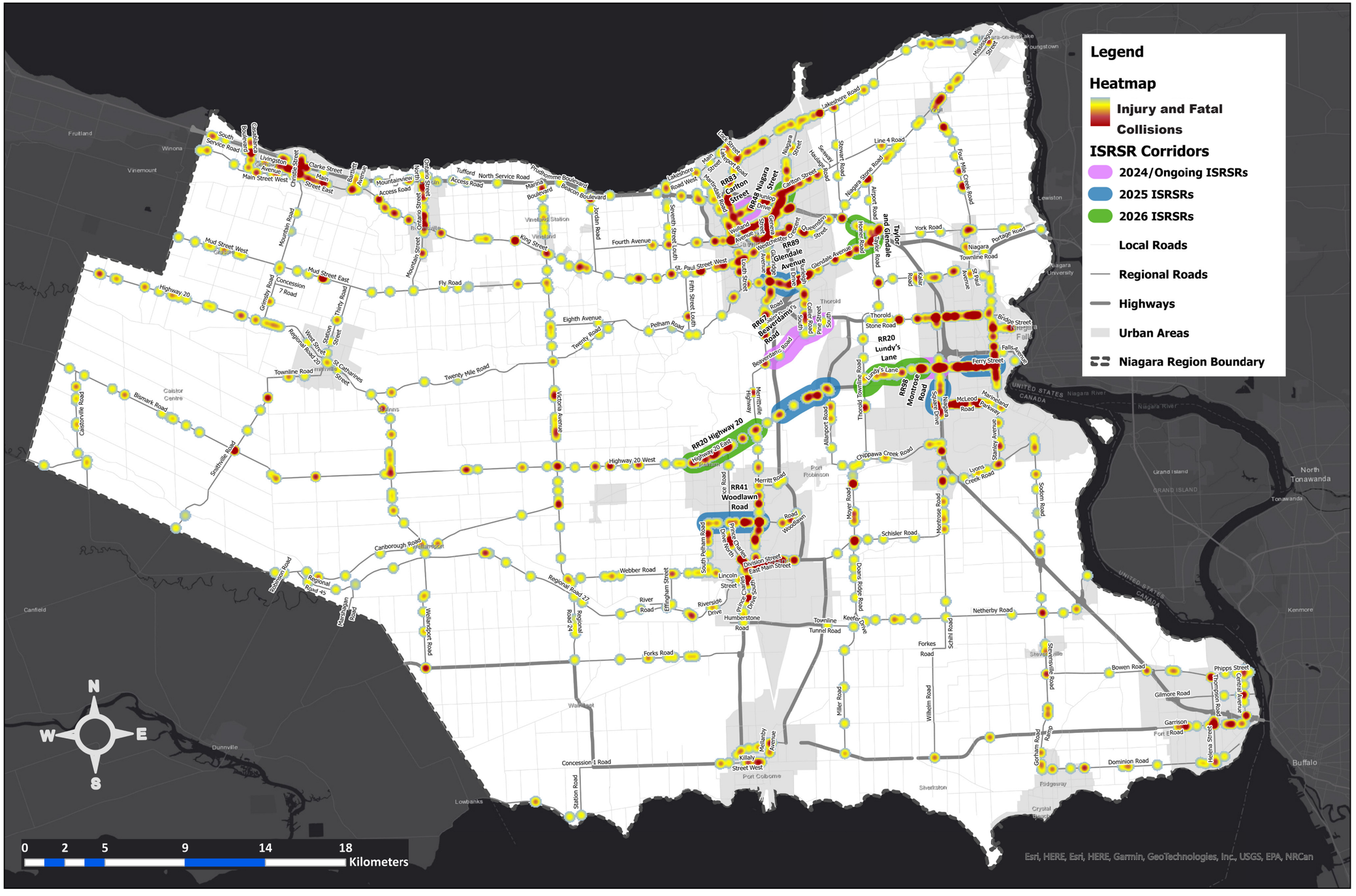
- Network screening or other quantitative criteria will be used to determine locations for network-wide actions. For example, establishing Community Safety Zones uses a warrant process that examines factors such as collision history, speed of vehicles, land use, and the road environment. Additional examples include the speed limit policy and school zone review, expansion of speed display boards, expansion of centerline bollards, and education campaigns.

Figure 8. RR 83 - Carlton Street, Ontario Street to Lake Street - In-Service Road Safety Review

Initiated in response to a collision with a crossing guard, the results of this safety review will relocate the school crossing to the west and south legs of intersection, restrict on-street parking near intersections to improve visibility, implement three new pedestrian crossovers, and reduce lane widths to 3.5 metres.

Carlton Street, St. Catharines

Figure 9. Fatal and Injury Collisions on Regional Roads in Niagara Region and Locations for ISRSRs for 2024, 2025, and 2026



Establishing the Road Safety Working Group

A Road Safety Working Group is a common feature of successful road safety plans. An inter-agency Road Safety Working Group will coordinate efforts related to the selection and implementation of countermeasures.

This group will merge a number of existing committees that to-date have guided the development of the Road Safety Plan, the implementation of automated enforcement, and traffic operations. The working group will include staff from the Region, area municipalities, and key partner agencies such as NRPS, Public Health, and Region communications.

Intersection Reconstruction Ontario Street (RR 42)

Monitoring and Improving

Bridge Street (RR 43) at Victoria Avenue

Setting the key performance indicators

A set of key performance indicators ('indicators') should be developed to allow Region staff to measure the magnitude of road user safety issues, assessing risk, and assessing the effectiveness of road safety programs. Indicators related to collision rates are recommended as they are readily available for Region staff to extract and analyze.

To align with Vision Zero's goals and objectives, they should be based primarily on fatal and injury collisions. While Vision Zero plans in other jurisdictions generally focus on fatal and serious injury collisions, fatal and injury collisions provide a greater number of data points for analysis and may allow Region staff to better identify emerging trends in safety performance.

In addition, Region staff are not currently able to process fatal and seriously injured collisions because that requires extracting a data field from collision reports that are not readily available.

The following indicators will be included as part of the monitoring plan:

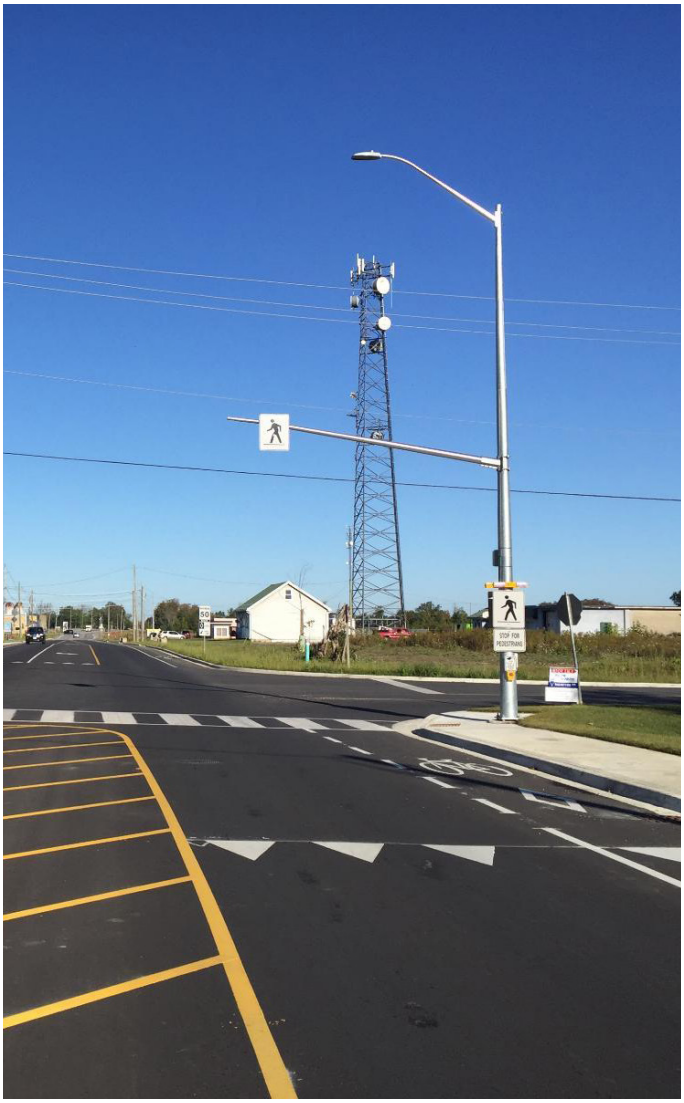
Indicator	Starting Point	Goal
Total Fatal and Injury Collisions per 100,000 Residents (5 Year Average)	82.8	Ongoing reduction in the number of serious collisions for the regional network as a whole.
Total Collisions per 100,000 Residents (5 Year Average)	623	

Where applicable, individual countermeasures will be tracked with indicators more specific to their respective emphasis area. In addition, the number of countermeasures implemented per year will be tracked to quantify the results of the road safety funding.

