



MUNICIPALITY OF

PORT HOPE

RAIL SAFETY PLAN

Municipality of Port Hope Rail Safety Plan

Prepared by:

The Loomex Group
550-925 Airport Rd
Peterborough, ON K9J 0E7
705-775-5022
loomex.ca

© 2025

Table of Contents

Executive Summary	3
1.0 Introduction	4
1.1 Purpose of the Rail Safety Plan.....	4
1.2 Scope of the Rail Safety Plan.....	4
1.3 Background	4
1.4 Legislative Framework.....	4
1.5 Roles and Responsibilities	5
2.0 Emergency Preparedness	6
2.1 Rail Risk Environmental Scan	6
2.2 Transportation Safety Board Data	7
2.3 Communication Strategies	8
2.3.1 Railroad Safety Messaging.....	9
2.4 Preparedness Actions	11
2.5 Resources for Community Emergency Planning	12
2.5.1 Regulatory Reports	12
2.5.2 Railroad Contingency Plans	13
2.5.3 Response Guides and Applications.....	13
2.5.4 Emergency Response Assistance.....	14
3.0 Emergency Prevention.....	15
3.1 Proactive Inspections and Analytics	15
3.2 Infrastructure Monitoring and Maintenance	15
3.3 Fire Risk Mitigation	16
3.4 Emergency Response Programs.....	16
4.0 Emergency Response	17
4.1 Initial Detection.....	17
4.2 Notification.....	19
4.3 Situational Awareness and Scene Assessment	19
4.4 Secure and Contain.....	24
4.5 Command and Control	25
4.6 Derailment Specific Responses.....	25
4.7 General Response	26
5.0 Emergency Recovery	28
5.1 Remediation	28
5.2 Demobilization of Resources.....	28
5.3 Accident Investigation	28
5.4 Debriefing and After-Action Reporting	28
6.0 Resources	30
6.1 Training	30

6.2	Documentation (Plans and Guides).....	30
6.3	Applications	31
7.0	Plan Administration.....	32
7.1	Plan Maintenance and Review	32
7.2	Plan Distribution	32
7.3	Revision Control	32

List of Tables

Table 1. Record of plan revisions.....	32
--	----

List of Figures

Figure 1. Map of the Municipality of Port Hope with the CN and CPKC tracks.....	6
Figure 2. Map of fire response zones and rail crossings in Northumberland County. ...	17
Figure 3. Map of the fire response zones and rail crossings in Port Hope.	18
Figure 4. Diagram of the CN ICS unified command structure.	22
Figure 5. Diagram of the CPKC ICS unified command structure.....	23

Executive Summary

The Port Hope Rail Safety Plan provides a comprehensive framework for addressing rail incidents within the Port Hope region. This plan focuses on preparing, preventing, responding to, and recovering from rail-related emergencies. It aims to protect public safety, minimize property and environmental damage, and maintain economic stability in the event of rail incidents.

The Port Hope Rail Safety Plan is organized into seven key sections:

- **Introduction:** Defines the plan's purpose, scope, and background, including relevant legislative frameworks and assigned roles and responsibilities.
- **Emergency Preparedness:** Outlines proactive steps, including a rail risk environmental scan, communication strategies, and access to regulatory resources. These preparedness actions enhance community readiness for potential rail emergencies.
- **Emergency Prevention:** Describes the measures rail companies employ to prevent incidents, such as proactive inspections, infrastructure monitoring, and fire risk mitigation.
- **Emergency Response:** Provides protocols for immediate response, including initial detection, notification procedures, situational awareness, and containment strategies tailored to specific derailment scenarios.
- **Emergency Recovery:** Focuses on post-incident efforts such as remediation, resource demobilization, accident investigation, and debriefing to integrate lessons learned into future preparedness.
- **Resources:** Lists essential resources, guides, and applications available to local responders and stakeholders for effective incident management.
- **Plan Administration:** Ensures the plan remains current through regular review, controlled distribution, and periodic updates.

This rail safety plan is intended to support collaboration between local authorities, emergency services, and rail companies, ensuring a coordinated and effective approach to managing rail-related emergencies in Port Hope.