Establishing regular reporting and updating the Road Safety Plan

An updated road safety report will be developed annually which will include data on collisions and trends and comparisons to previous years. Collision trends will be analyzed as they relate to the investments in actions and improvements to road safety.

The annual report will track completed, in progress, and planned countermeasures. The indicators will also be updated and measured against the previous report.



Pedestrian crossover at RR 20 at South Grimsby Road 5

Conclusion

Sir Isaac Brock Way and Schmon Parkway/John Mcdonnell Street

The Road Safety Plan will be a living process, enabling road safety management and improvement

Niagara region is home to nearly half-a-million residents and welcomes nearly 14 million visitors each year. The Region and its local area municipalities work to maintain and enhance the road network and to support mobility for those who live, work, study, and play in this beautiful area of Ontario.

Collisions on the regional road network impact many people and have both direct and indirect costs. Those involved in collisions are directly affected by property damage, and injuries that are sometimes fatal or life-altering. Collisions where someone is fatally or seriously injured affect the person's friends, family, and colleagues, not to mention the societal costs of hospitalization, rehabilitation, and on-going care. All residents are indirectly impacted by collisions that cause traffic delays and result in higher insurance premiums.

In Niagara region, collisions of all types are either holding steady or trending upwards. It is imperative that the Region, local municipalities, interested parties, and community partners work together to address these trends.

The Road Safety Strategic Plan, consistent with the concept of Vision Zero, provides a method and framework for this important endeavour. Under Vision Zero, all road users, and the authorities who design, engineer, construct, and maintain the roads, share responsibility for reducing fatal and injury collisions.

Niagara's Road Safety Strategic Plan is evidence-based and analyzes the locations and causes of traffic collisions over the past five years. The technical advisory committee examined this data analysis and selected seven specific emphasis areas that will be the focus of the Road Safety Plan. A list of countermeasure tools that can be tailored to address trouble areas was also developed.

An inter-agency Road Safety Working Group will coordinate efforts related to the selection and implementation of countermeasures. An Annual Collision Report will be undertaken each year, providing updates on traffic collision data and trends, and progress reports on the actions being undertaken to improve road safety in Niagara under this strategy.

Pedestrian Crossover - King Street (RR 81) at William Street

Appendix

RR 20 and Dennis Drive, West Lincoln

Many countermeasures are available to implement the Road Safety Plan

Intersections

Red Light Cameras
Red light cameras detect and capture images of vehicles entering an intersection when the traffic signal is red. They help reduce severe collision types such as angle and head-on collisions at signalized intersections.

Leading Pedestrian Intervals
Leading pedestrian intervals change traffic signal timing to let pedestrians start crossing before vehicles get a green light. This allows drivers to see pedestrians more easily and reduces pedestrian-vehicle collisions.

Ladder Crosswalks
Ladder crosswalks are used to improve visibility at intersections and pedestrian crossovers. They specifically address the challenge of low pedestrian visibility at crossings.

Sightline Reviews
Sightline reviews are conducted at intersections and other accesses. This ensures that drivers have unobstructed views and can see approaching drivers, cyclists, and pedestrians.

Right Turn Calming
Measures that reduce speeds of right-turning vehicles to decrease conflicts and improve safety. Measures include curb extensions, reduction of curb-radii, and right-turn channel removal or conversion.

Left Turn Calming
Measures that reduce speeds of left-turning vehicles to decrease conflicts and improve safety. Measures include dedicated left-turn phasing, intersection guidelines, opposing left-turn lane offsetting, and geometric realignment to slow vehicle speeds.

Accessibility Measures
Implementation of accessibility measures at intersections to increase accessibility for pedestrians as part of reconstruction projects. Measures include accessible pedestrian signals, tactile walking surface indicators, and curb ramp realignment.

Turn Restrictions
Turn restrictions are implemented at specific locations based on collision history and safety needs.

Intersection Illumination
Review lighting levels at intersections to improve visibility and reduce the potential for nighttime collisions.

Aggressive and Distracted Driving

Speed Display Boards
Speed display boards are used to encourage drivers to slow down by providing feedback when they exceed speed limits.

Automated Speed Enforcement
Automated speed enforcement is an automated system that uses a camera and a speed measurement device to help enforce posted speed limits in community safety zones. Automated speed enforcement complements police activities by enforcing safer speeds.

Distracted Driving Education Campaign
An education campaign will be developed to address distracted and aggressive driving. This campaign will incorporate existing efforts by Transportation, Niagara Regional Police Service, Public Health, and others.

Traffic Calming
Develop a traffic calming guideline that outlines appropriate measures for regional roads, such as centerline bollards, horizontal bump-outs, and enhanced pavement markings.

Strategic Enforcement Based on Crashes and Infractions
Niagara Regional Police Service will continue targeted enforcement of traffic violations such as speeding and aggressive driving.

Vulnerable Road Users

Longer Crossing Times
Extended pedestrian crossing times will be implemented at locations to better accommodate younger, older, and disabled pedestrians.

Motorcycle Safety Education Campaign
Public education materials will be developed to promote safe sharing of the roads with motorcycle riders.

Community Safety Zones
Community safety zones highlight areas of the road network where safety is a particular concern due to the presence of vulnerable road users, such as children or older adults.

Speed Limit Policy and School Zone Review
The region's speed limit policy and school zones will be reviewed and updated to enhance road safety and align with best practices from peer municipalities. Updates could include preferred treatments for signage, pavement markings, pedestrian crossovers, and crossing guards, standardized across the region..

Pedestrian Crossovers
Pedestrian crossovers and mid-block pedestrian signals will be used to provide protected crossing locations between intersections.

Active Transportation Master Plan
As part of the Transportation Master Plan update, a dedicated Active Transportation Master Plan will be created to guide the development of active transportation infrastructure. The Active Transportation Master Plan will analyze demand patterns, existing and planned infrastructure, and opportunities to coordinate with planned capital projects.

Enhanced Cycling Pavement Markings
Implement additional green pavement markings for on-road cycling facilities in key locations and conflict areas

Young Drivers

Road Safety Curricula
Develop education/training modules targeted at reducing driver misbehavior (e.g. excessive speeding and aggressive driving, distracted driving, and impaired driving) and pilot these modules with young drivers in Niagara region high schools.

"Safety City" Facility
The "Niagara Safety Village" facility continues to provide school-aged children with a real-life, interactive environment to learn road safety. This initiative focuses on teaching safe driving, walking, and cycling practices.

Young Driver Education Campaigns
An education campaign will be developed to address the fact that young drivers are overrepresented in serious collisions. The campaign will aim to promote safer driving habits among this demographic.

Rural Roads

Clear Zones, Unrecoverable Slopes, and Guardrail Reviews
Review current clear-zone policy to reflect recommendations for removal of hazards, mitigation of unrecoverable slopes, installation of guardrails, or other measures related to the clear zone.

Median Enhancement
Develop a program to prioritize and review roadway medians and propose measures to reduce crossover collisions. Measures could consist of buffering, pavement markings, centreline rumble strips, and raised medians.

Curve Warning Reviews
Reduce the likelihood of roadway departures through a review of advanced curve warning signage on regional roads. This review will ensure that required and appropriate signage is in place on all major curves on the region's road network.

Shoulder Rumble Strips
Rumble strips provide physical feedback to a driver when departing a lane providing an opportunity for them to recover before fully leaving the paved road surface. Identify locations that would benefit from the implementation of shoulder rumble strips in reducing run off road collisions.

Shoulder Drop-off Maintenance
Significant drop-offs between the paved surface of the road and the shoulder can make it more difficult for vehicles to recover and avoid collisions. Continue the annual review of shoulder drop off distances on rural roads, ensuring compliance with minimum maintenance standards.

Roadway Illumination
Undertake review of lighting levels at rural road intersections to improve visibility and reduce the potential for nighttime collisions.

Pavement Markings
Reduce the likelihood of roadway departures through a review of line painting and other pavement markings on regional roads. Develop application and implementation guidelines for pavement markings in rural settings.

Farm Vehicle Safety Education Campaign
Develop an education campaign focused on farm vehicles on regional roads including education of other drivers on key considerations when near slow-moving vehicles. Review current design standards to consider farm-vehicle accommodation. Include farm vehicle operations as part of in-service safety reviews, where applicable.

Commercial Vehicles

Enhanced Truck Route Guidance
Opportunities will be evaluated to improve truck route signage, encouraging trucks to follow preferred routes.

Truck Regulation and By-Pass Enforcement
Work with the Town of Lincoln and the Ontario Ministry of Transportation to support the use of video surveillance to monitor trucks re-routing onto regional roads illegally.

Truck Aprons
Identify locations to install truck aprons which could include intersection corners, channelized right-turn lanes, and roundabouts.

Commercial Vehicle Safety Education Campaign
Develop a safety campaign related to heavy trucks, including safe industry practices (e.g., routing, vehicle safety, etc.) and public outreach on how to share the road with heavy trucks.

Impaired Driving

Support Reduce Impaired Driving Everywhere Program ('RIDE')
The RIDE program plays a crucial role in reducing drinking and driving offenses. Niagara Regional Police Service sets up checkpoints and stops vehicles to check for impaired drivers as part of this initiative.

Impaired Driving Educational Campaigns
Partner with Niagara Regional Police Service to deliver messaging and public education related to impaired driving.

Safety Programs

Annual Collision Report

Review collision data each year and compare with previous years to identify and monitor trends. Analyze road safety performance to determine if improved performance correlates with actions taken, and if action plan changes are warranted. Deliver report to regional leadership.

Road Safety Working Group

Establish an inter-agency Road Safety Working Group that will coordinate the selection and implementation of countermeasures.

In-Service Safety Review Program

Conduct in-service safety reviews on an annual basis, with locations identified through annual network screening.

Network Screening

On a three-year cycle, examine collision trends and patterns to identify locations with higher-than-expected collision frequencies. This will assist with selection of locations for future safety studies and initiatives.

Road Safety Audits

Leverage planned road reconstruction projects to incorporate road safety countermeasures through the completion of road safety audits.

Welland Canal Bridge 13, Welland

Action Plan - Vision Zero Road Safety Strategic Plan

Category 1: Incorporate Road Safety in Capital Projects

Road safety audits (safety audits) are a formal and independent assessment of a planned or newly constructed capital project to identify potential safety issues and recommend improvements. The benefit of a safety audit is to identify potential safety hazards and opportunities for improvement before they result in future collisions.

The following projects will be subject to a safety audit in 2025:

Table 1 - Safety Audit Program

2025 Safety Audits
RR20 Lundy's Lane Starting at Montrose Road and ending at Highland Avenue
RR42 Ontario Street Starting at Linwell Road and ending at Welland Avenue
RR48 Niagara Street Starting at Carlton Street and ending at Scott Street
RR72 Louth Street Starting at St. Paul Avenue and ending at Crestcombe Road
RR81 King Street Starting at Nineteenth Street and ending at Twenty-Third Street
RR81 Main Street Starting at West Niagara Secondary School and ending at Park Road North

The 2026 Road Safety Audit program will be determined later in 2025 based on project progress and timelines for completion of design work.

Category 2: Directly Target High-Collision Areas

An in-service road safety review (safety review) is an assessment of an existing road to identify safety concerns and recommend countermeasures to reduce collisions and improve road user safety. Unlike a safety audit, which are conducted on planned or newly constructed roads, a safety review examines roads that are already in use.

Table 2 provides an overview of safety reviews that are in-progress or will be initiated in 2025 and 2026. Locations for safety reviews are based on network screening (potential for safety improvement factors).

Implementation of recommendations from safety reviews will take place the following year, subject to budget approvals. 2026 planned safety reviews are tentative and subject to change as annual collision data is reviewed.

Table 2 - Safety Review Program

2024 / In-Progress Safety Reviews (2025 Implementation)	2025 Safety Reviews (2026 Implementation)	2026 Safety Reviews (2027 Implementation)
RR20 Lundy's Lane Starting at Kalar Road and ending at Montrose Road	**RR20 Lundy's Lane** Starting at Stanley Avenue and ending at Highland Avenue	**RR20 Lundy's Lane** Starting at Kalar Road and ending at Thorold Townline Road
RR77 Welland Avenue Lake Street/James Street Intersection	**RR20 Highway 20** Starting at Highway 58 and ending at Kottmeier Road	**RR20 Highway 20** Starting at Haist Street and ending at Merrittville Highway
RR83 Carlton Street Starting at Ontario Street and ending at Lake Street	**RR41 Woodlawn Road** Starting at Niagara Street and ending at South Pelham Road	**RR48 Niagara Street** Starting at Vine Street and ending at Carlton Street

2024 / In-Progress Safety Reviews (2025 Implementation)	2025 Safety Reviews (2026 Implementation)	2026 Safety Reviews (2027 Implementation)
	RR89 Glendale Avenue Starting at Highway 406 (west ramps) and ending at Glenridge Road	**RR57 Thorold Stone Road** Montrose Road Intersection
	RR98 Montrose Road Starting at McLeod Road and ending at the Hydro Corridor	**RR89 Glendale Avenue** Starting at Homer Road and ending at Taylor Road

An additional safety review of RR67 Beaverdams Road – Highway 406 Ramps to Ormond Street has been previously planned and will also commence in 2025.

Category 3: Network-Wide Initiatives

Network-wide initiatives seek to implement countermeasures across the Regional road network. Each countermeasure initiative will be tied to quantitative criteria to determine the best locations for review or implementation. Funding is allocated to each emphasis area based on its proportional share of total collisions.

Table 3 highlights new or expanded initiatives that will be undertaken in 2025. In addition to the new or expanded programs specifically listed, several existing countermeasure programs will continue throughout 2025. Examples include the ladder crosswalk, pedestrian crossover, and the red-light camera programs.

Table 3 - Network Wide Countermeasure Program

Emphasis Area	Network-Wide Countermeasures in 2025
Intersections	• Leading Pedestrian Intervals – determine criteria and expand to additional locations across region building on 2024 pilot installation at RR77 Welland Avenue / Court Street. • Sightline Review Study – initiate a consulting assignment to inventory and address sightline obstructions at Regional intersections.
Aggressive and Distracted Driving	• Speed Display Boards – expand the existing program to install approximately 25 additional locations based on speed and collision data. • Automated Speed Enforcement – expand from the four (4) to eight (8) camera program as previously approved by Council. • Traffic Calming – develop a traffic calming guideline focused on measures appropriate for Regional/arterial roads; expand the existing traffic calming bollard program to approximately 25 additional locations based on speed data. • Education Campaign – focused on dangers of distracted driving and use of handheld devices
Vulnerable Road Users	• Community Safety Zones – subject to Council approval, add two new Community Safety Zones on RR57 Thorold Stone Road and RR69 Pelham Road. • Updated Speed Limit Policy and Signs in School Zones – subject to Council approval, adopt and begin implementation of an updated speed limit policy and new signs in school zones. • Active Transportation Strategy - update the strategic active transportation plan as part of the Transportation Master Plan. • Education Campaigns – focused on use of roundabouts, pedestrian crossovers, and protection of motorcyclists.

Emphasis Area	Network-Wide Countermeasures in 2025
Young Drivers	• Road Safety Curriculum – leverage a successful federal funding application to work with academic and local partners to develop a road safety program for high-school aged drivers. • Young Driver Education Campaign – focused on addressing overrepresentation of young drivers in collision statistics.
Rural Roads	• Curve Warning Review – complete implementation program to ensure required signage is present at all curves on Regional roads. • Education Campaign – focused on safe driving habits near farm vehicles.
Commercial Vehicles	• Truck Regulation and By-Pass Enforcement – working with the Town of Lincoln, Ministry of Transportation, and other partners, join the existing enforcement program focused on illegal truck re-routing in west Niagara. • Education Campaign – focused on safe driving habits near and by commercial vehicles.
Impaired Driving	• Traffic Data – share additional traffic collision information with NRPS to support their ongoing R.I.D.E. program.