1.0 Introduction

1.1 Purpose of the Rail Safety Plan

The purpose of this rail safety plan is to provide a comprehensive framework for preparing for, responding to, and recovering from rail incidents within the Municipality of Port Hope. This plan serves to achieve the following objectives:

- prevent injuries and save lives
- minimize property damage
- minimize impacts to the local economy
- minimize environmental damage

1.2 Scope of the Rail Safety Plan

This plan addresses all forms of rail incidents that may occur in Port Hope, including but not limited to derailments, hazardous materials spills, and incidents involving passenger and freight trains. It aims to facilitate effective coordination among various stakeholders, including local authorities, rail companies, and emergency services, in managing these incidents efficiently.

1.3 Background

The Municipality of Port Hope is strategically located along major rail lines, which serve as vital transportation routes for both goods and passengers. Given the inherent risks associated with rail transport, including potential incidents involving hazardous materials, it is crucial for the municipality to have a robust emergency management framework in place. This plan is designed to complement existing municipal emergency response plans and ensure that all relevant stakeholders are prepared to respond effectively to rail-related incidents.

1.4 Legislative Framework

This plan is developed in alignment with relevant federal rail legislation, including:

- **Canada Transportation Act (RSC 1996, c. 10):** Governs the regulation of transportation in Canada, including rail transport.
- **Railway Safety Act (RSC 2001, c. 29):** Establishes safety regulations for railway operations, requiring railways to have safety management systems and emergency response plans.
- **Transportation of Dangerous Goods Act (S.C. 1992, c. 34):** Regulates the transportation of dangerous goods by rail and other modes, ensuring safety and environmental protection.

This plan also recognizes the roles and responsibilities outlined in the Emergency Management and Civil Protection Act (R.S.O. 1990, c. E.9), which governs emergency management in Ontario.

1.5 Roles and Responsibilities

Municipality of Port Hope

- Develop and maintain the community's emergency response plan, rail safety plan, and other supporting plans, ensuring alignment with federal and provincial regulations.
- Coordinate training and exercises for local emergency services to enhance readiness for rail incidents.
- Facilitate communication and collaboration among stakeholders during planning and response efforts.

Emergency Services (Fire, Police, EMS)

- Participate in training exercises and drills related to rail incident response.
- Collaborate with rail companies to understand specific risks associated with rail operations in the municipality.
- Provide immediate response services during rail incidents, ensuring public safety and conducting rescues as necessary.

Rail Companies

- Maintain up-to-date emergency response plans and provide training to personnel regarding local emergency procedures.
- Communicate with the municipality regarding rail operations, including hazardous materials being transported and infrastructure changes.
- Engage in joint exercises with local emergency services to ensure effective coordination.

Local Organizations and Community Groups

- Assist in disseminating information to the public regarding emergency preparedness and safety measures.
- Support the municipality in community outreach efforts to raise awareness about rail safety.

2.0 Emergency Preparedness

2.1 Rail Risk Environmental Scan

There are three federally and provincially regulated rail companies that travel through Port Hope daily. These rail companies are Canadian National Railway (“**CN**”), Canadian Pacific Kansas City Railway (“**CPKC**”) and VIA Rail. The CN and CPKC tracks that run through the Municipality of Port Hope are illustrated in Figure 1 below.