PW 16-2025 Appendix 3

Other Pertinent Reports

PW11-2024 - Vision Zero: Automated Speed Enforcement Preliminary Results and Next Steps

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=f1a449da-56b7-47e5-a046-29635f575803&Agenda=Merged&lang=English&Item=20&Tab=attachments

PW 34-2023 - Community Safety Zones Policy and Warrant

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=3ef66bf7-5d0c-4241-91d1-7b600bbd87fa&Agenda=Agenda&lang=English&Item=14&Tab=attachments

PW 11-2023 - Implementation of Red Light Cameras (RLC) Across Niagara Region

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=16e110c9-712b-4fbe-9436-07c97c48c1ab&Agenda=Merged&lang=English&Item=12&Tab=attachments

PW 34-2022 - Implementation of Automated Speed Enforcement

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=a9972d29-13ff-4e8f-9318-aeae86a746cc&Agenda=Agenda&lang=English&Item=25&Tab=attachments

PW 49-2021 -Designation of a Community Safety Zone on Regional Road 20 Lundy's Lane in the City of Niagara Falls

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=d58a4bbf-5b58-4a61-9439-46a1d0e3c407&Agenda=Merged&lang=English&Item=14&Tab=attachments

PW 32-2021 – Road Safety Annual Report

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=fb8bcc7a-a2dd-47eb-82f8-da6613253b90&Agenda=Agenda&lang=English&Item=14&Tab=attachments

PW 4-2020 - Vision Zero Road Safety Program: Designation of Community Safety Zones around Schools

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=04564006-29bd-4fd8-a3fa-4da4f79638dd&Agenda=Merged&lang=English&Item=13&Tab=attachments

PW 2-2020 - Implementation of Automated Speed Enforcement

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=04564006-29bd-4fd8-a3fa-4da4f79638dd&Agenda=Merged&lang=English&Item=12&Tab=attachments

PW 64-2019 - Vision Zero Road Safety Program

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=277bcf05-71ce-4d77-867e-5e839b3f87be&Agenda=Agenda&lang=English&Item=13&Tab=attachments

PW 38-2019 - Community Safety Zones

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=5a991a11-6ca0-4f35-b766-37bd8f2814fd&Agenda=Agenda&lang=English&Item=15&Tab=attachments

PW 36-2019 – Red Light Camera

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=5a991a11-6ca0-4f35-b766-37bd8f2814fd&Agenda=Agenda&lang=English&Item=14&Tab=attachments

PW 35-2019 – Automated Speed Enforcement – Safer School Zones Act

https://pub-niagararegion.escribemeetings.com/Meeting.aspx?Id=5a991a11-6ca0-4f35-b766-37bd8f2814fd&Agenda=Agenda&lang=English&Item=13&Tab=attachments

Subject: Request for Additional Funds for Quarry Road Landfill Leachate Management System Upgrades

Report to: Public Works Committee

Report date: Tuesday, April 8, 2025

Recommendations

1. That the gross capital budget for the Quarry Road Landfill Leachate Management System Upgrades **BE INCREASED** by $761,500 and that the increase **BE FUNDED** from the Capital Variance Project – Waste Management.

Key Facts

- This report seeks Council's approval to increase the gross capital budget for Project 10GL1325 (Quarry Road Landfill - Site Improvements) by $761,500 to support the completion of the project and allow the award of 2024-T-165 Quarry Road Landfill Leachate Management System Upgrades to the lowest bidder.
- The engineering design and estimate process was completed in 2022, with budget adjustments made in both 2022 and 2023. Despite these adjustments, all bid submissions exceeded the budget. The higher tender amounts can be attributed to several factors, including revisions to the electrical drawing package during the tendering process to upgrade the main line to the property.
- The current approved capital budget for this initiative is $3,385,000. With the approval of the proposed capital budget adjustment of $761,500, funded through the Capital Variance Project (CVP) – Waste Management, the total project budget will increase to $4,146,500.
- The purpose of this project is to upgrade the treatment of landfill leachate from the closed Quarry Road Landfill Site, thereby protecting the quality of downstream surface water.
- Per the Budget Control By-Law section 6.5(c)(iii), Council approval is required for Capital Variance requests greater than $250,000.
- The Ministry of Environment, Conservation and Parks Niagara District Office has expressed an interest in having this project completed in a timely manner.

Financial Considerations

The approved gross capital budget for the Quarry Road Landfill project (Project 10GL1325) is $3,385,000. The project includes environmental assessment, design, and construction of the upgraded leachate management system at the Quarry Road Landfill.

As of February 25, 2025, a total of $3,313,259 has been expended and committed to this project, of which $2,340,485 was committed to allow for the award of 2024-T-165 Quarry Road Landfill Leachate Management System Upgrades. The lowest compliant bid submission received was $3,051,538 (including non-recoverable HST) which results in a budget shortfall of $711,053 for this tender. Additionally, there are further project related costs estimated at $122,188 (including non-recoverable HST) to complete the project which will be allocated to construction, project contingency, and staff costs incurred for project management.

Therefore, the estimated remaining costs to complete the leachate management system upgrades are $833,241 which will bring the total revised project cost to $4,146,500 (including non-recoverable HST). As a result, a gross capital budget increase of $761,500 is being requested to cover the remaining estimated costs, funded from the CVP – Waste Management. A full breakdown of costs can be found in Appendix 1 to Report PW 18-2025 – Total Estimated Project Cost.

As of February 25, 2025, the uncommitted balance in the CVP – Waste Management is approximately $1,786,400, which is sufficient to support the requested adjustment of $761,500. In accordance with Section 6.5(c)(iii) of the Budget Control By-Law, Council approval is required for Capital Variance requests exceeding $250,000.

Analysis

The purpose of this project is to upgrade the treatment of landfill leachate from the closed Quarry Road Landfill Site (refer to Appendix 2), thereby protecting the quality of downstream surface water.

The current treatment system is a sub-surface constructed wetland where leachate and leachate-impacted water passes through gravel beds. The roots of wetland vegetation planted on the surface of the beds absorb the pollutants from the leachate, reducing their impact to the downstream surface water.

The processed water discharging from the wetland system into the adjacent creek does not meet the effluent quality criteria for iron and zinc set by the Ministry of the Environment, Conservation and Parks (MECP). As a consequence, there is a buildup of orange-coloured rust staining on the creek bed.

The Region and the MECP discussed steps to address the wetland treatment system inefficiency when it was first discovered in 2018. It was agreed that the Region would conduct an Environmental Assessment (EA) to explore and evaluate alternative treatment technologies. The EA was initiated in 2019 and completed in 2021, with the preferred solution being the replacement of the current wetland system with an ozone treatment system. The new system would oxidize contaminants into particulate form, and these particulates would then be removed through a series of filter canisters before discharging the treated water into the creek. Following completion of the EA, pilot-scale field studies were conducted on-site to confirm that this preferred option would reduce iron and zinc levels to meet the discharge criteria.

In 2024 staff initiated a competitive procurement for the upgraded treatment system (2024-T-165 Quarry Road Landfill Leachate Management System Upgrades). Four compliant submissions were received with Gedco Excavating Ltd. being the lowest compliant bidder at a price of $2,998,760 excluding HST (equating to $3,051,538 including non-recoverable HST).

Staff are requesting a budget increase of $761,500 to award the tender, which is necessary to protect the creek and ensure compliance with the effluent criteria established by the Ministry of the Environment, Conservation and Parks.

Alternatives Reviewed

Do not approve the increase in funds resulting in the cancellation of the Tender (Not Recommended)

The contractor will be unable to construct the infrastructure upgrades. As a result, the Region would be out of compliance with the landfill ECA and Ontario Environmental Protection Act.

Relationship to Council Strategic Priorities

Funding to advance the award of 2024-T-165 will provide upgraded infrastructure to successfully minimize risk to the environment in support of the following Council priorities.

Council Priority: Green and Resilient Region

(https://www.niagararegion.ca/priorities/default.aspx) mandate to protect and nurture an environment-friendly Niagara. Mitigating landfill leachate impacts to the adjacent creek will improve surface water quality along the Niagara Escarpment, enhancing the natural environment.

Council Priority: Effective Region

(https://www.niagararegion.ca/priorities/default.aspx) mandate to boost efficiency in Regional services. The current leachate treatment system is ineffective at mitigating all of the leachate impact to the adjacent creek. The upgrade to the leachate management system will increase treatment efficiency through continuous improvement and modernized processes to mitigate landfill impacts.

Other Pertinent Reports

Not applicable.

Prepared by:
Jamie Kristjanson, P.Eng.
Hydrogeologist & Environmental Engineer
Waste Management Services, Public Works

Recommended by:
Terry Ricketts, P.Eng.
Commissioner of Public Works
Public Works Department

Submitted by:
Ron Tripp, P.Eng.
Chief Administrative Officer

This report was prepared in consultation with Mackenzie Glenney, Program Financial Specialist, Renee Muzzell, Manager, Program Financial Support and Michelle Rasiulis, Procurement Manager, and reviewed by Catherine Habermebl, Director, Waste Management.

Appendices

Appendix 1	Total Estimated Project Cost
Appendix 2	Key Plan

PW 18-2025 Appendix 1

Total Estimated Project Cost - Quarry Road Landfill - Site Improvements (10GL1325)

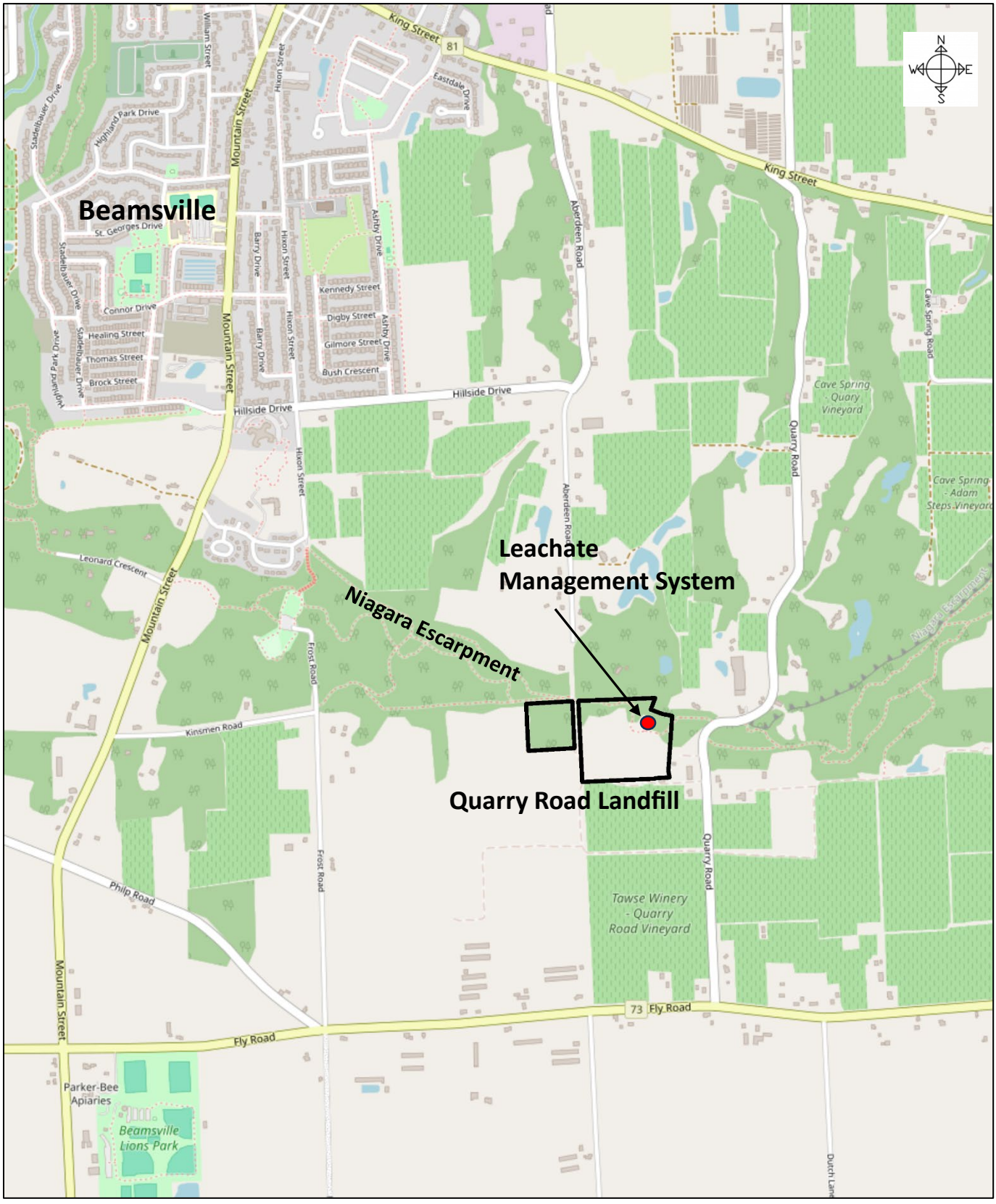
Total Estimated Project Cost (10GL1325)*	**Council Approved Budget**	**Budget Increase/ Reallocation**	**Revised Council Approved Budget**	**Expended & Committed as of 02/25/2025**	**Contract Award/ Forecast**	**Budget Remaining**
Project Element	**(A)**	**(B)**	**(C) = (A) + (B)**	**(D)**	**(E)**	**(F) = (C)-(D)-(E)**
(a) Construction (including Construction Contigency and 1.76% non-recoverable HST)**	2,865,000	638,237	3,503,237	2,741,737	761,500	-
(b) Project Contingency	152,000	(90,259)	61,741	-	61,741	-
(c) Consulting Engineering Services	-	-	-	-	-	-
i. Detailed Design	225,000	300,505	525,505	525,505	-	-
ii. Environmental Assessment	-	41,796	41,796	41,796	-	-
(d) Project Management (In-House) and Operations	143,000	(128,779)	14,221	4,221	10,000	-
Total Estimated Project Cost	**3,385,000**	**761,500**	**4,146,500**	**3,313,259**	**833,241**	**-**

Waste Management Capital Reserve	(400,000)	-	(400,000)	(400,000)	-	-
Landfill Liability Reserve	(2,985,000)	-	(2,985,000)	(2,913,259)	(71,741)	-
Capital Variance Project - Waste Management	-	(761,500)	(761,500)	-	(761,500)	-
Total Project Funding Sources	**(3,385,000)**	**(761,500)**	**(4,146,500)**	**(3,313,259)**	**(833,241)**	**-**

*All costs include 1.76% non-recoverable HST

PW 18-2025 Appendix 2: Key Plan

Quarry Road Landfill Leachate Management System Upgrades



Niagara Region

Public Works
1815 Sir Isaac Brock Way, Thorold, ON L2V 4T7
905-980-6000 Toll-free: 1-800-263-7215

Memorandum

PWC-C 1-2025

Subject: Update on Public Works Capital Projects – Q1 2025

Date: April 8, 2025

To: Public Works Committee

From: Terry Ricketts, Commissioner of Public Works

The purpose of this memorandum is to update the Public Works Committee on the status of Public Works capital projects.

There are currently 483 active capital projects in various stages within the Public Works Department relating to Transportation Services, Waste Management Services and Water and Wastewater (WWW) Services.

Appendix 1 contains a status update for 74 capital projects. These projects are mapped in Appendix 2 and have been selected because they are of public interest, are in construction now or will be in 2025, they have an effect on the community, because they are significant in scale or strategically important.

Five projects below are profiled in detail because they are of particular interest to the Region and community.

(1) Laurie Avenue Sewage Pumping Station and Forcemain Upgrade Project (Capital Project 20000702)

The Laurie Avenue Sewage Pumping Station was identified for growth driven capacity upgrade in the 2016 Master Servicing Plan which was further supported by the Town of Lincoln's Prudhommes Secondary Plan Area – Wastewater Servicing Impact Considerations memorandum. The existing station was constructed in 1979 with some rehabilitation work completed to the station in 2011 and a section of forcemain from the intersection at the North Service Road and Victoria Avenue North to south of the QEW upgraded in 1998. This capital project supports the development in progress at Prudhommes Landing in Lincoln by increasing the station's pumping capacity from 28 L/s to 90 L/s. The Region was successful in receiving the Housing Enabling Water Systems Funding from the Province for $8.7 million for this growth supportive project.

The design work for this project was completed in Q2 2024 and construction is currently scheduled to mobilize in March 2025 and continue until October 2025. Installation of the new forcemain will be completed first and is anticipated to take nine (9) weeks followed by the station construction which is anticipated to take six (6) months. Project status, to date, includes initiating procurement of long lead delivery items to ensure a continual and organized schedule.

The construction upgrade for this project will:

- Construct new underground infrastructure (wet well, valve chamber) and install new pumps, process piping, electrical, instrumentation and control systems.
- Demolish existing control building and install a new covered shelter and outdoor natural gas generator.
- Install 520 metres of new forcemain from the station to the intersection of North Service Road and Victoria Avenue North
- Complete site restoration and improvements
- Reline culvert at Laurie Avenue creek crossing. The culvert relining is funded by the Town of Lincoln and included in the project through a cost sharing agreement.

During construction, no service interruptions for water, wastewater, power or gas supply to neighboring properties is expected. At times during the forcemain construction access to some driveways may be limited for a short duration but direct notice and accommodations will be coordinated in advance. Traffic impacts resulting in lane closures are expected during forcemain construction however occurrences and durations will be minimized where possible. Project status updates will be shared with interested parties and the public through the online project webpage and through postal delivered letters. Niagara Region is committed to support existing residents through construction and the Prudhommes Landing development through this project.

(2) New Fort Erie Elevated Tank (Capital Project 20000614)

Niagara Region is progressing with the construction of a 9,000m³ composite elevated water tank at 1886 Pettit Road, Fort Erie. This project was tendered in December 2024, with submissions closing on February 3, 2025. Contract award is expected by the end of May, and construction is set to commence in June 2025.