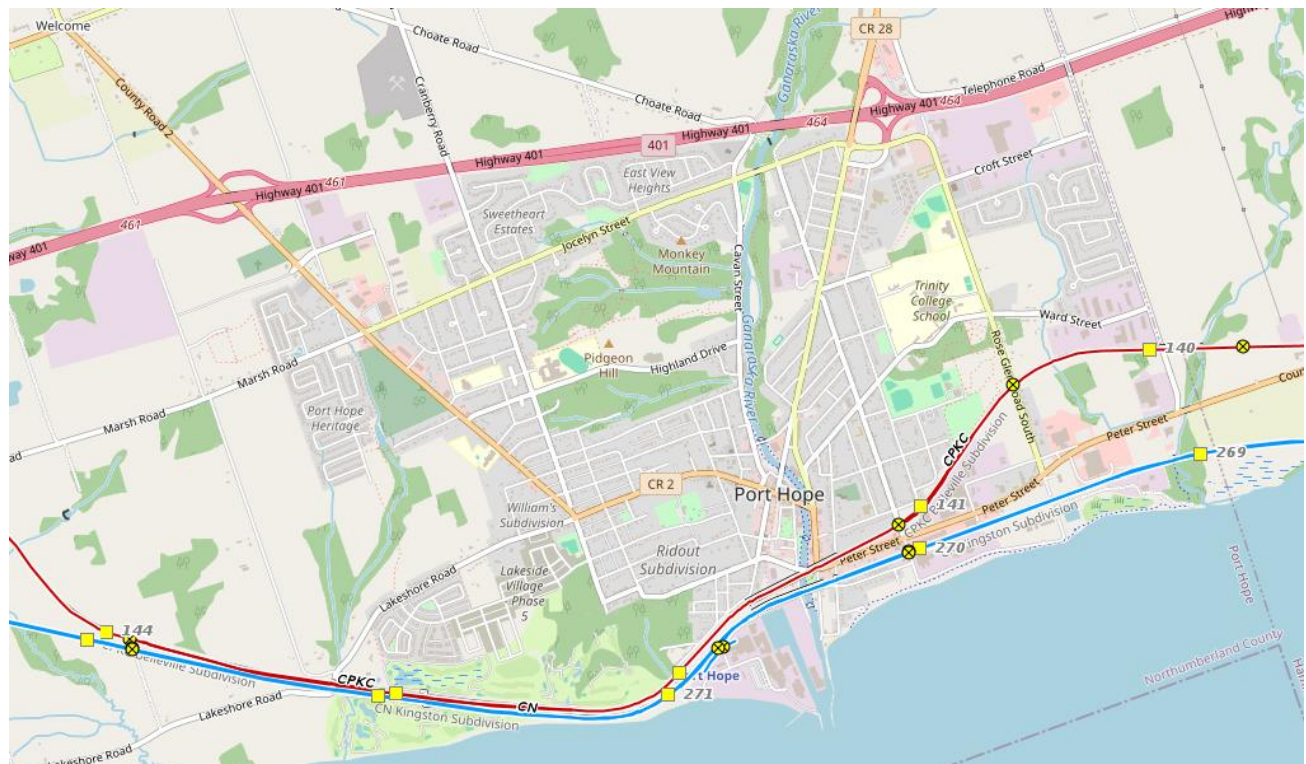


Figure 1. Map of the Municipality of Port Hope with the CN and CPKC tracks.

Rail Infrastructure

- CN Kingston Sub: This line travels east and west through Port Hope and has a two-track system from Baulch Road to Hamilton Road. CN Rail also has a spur line that services Cameco.
- VIA Rail: VIA operates on CN's track and functions under CN's Rail Traffic Control.
- CPKC Belleville Sub: This line has a single-track system from MP 143.3 at Baulch Road to MP 140 at Hamilton Road, including a single-track siding that is 7,013 ft long from MP 144 to MP 142.5.

- CPKC has a single liquefied petroleum gas tank containing propane at both ends of the siding, with a tank capacity of 2,000 gallons, used for switch heaters. The average track speed is 45 to 60 mph (30 mph when temperatures are below -25 Celsius).

Traffic Volume and Commodities

- Train traffic can be expected 24/7, 365 days a year, with an average of 27 trains per day. The majority of these are VIA passenger trains, while the remaining freight trains carry various commodities, including dangerous goods.
- This rail traffic poses a threat to urban areas, villages, hamlets, and agricultural lands.

Local Considerations

- Many CN and CPKC tracks feature steel-trussed bridges, wood ties, and concrete bases along intersecting roadways. Stationary trains could potentially block crossings at locations such as Hope Street and Rose Glen Road, necessitating coordination for response efforts.
- In the event of a rail emergency, both CN and CPKC may need to be notified to slow or halt all train traffic.
- The railway runs close to critical infrastructure, including Lake Ontario and small rivers, increasing the risk of environmental contamination during incidents.

Emergency Contacts

The emergency contact phone numbers for the rail companies are as follows:

- CN Rail: 1-800-465-9239
- VIA Rail: 1-888-842-7245
- CPKC Rail: 1-800-716-9132

2.2 Transportation Safety Board Data

The Transportation Safety Board (“**TSB**”) conducts investigations and releases findings on various types of transportation incidents, including rail incidents. The findings of these investigations are vital for informing future emergency preparedness efforts. Below is a high-level overview of derailments on Ontario mainlines over the last five years.¹

¹ Main-track train derailments by province in December 2023, Transportation Safety Board, 2023. <https://tsb.gc.ca/eng/stats/rail/2023/12/r2023-12-t3.html>

Incident Statistics

- Based on TSB findings, most derailments that occur happen in rail yards at low speeds due to misaligned tracks for the train movements.
- Between 2018 and 2022, Transport Canada reported an average of 81 mainline derailments across Canada each year. Ontario averaged 14 incidents annually, of which approximately three involved dangerous goods.
- In 2022, there were 69 mainline derailments across Canada. Nine mainline derailments occurred in Ontario, with three involving dangerous goods.
- In 2023, there were 55 mainline derailments across Canada. Nine mainline derailments occurred in Ontario, including two involving dangerous goods.

Stakeholder Actions

Local emergency management teams should regularly review TSB reports to identify safety trends, evaluate risk factors, and adjust preparedness measures accordingly.

2.3 Communication Strategies

Various communication strategies should be implemented to support the rail safety plan. These strategies consist of:

Information Sharing

- Establish a communication network among rail companies, local authorities, and emergency services to ensure timely updates regarding rail operations and incidents.
- Utilize digital platforms for real-time information dissemination, including alerts and notifications, to residents in the vicinity of rail operations.

Public Education

- Develop educational materials and campaigns to inform the community about rail safety and preparedness measures, including messaging from the TSB and rail companies.
- Conduct workshops and seminars for community members to enhance awareness of risks associated with rail incidents and effective response actions.

2.3.1 Railroad Safety Messaging

Effective safety messaging is essential for reducing instances of rail-related incidents.

Stakeholders are expected to disseminate and promote various safety guidelines, which cover general rail safety, incident reporting procedures, and additional training and awareness initiatives. Port Hope should consult with rail companies and stakeholders to determine messaging that is best suited to the public.

Public Awareness Guidelines for Rail Safety

These general guidelines are typically distributed to the public to raise awareness of rail safety practices near tracks and rail equipment.

- **Always expect active rail tracks:** Trains or equipment may move on any track, in either direction, at any time.
- **Avoid parking vehicles near tracks:** Vehicles should never obstruct or be too close to the rail lines.
- **Maintain safe distance:** Keep at least 25 feet away from the nearest rail to avoid fouling (obstructing) the track; equipment within four feet of the rail is at immediate risk.
- **Cross carefully:** Use designated grade crossings to ensure safer footing on level ground, avoiding the uneven ballast (crushed rock) used around tracks.
- **Avoid climbing on rail equipment:** Never climb on or walk between railcars. When walking around a car, keep 25 feet from the end, and ensure at least 50 feet of clearance between cars if crossing between them.
- **Be aware of rail hazards:** Rails and ties can be slippery; avoid standing or stepping on them directly and never put your foot between a switch, which may operate remotely.
- **Emergency reporting:** If witnessing an emergency, notify rail personnel or local authorities without obstructing the tracks.

First Responder Rail Emergency Protocols

These specific guidelines are designed for trained emergency personnel and may not be included in public distributions. They detail procedures and risks unique to emergency response near rail tracks and rail equipment.

- **Track and Train Traffic Control**

- Do not approach the tracks or foul the area until receiving rail confirmation that train traffic has been halted. Note that stopping a train may require up to 3.25 kilometres, so responders may need designated lookouts for added track protection.

- **Responding to Locomotive Emergencies**

- If a fire or other emergency occurs on a locomotive, locate and activate the fuel shut-off valve (red button on either side of the locomotive and near diesel tank fill points) to stop the engine. Apply the hand brake and chock wheels as an additional safety measure.
- Be aware of specific hazards associated with locomotives, such as:
 - Battery compartment: Up to 20 litres of acid
 - Diesel fuel: Up to 20,000 litres
 - High-voltage power: Over 6,000 volts of AC and DC
 - Air compressor: 100 PSI

- **Safe Climbing and Equipment Interaction**

- Only climb rail equipment if necessary and apply the hand brake, chock wheels, and use three points of contact. Never jump from rail equipment—descend facing the car and avoid carrying tools; use hoisting methods instead.
- Always block feet and secure ladders when in use to prevent accidental movement.

Rail-Specific Safety Considerations for Elevated Structures and Hazardous Materials

Guidelines in this section are specialized for situations involving infrastructure challenges (such as bridges) or hazardous materials. These protocols may be relevant for first responders and rail personnel only.

- **Bridge and Elevated Structure Emergencies**

- Take extreme caution on elevated tracks or bridges, as these are often not designed for pedestrian access. Consider the following:
 - **Access Coordination:** Identify special needs for Coast Guard, helicopter, or high-angle rescue teams.
 - **Environmental and Infrastructure Impact:** Coordinate pollution control for water bodies, notify downstream communities, and confirm accessibility with rail representatives.