The scope of work for this project includes:

- Design and construction of a composite water storage tank with a net working capacity of 9,000m³, including a ground-level valve room, chemical room, washroom, piping, protective coatings, and related appurtenances,
- Construction of yard piping, encompassing a single inlet/outlet watermain, storm and sanitary sewers, duct structures, grading, access driveway, fencing, and landscaping, and
- Supply and installation of electrical, instrumentation, SCADA, and mechanical systems.

The new elevated tank will replace the aging Stevensville Reservoir and Central Avenue Elevated Tank, improving Fort Erie's water storage capacity, enhancing pumping operations, reducing long-term costs, and supporting the community's growth needs through 2051.

Community impact during construction will be carefully managed, with efforts to minimize disruptions in the vicinity. Updates on the project timeline and milestones will be shared with stakeholders and the public as work progresses. This project reflects the Region's commitment to ensuring reliable and efficient water services while accommodating the needs of a growing community.

(3) Glenridge – Passive Gas System for Closed Landfill (Capital Project 20000167)

The Glenridge Quarry Naturalization Site (GQNS), formerly known as the Glenridge Quarry Landfill Site was operated as a quarry prior to 1976 when it began operating as a landfill. In December 2001, the landfill closed and was subsequently turned into a naturalization site.

Although the site has long been closed as a landfill, it still produces gases from the buried landfill material. Over the past couple of years, gas has been observed near the east and south property boundaries. This project has upgraded the existing Passive Gas Venting System (the Gas System) on the east side of the property and a new Gas System has been installed on the south side of the site. Sheet pile/cut off walls were added down gradient to mitigate the potential for any combustible gas to migrate beyond either property boundary. The final stage of the project has involved the installation of over 60 boreholes on the east property boundary that have been used to grout/seal the overburden bedrock interface. Throughout the project, short-term trail

closures were posted at the trail heads and/or access roads. No issues or concerns were identified.

Completion of these project tasks will mitigate gas migration beyond the site and address instructions by the Ministry of Environment Conservation and Parks to address issues related to the presence of the combustible gas.

Work is expected to be completed at the end of February 2025

(4) Mountain Road – Leachate Collection System Upgrades for Closed Landfill (Capital Project 20000887)

The closed Mountain Road Landfill Site, in Niagara Falls, started operations in 1976 and closed in December 2001.

Sections of the leachate collection system (LCS) are nearly 50 years old, and the capacity is nearly maximized. Due to the age of the LCS, certain manholes are in poor condition and must be replaced. Improvements are being made to the LCS to increase its capacity and improve its effectiveness in capturing leachate.

The project is scheduled to start early spring, with completion in late 2025. As part of closing out the Class EA process, surrounding property owners were notified of the project. Periodic short-term closures or re-alignments of nearby walking trails might be required to accommodate project work. Like Glenridge, trail heads and impacted areas will be signed and fenced off as needed.

(5) Replacement of Twenty Mile Creek Arch Bridge (081220) (Capital Project 20000663)

The Twenty Mile Creek Arch Bridge on RR81 King Street in the Jordan Valley was recommended for replacement. In June 2022, the Municipal Class Environmental Assessment (EA) Study was completed, recommending replacement with a two-lane structure, and inclusion of active transportation facilities.

The Region and the Town of Lincoln collaborated throughout the design process to ensure local requirements were met. As part of the project, the rebuild of the Town’s Sho’arishon Park, located adjacent to the bridge, has been integrated into the plan. Additionally, a First Nation-themed pedestrian barrier will be incorporated into the bridge structure, reflecting the area's cultural heritage.

In January 2025, a Public Information Centre was held to inform residents about the project and share details on the construction process.

Construction of the new bridge will be completed in stages. A temporary single-lane bridge has been installed to maintain traffic flow through the construction site, ensuring continued access along RR81 King Street through the valley.

Construction is expected to continue through March 2026, with periodic short closures required for site work. During this time, pedestrian access over the bridge may be temporarily restricted. Efforts will be made to minimize disruptions to businesses and residents as much as possible. Niagara Region staff will notify local resident in advance of any closure or service interruptions and work to arrange alternative solutions.

(5) Replacement of St. Paul West CNR Bridge (081215) (Capital Project 10RC1566)

The Municipal Class Environmental Assessment (EA) Study was completed in September 2016 identifying the bridge replacement. The EA recommended the following improvements:

- Replacement of bridge with a two-lane structure
- Geometric improvements to the approaches
- Bicycle facilities
- Sidewalk improvements
- Improvements to Great Western Street access

The Region and the City of St. Catharines collaborated through the design process to ensure local requirements were included. The bridge replacement is part of a broader project aimed at improving the transportation network and GO facilities in the area. The works as part of the overall project include:

- St. Paul Street West CNR Bridge replacement (Niagara Region)
- St. Catharines Train Station / Transit Hub site works (Niagara Region)
- Station access road from Ridley Road to the Train Station / Transit Hub (Niagara Region and City of St. Catharines)
- Ridley Road reconstruction (City of St. Catharines)

The bridge has been closed to traffic since November 2023 and the existing structure was demolished in November 2024. In January 2025, the station access road was

completed and Great Western Street was closed to allow for construction of the new bridge approaches on St. Paul Street. Construction of the new bridge has begun and is expected to continue through to 2026.

The bridge will remain closed until it reopens to one-way traffic in December 2025. Detours will remain in place for the duration of the project. While access to the bridge is limited, all businesses remain open and Region staff will continue to provide updates on progress and the scheduled reopening.

Where to Find More Information

Information about capital projects can be found online on project webpages found on the Region's website or where a project webpage is not available, by contacting the listed Director (information is provided in Appendix 1).

Staff will provide the next update on capital projects to Committee in fall of 2025.

Respectfully submitted and signed by

_____

Terry Ricketts, P.Eng.
Commissioner of Public Works

Appendices

Appendix 1	Public Works Capital Projects Update Summary
Appendix 2	Niagara Region Public Works Capital Projects [Map]

Niagara Region Public Works Capital Projects Update

Niagara Region // April 8, 2025

PWC-C-1-2025 – Appendix 1

Table of Contents

Fort Erie 1
Grimsby 3
Lincoln 5
Niagara Falls 8
Niagara-on-the-Lake 13
Pelham 15
Port Colborne 17
St. Catharines 18
Thorold 22
Wainfleet 23
Welland 24
West Lincoln 27
Glossary 28

Fort Erie

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Reconstruction of RR116 Stevensville Rd from Eagle St to Bowen Rd including the replacement of Stevensville Rd Bridge (116215)	Road reconstruction project including intersection improvements, active transportation and bridge replacement	Design	Detailed Design	Road Rehabilitation	Detailed Design 30%	Frank Tassone
Water-Wastewater	New Fort Erie Elevated Water Tank	Design for a new ET and associated distribution and transmission system in Fort Erie.	Design	Tendering	Water Sustainability	Construction	New Fort Erie Elevated Water Tank
Water-Wastewater	New Trunk Watermain in Central Fort Erie	Decommissioning of the Old Central Avenue Elevated Tank resulting in new trunk watermain, for adequate water supply to Central Fort Erie	Design	Design - 40%	Water Sustainability	Design - 60%	New Trunk Watermain in Central Fort Erie

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	Lakeshore Road SPS Upgrades	Detailed design for a full station sustainability and capacity increase upgrades.	Design	Design – 100%	Wastewater Sustainability	Tendering / Construction	Lakeshore Road SPS Upgrade
Waste Management	Bridge Street Drop Off Depot Improvements	Upgrades to improve customer service, reduce weight times and make operational improvements. Included new scales, scalehouse, dump pad and access road.	Warranty	Warranty	Waste - Improvements	Warranty	Catherine Habermebl
Waste Management	Bridge St - Paving Upgrades	Paving of Drop-Off Depot and ancillary roadways around the Depot to reduce dust and maintenance	Design	Design	Waste - Road Rehabilitation	Tender	Catherine Habermebl

Grimsby

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Capacity Improvement of RR10 Casablanca Blvd from Main St to North Service Rd	Road reconstruction project including road widening, intersection improvements and active transportation	Design	Detailed Design 100%	Capacity Improvement	Tender	Widening of Casablanca Blvd
Transportation	Reconstruction of RR81 Main St W from Oakes Rd to Casablanca Blvd	Road reconstruction project including drainage improvements and active transportation	Design	Detailed Design 60%	Road Rehabilitation	Detailed Design 90%	Reconstruction of Main St W
Transportation	Reconstruction of RR81 Main St Phase 1 from DSBN HS to Park Rd N	Road reconstruction project including urbanization and active transportation	Design	Detailed Design	Road Rehabilitation	Detailed Design 30%	Reconstruction of Main St