- **Structural Concerns:** Evaluate structural integrity if fire or derailment impacts bridge components or nearby utilities, such as pipelines, electricity, and communications.
- **Response to Hazardous Materials and Stability Risks**
 - **Bent or Stressed Rails:** Be cautious around stressed rail components; stored energy can cause sudden movement.
 - **Tipping Equipment:** Avoid any leaning or tipping equipment, as these may fall or shift unexpectedly.
 - **Hazardous Materials:** Refer to Emergency Response Guidebook (“**ERG**”) guidelines and engage the Canadian Transport Emergency Centre (“**CANUTEC**”) or industrial hygiene experts for situations involving hazardous materials, conducting air monitoring as needed.
- **Additional Structural Factors**
 - **Route Closures and Pollution Control:** Consider rerouting access routes, closing navigable waterway traffic, and using specially equipped boats or barges if water contamination is a risk.
 - **Utility Identification:** Ensure awareness of nearby utilities that may be affected (such as pipelines) and confirm the status of electrical and communications lines along the right-of-way.

Incident Reporting

In any rail-related emergency, timely and accurate incident reporting is essential to ensuring track safety and effective coordination with rail companies.

- When reporting an incident to the rail company provide detailed information, including:
 - contact information
 - incident type
 - location (who, what, where, and why) to get track protection for personal safety
- Do not foul the track until the rail company acknowledges that train traffic has been halted. It can take a train up to 3.25 kilometres to come to a stop, necessitating coordination with lookouts for track protection.

2.4 Preparedness Actions

Preparedness actions can enhance Port Hope's readiness for rail incidents. Actions that Port Hope can take to prepare for rail incidents include:

Training and Exercises

In alignment with the Port Hope Education Plan, the municipality should:

- Conduct regular training sessions for emergency services to familiarize personnel with rail operations and incident response protocols.
- Organize joint exercises with rail companies to simulate rail incident scenarios, allowing stakeholders to practice coordination and response.
- Provide opportunities for community members and organizations to participate in safety workshops to better understand safety guidelines and reduce the risks associated with rail operations.

Risk Assessments

- Perform periodic assessments of rail infrastructure and operations within Port Hope to identify potential risks and vulnerabilities.
- Collaborate with rail companies to implement mitigation measures based on assessment findings.

2.5 Resources for Community Emergency Planning

An effective emergency plan is supported by a variety of resources that can inform and support Port Hope's response to rail incidents involving dangerous goods. The following subsections outline key resources available to local emergency management organizations.

2.5.1 Regulatory Reports

Protective Direction 36

Transport Canada's Protective Direction 36 requires that registered municipalities be provided with dangerous goods reports for Class 1 Canadian railroads on a semi-annual basis. The reports provide information on dangerous goods that are transported through the community by each rail company.

An application can be received by CN and CPKC and then submitted to Transport Canada by the municipality's community emergency management coordinator ("**CEMC**") to receive these reports.

Usage: The reports are a summary of the various commodities and volumes of shipments. The reports should be reviewed frequently by the CEMC to better prepare for potential incidents related to dangerous goods commodities that are being shipped through the community.

2.5.2 Railroad Contingency Plans

CN and CPKC Railroad Contingency Plans

CN and CPKC both have railroad contingency plans that are valuable resources for local emergency services and municipal authorities. These plans provide guidelines to assist in planning for and responding to rail-related incidents.

Usage: Emergency organizations should obtain these plans to understand safe response protocols on railroad property. They include procedures for identifying rail company contacts, notifying them to halt rail traffic, and integrating the rail company's operations into Port Hope's Incident Management System ("IMS") framework.

2.5.3 Response Guides and Applications

Emergency Response Guidebook

The ERG serves as a critical resource for initial response efforts, providing comprehensive information on various commodities, evacuation zones, and recommended response tactics.

Usage: Responders should reference the ERG to ensure they are informed about hazardous materials and can make quick, safe decisions during emergencies.

Ask Rail App

The Ask Rail app provides emergency responders with immediate access to accurate and timely data regarding hazardous materials in railcars.

Usage: This app enables responders to make informed decisions based on real-time information about hazardous materials, thereby enhancing situational awareness and safety.

NFPA HAZMAT Flic

NFPA HAZMAT Flic is an app that provides the on-scene Incident Commander guidance for high-hazard flammable trains ("HHFT") and liquid petroleum pipeline emergencies.

Usage: NFPA HAZMAT Flic provides a size-up checklist, guidance documents, and additional resources to support effective incident management.