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	New Trunk Watermain from Grimsby WTP to Parkridge Reservoir	Environmental Assessment for new high-pressure feeder main from the Grimsby WTP to the new Parkridge Reservoir.	Study	Study	Water Capacity Upgrade	Field Investigations, Study continuation	New Trunk Watermain from Grimsby WTP to Parkridge Reservoir

Lincoln

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Reconstruction of RR81 King St from Durham Rd to Lincoln Ave	Road reconstruction project including drainage improvements, intersection improvements and active transportation	Design	Detailed Design 100%	Road Rehabilitation	Tender	Reconstruction of King St
Transportation	Reconstruction of RR81 King St from Vinehaven Trail to 23rd St	Road reconstruction project including road widening, intersection improvements and active transportation	Design	Detailed Design 60%	Road Rehabilitation	Detailed Design 90%	Reconstruction of King St
Transportation	Replacement of 20 Mile Arch Bridge (081210)	Full Bridge Replacement	Construction	Construction	Structural Rehabilitation	Construction continues	20 Mile Arch Bridge

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	Laurie Ave Sewage Pump Station & Forcemain	The Sewage Pumping Station (SPS) was identified as a growth-driven capacity upgrade and includes the design and construction of an expanded SPS and approximately 850m of forcemain.	Construction	Construction	Wastewater Capacity Upgrade	Construction	Phill Lambert
Water-Wastewater	Ontario Street Watermain Replacement	Replacement of 1.7km of transmission watermain on Ontario Street between Greenlane & King Street.	Construction	Construction continues	Water Sustainability	Construction Completion Summer 2025	Ontario Street WM Replacement

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	Victoria Avenue Watermain	Replacement of 900m of transmission watermain on Victoria Avenue between King Street and Moyer Road in the Town of Lincoln	Warranty	Warranty	Water Sustainability	Warranty	Victoria Avenue Watermain
Waste Management	Quarry Road Landfill Leachate Management System (LMS)	Replacement of a the current LMS with a new re-designed system that will better treat impacts to receiving water body	Tender	Tender	Waste - Improvements	Construction – Q2 2025	Catherine Habermebl

Niagara Falls

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Intersection Improvement at RR57 Thorold Stone Rd and Dorchester Rd	Intersection Improvement project including turning lane modifications and active transportation	Study	Project Initiation	Intersection Improvement	EA	Frank Tassone
Transportation	Reconstruction of RR20 Lundy's Lane from Montrose Rd to Highland Ave	Road reconstruction project including intersection improvements and active transportation	Study	EA	Road Rehabilitation	Detailed Design	Reconstruction of Lundy's Lane
Transportation	New Road RR57 Thorold Stone Road - Roundabout to Existing Limit	New road construction including active transportation	Design	Detailed Design 30%	Capacity Improvement	Detailed Design 60%	Road Extension of Thorold Stone Rd

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Capacity Improvements of RR49 McLeod Rd Phase 2 Hydro Canal (HEPC) to Wilson Cr	Road reconstruction project including road widening, intersection improvements and active transportation	Design	Detailed Design 90%	Capacity Improvement	Detailed Design 100%	Reconstruction of McLeod Rd
Transportation	Reconstruction of RR43 Bridge St from Victoria Ave to Erie Ave	Road reconstruction project including road widening and active transportation	Design	Detailed Design 30%	Road Rehabilitation	Detailed Design 60%	Reconstruction of Bridge St
Transportation	Capacity Improvement of RR47 Lyon's Creek Rd Phase 1 from Montrose Rd to Dell Rd	Road reconstruction project including road widening, intersection improvements and active transportation	Design	Detailed Design 90%	Road Rehabilitation	Detailed Design 100%	Reconstruction of Lyon's Creek Rd

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Rehabilitation of Hydro Canal North Bridge (020230)	Bridge Rehabilitation	Design	Tender	Structural Rehabilitation	Construction	Frank Tassone
Transportation	Capacity Improvement of RR98 Montrose Rd Phase 1 from Lyons Creek Rd to Grassy Brook Rd	Road reconstruction project including road widening, intersection improvements and active transportation	Construction	Warranty	Capacity Improvement	Project Completion	Reconstruction of Montrose Rd
Water-Wastewater	South Niagara Falls Trunk Sewer	Detailed design for a new trunk sewer from the existing South Side HL to the new South Niagara WWTP	Design	Design 10%	Wastewater Sustainability	Design 10%	New South Niagara WWTP

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	New Niagara Falls Elevated Tank	Environmental Assessment and Land Acquisition for the replacement of the Lundy's Lane ET with a new ET	Study	Study	Water Sustainability	Design	New Niagara Falls Elevated Tank
Water-Wastewater	New South Niagara WWTP	Design for a new WWTP in south Niagara to accommodate anticipated growth.	Design	Design 10%	Wastewater Capacity Upgrade	Design 10%	New South Niagara WWTP
Water-Wastewater	Rolling Acres PS and FM Upgrades	Detailed design for a full station upgrade and forcemain replacement	Design	Design – 90%	Wastewater Sustainability	Design – 100%	Rolling Acres PS and FM Upgrades
Water-Wastewater	Niagara Falls WTP Intake Relocation	Relocation of the WTP intake to accommodate OPG power canal shutdown	Design	Design – 40%	Water Sustainability	Design – 60%	Niagara Falls WTP Temporary Intake

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	Thundering Waters Sewer Rehabilitation	Rehabilitation of approximately 1.8kms of 1200mm diameter sewer including manholes	Tendering	Tender Award	Wastewater Capacity Upgrade	Construction Begins	Phill Lambert
Water-Wastewater	Niagara Falls WWTP Secondary Treatment Upgrades	Upgrades to the secondary treatment, disinfection system, channel aeration, coagulation and flocculant system, substation and emergency power generator	Construction	Construction	Wastewater Sustainability	Construction continues	Phill Lambert
Waste Management	Mountain Road Leachate Collection System (LCS) Upgrades	Improvements to the LCS to enhance functionality and avoid potential impacts to the environment.	Tendering	Tender Award	Waste - Sustainability	Construction - Q1 2025	Catherine Habermebl

Niagara-on-the-Lake

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Reconstruction of RR61 Townline Rd from RR102 Stanley Ave to RR100 Four Mile Creek Rd	Road reconstruction project including intersection improvements and active transportation	Study	Study Complete	Road Rehabilitation	Detailed Design	Frank Tassone
Transportation	Reconstruction of RR55 Niagara Stone Rd (Phase 1) from Four Mile Creek Rd to Line 1 Rd	Road reconstruction project including intersection improvements and active transportation	Construction	Warranty	Road Rehabilitation	Project Completion	Reconstruction of Niagara Stone Rd
Transportation	Reconstruction of RR55 Niagara Stone Rd (Phase 2) from Line 1 Rd to East West Line	Road reconstruction project including intersection improvements and active transportation	Design	Detailed Design 90%	Road Rehabilitation	Detailed Design 100%	Reconstruction of Niagara Stone Rd

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	York Road W/M Replacement	Design for the replacement of 3km of existing ductile iron watermain with new PVC watermain	Tendering	Tender Award	Water Sustainability	Construction Begins	York Road W/M Replacement

Pelham

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Capacity Improvement of RR37 Merritt Rd from Hwy 406 to Rice Rd	Road reconstruction project including new road from Cataract Rd to Merritt Rd, road widening, intersection improvements and active transportation	Study	EA Review Period	Capacity Improvement	EA Complete	Reconstruction of Merritt Rd
Transportation	Capacity Improvement of RR54 Rice Rd from Merritt Rd Quaker Rd	Road reconstruction project including road widening, intersection improvements and active transportation	Study	EA Review Period	Capacity Improvement	EA Complete	Reconstruction of Rice Rd

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	New Pelham Elevated Tank EA	New ET is required in Pelham. The existing Pelham ET will be decommissioned and demolished post construction of new ET.	Design	RFP Awarded	Water Compliance	Design 10%	New Pelham Elevated Tank EA
Waste Management	Centre Street - Paving Upgrades	Paving of Leash Free Dog Park parking lot to reduce ongoing maintenance	Design	Design	Waste - Road Rehabilitation	Tender	Catherine Habermebl

Port Colborne

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	Eastside SPS Forcemain/Barrick Road Watermain Detailed Design (Project Eagle)	FM crossing beneath Seaway canal to facilitate development of the east side of Port Colborne. Full forcemain. Partnership with the City of Port Colborne	Design	Detailed 90%	Water Growth and Wastewater Sustainability	Tender April/25	Eastside Employment Lands Water and Wastewater Servicing
Water-Wastewater	Port Colborne City Hall SPS and Forcemain Upgrade	Design and construction for the replacement of existing cast iron forcemain with new PVC forcemain.	Design	Design – 90%	Wastewater Sustainability	Design – 100%	City Hall SPS and Forcemain Upgrade

St. Catharines

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Reconstruction of RR42 Ontario St from Linwell Rd to Welland Ave	Road reconstruction project including intersection improvements and active transportation	Study	PIC 2	Road Rehabilitation	PIC 3	Reconstruction of Ontario St
Transportation	Reconstruction of RR72 Louth St from RR81 St. Paul St W to Crestcombe Rd	Road reconstruction project including urbanization, intersection improvements and active transportation	Study	PIC 3	Road Rehabilitation	Detailed Design RFP	Reconstruction of Louth St
Transportation	Reconstruction of RR48 Niagara St from Carlton St to Scott St	Road reconstruction project including urbanization and active transportation	Design	Detailed Design 60%	Road Rehabilitation	Detailed Design 90%	Reconstruction of Niagara St

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Replacement of St. Paul W CNR Bridge (081215)	Bridge Replacement	Construction	Construction	Structural Rehabilitation	Construction continues	Replacement of St. Paul W CNR Bridge
Transportation	Replacement of JR Stork Bridge (038205)	Bridge Replacement	Design	Detailed Design 90%	Structural Rehabilitation	Detailed Design 100%	Replacement of JR Stork Bridge
Transportation	Rehabilitation of Seventh St Bridge (034205)	Bridge Rehabilitation	Construction	Construction	Structural Rehabilitation	Construction continues	Frank Tassone
Transportation	Reconstruction of St. Catharine's Go Station Road Network	Reconstruction project to include site works, parking lot and bus loops	Construction	Construction	Road Rehabilitation	Construction continues	Reconstruction of St. Catharines Go Station
Transportation	Reconstruction of RR42 Ontario St from Lakeshore Rd to Linwell Rd	Road reconstruction project including urbanization, intersection improvements and active transportation	Construction	Warranty	Road Rehabilitation	Project Completion	Reconstruction of Ontario St

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	Port Dalhousie WWTP Upgrades - Contract 1	Aeration process upgrade including, New Aeration tanks, blower building and SCADA controls, and decommissioning of existing infrastructure	Warranty	Warranty ongoing	Wastewater Sustainability	Warranty continues	Port Dalhousie WWTP Upgrades - Contract 1
Water-Wastewater	DeCew WTP Plant 3 Contract 2	New superstructure above the flocculation and settling tanks and filter building including new HVAC, electrical, upgrades to low-lift pumping station	Construction	Construction ongoing	Water Sustainability	Construction continues	Phill Lambert

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Waste Management	Glenridge – Passive Gas System	Construction of a passive gas venting system and sheet pile wall to mitigate off-site migration of landfill gas	Construction	Construction	Waste - Improvements	Warranty - Q1 2025	Catherine Habermebl
Waste Management	Glenridge Leachate Collection System (LCS) Header Replacement	Stormwater management and leachate collection system improvements.	Completed	Warranty	Waste - Sustainability	Warranty	Catherine Habermebl

Thorold

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Capacity Improvement of RR37 Merritt Rd from Hwy 406 to Rice Rd	Road reconstruction project including new road from Cataract Rd to Merritt Rd, road widening, intersection improvements and active transportation	Study	EA Review Period	Capacity Improvement	EA Complete	Reconstruction of Merritt Rd
Water-Wastewater	Beaverdams SPS Upgrade & Forcemain Replacement	The Beaverdams SPS was identified for a capacity upgrade.	Construction	Construction ongoing	Wastewater Capacity Upgrade	Construction continues	Beaverdams SPS Upgrade & Forcemain Replacement

Wainfleet

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Replacement of Oswego Creek Bridge (045205)	Full Bridge Replacement	Construction	Tender	Structural Rehabilitation	Construction	Oswego Creek Bridge

Welland

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Capacity Improvement of RR37 Merritt Rd from Hwy 406 to Rice Rd	Road reconstruction project including new road from Cataract Rd to Merritt Rd, road widening, intersection improvements and active transportation	Study	EA Review Period	Capacity Improvement	EA Complete	Reconstruction of Merritt Rd
Transportation	Capacity Improvement of RR54 Rice Rd from Merritt Rd Quaker Rd	Road reconstruction project including road widening, intersection improvements and active transportation	Study	EA Review Period	Capacity Improvement	EA Complete	Reconstruction of Rice Rd
Water-Wastewater	Bemis Park Elevated Tank Environmental Assessment	Existing tank slated for replacement, EA addresses deficiencies related to future storage requirements and pumping capacity to ensure adequate sizing of future ET.	Study	EA Ongoing	Water Compliance	EA Continues	Bemis Park Elevated Tank

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Water-Wastewater	Welland WTP Transmission Main - Welland Canal Crossing	New water main crossing Welland Recreational Canal, included in works is Merritt Street rehabilitation of road with City of Welland	Design	Design – 100%	Water Capacity Upgrade	Tendering	Welland WTP Transmission Main - Welland Canal Crossing
Water-Wastewater	Quaker Road Trunk Main	Design and construction of 600m of sanitary gravity sewer on Quaker Road from Pelham Street to Rice Road	Construction	Construction ongoing	Wastewater Capacity Upgrade	Construction continues	Quaker Road Trunk Main
Water-Wastewater	Welland WTP Phase 2 Upgrades	Replacement/Upgraded WTP at Welland	Design	Detailed Design 75%	Water Growth and Sustainability (Non-DC)	90% March/25	Gordon Bell
Waste Management	Humberstone Drop Off Depot Improvements	Addition of by-pass lane with gate, additional lane traffic lane and drainage improvements	Complete	Warranty	Waste – Improvements	Warranty	Catherine Habermebl

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Waste Management	Humberstone - Paving Upgrades	Paving of entrance and roadway leading to the scales and new bypass road	Complete	Warranty	Waste - Road Rehabilitation	Warranty	Catherine Habermebl

West Lincoln

Division	Project Name	Project Description	Stage	Progress	Service & Program	Next Steps	Webpage Link / Contact
Transportation	Reconstruction of RR20 West St Phase 4 from South Grimsby Rd 5 to Wade Rd	Road reconstruction project including urbanization and active transportation	Design	Tender	Road Rehabilitation	Construction	Reconstruction of West St
Transportation	Reconstruction of RR69 Twenty Mile Rd from RR24 Victoria Ave to Rosedene Rd	Road reconstruction project including active transportation	Design	Detailed Design 100%	Road Rehabilitation	Tender	Reconstruction of Twenty Mile Rd
Waste Management	Niagara Road 12 Drop Off Depot Improvements	Construction of new dump pad and road improvements.	Completed	Warranty	Waste - Improvements	Warranty	Catherine Habermebl

Glossary

Division	Term	Acronym	Definition
WWW	Water Treatment Plant	WTP	Water Treatment Plant
WWW	High-Lift	HL	Large pumps that operate under high pressure
WWW	Trunk Main	TM	Potable water distribution pipes carrying a significant amount of water at high pressure. (Linear works)
WWW	Watermain	WM	Potable water distribution pipes carrying less water than a Trunk Main
WWW	Elevated Tank	ET	Used to store potable drinking water within a designated area or community. Elevated tanks allow the natural force of gravity to produce consistent water pressure throughout the system
WWW	Wastewater Treatment Plant	WWTP	Wastewater Treatment Plant
WWW	Biosolids	BS	Organic matter recycled from sewage.
WWW	Sewage Pump Station	SPS	Local infrastructure to convey effluent to central collection points.
WWW	Forcemain	FM	Wastewater distribution pipes carrying waste under pressure to central locations. (Linear works)

Division	Term	Acronym	Definition
WWW	Lagoon	L	A large pond-like basin, into which wastewater flows for storage and treatment.
WWW	Capacity Upgrade	-	Design of new or upgrade of existing facilities to accommodate growth
WWW	Sustainability Upgrade	-	Design of new or upgrade of existing facilities to continue operations.
Transportation	Regional Road	RR	Regional Road
All Divisions	Environmental Assessment	EA	An environmental assessment is a process to identify, predict and evaluate the potential environmental effects of a proposed project
All Divisions	Public Information Centre	PIC	Public Information Centre means an open meeting to which all members of the public are invited
All Divisions	Request for Proposal	RFP	A request for proposal is a procurement document that announces and describes a project or purchase request

Niagara Region Public Works
Active Capital Construction Projects

PWC-C 1-2025 – Appendix 2