2.5.4 Emergency Response Assistance

Emergency Response Assistance Plans

Emergency response assistance plans assist local responders in the event of a release or anticipated release of high-risk dangerous goods during transport.

Usage: Plan numbers and activation contact details can be found on train documents, such as compressed waybills. Responders should familiarize themselves with these plans to ensure timely and effective action in emergencies involving dangerous goods.

Canadian Transport Emergency Centre

Operated by Transport Canada, CANUTEC serves as an advisory resource for incidents involving dangerous goods.

Usage: This centre provides valuable response resources, including safety data sheets (“**SDS**”), which can aid responders in managing hazardous situations effectively. Responders should utilize CANUTEC for expert advice and information during dangerous goods incidents.

3.0 Emergency Prevention

Prevention strategies are crucial for Port Hope and the rail companies operating within its jurisdiction. By emphasizing proactive measures, both the municipality and the rail companies can work collaboratively to mitigate risks associated with rail incidents, ensuring the safety of residents and infrastructure. This section outlines key strategies and technologies that enhance rail safety and prevent incidents before they occur.

3.1 Proactive Inspections and Analytics

Rail companies have significantly improved their ability to detect mechanical issues through enhanced inspections and advanced analytics. Technologies such as wayside detectors are strategically placed along the rail lines to monitor the health of rail cars and infrastructure. These detectors scan each car, identifying overheated bearings, predicting wheel bearing failures, and assessing wheel life. Cars flagged with defects are reported, allowing for timely repairs. If necessary, defective cars can be set off the train at a siding for maintenance, minimizing the risk of incidents. Specific inspections include:

- **Track Inspections:** Tracks are inspected three times a week, ensuring continuous monitoring of rail integrity.
- **Bridge Inspections:** Bridges are inspected regularly by the rail company's engineering department and occasionally by contracted engineering professionals to ensure structural stability.
- **Train Inspections:** Each train undergoes inspections by onsite personnel and conductors daily. Additional scanners along the tracks, including one on the west side of Port Hope and another in Grafton, detect anomalies or excessive heat in wheel sets and bearings.

Municipal Role: The municipality can support these initiatives by facilitating communication between rail companies and local emergency services, ensuring that critical safety information is shared effectively.

3.2 Infrastructure Monitoring and Maintenance

In addition to new technology, rail companies employ inspectors and engineers to actively monitor, repair, and replace track infrastructure, ensuring stability and safety. Engineering machinery equipped with advanced technology scans tracks for unlevel surfaces, loose ties, rail cracks, and gauge issues. Identified deficiencies are addressed swiftly to maintain a reliable rail system.

Municipal Role: The municipality can collaborate with rail companies to integrate infrastructure updates into local emergency response plans, ensuring that emergency services are aware of any track repairs or changes that could impact response efforts.

3.3 Fire Risk Mitigation

During fire seasons, fire risk mitigation plans are implemented to prevent potential fires. This includes ensuring that wildland firefighting equipment is on all trucks and that crews performing hot work are equipped with suppression equipment. Adhering to fire watch protocols following hot work is critical to ensuring that any fire risks are effectively managed.

Municipal Role: The municipality can enhance fire risk mitigation efforts by working with rail companies to develop joint training exercises for emergency responders, focusing on wildfire response and rail-related incidents.

3.4 Emergency Response Programs

Rail companies are required to maintain an emergency response program tailored to the specific risks associated with their operations. These programs typically follow a tiered response approach, allowing for tailored responses based on the level of risk involved in an incident.

Municipal Role: The municipality should work closely with rail companies to ensure that emergency response plans are compatible and integrated with local emergency management frameworks, promoting a coordinated response to rail incidents.

4.0 Emergency Response

4.1 Initial Detection

The initial detection of a rail incident can occur through various means, such as reports from rail company monitoring systems, community members, or emergency services.

If CPKC and CN are first made aware of an incident or if there is a prolonged event of level rail crossings being obstructed, the respective rail provider will contact emergency services.

Dispatch will then notify the appropriate fire department to advise.

Protocols should be established for monitoring potential incidents and communication channels should be maintained with rail companies to receive alerts quickly.

It is important that the agency that receives the report assesses the initial information and deploys resources effectively to support the response.

Local resource assignment will be dependent on the location of the incident.

Figure 2 identifies the rail crossings and responding fire station for each fire response zone across Northumberland County.

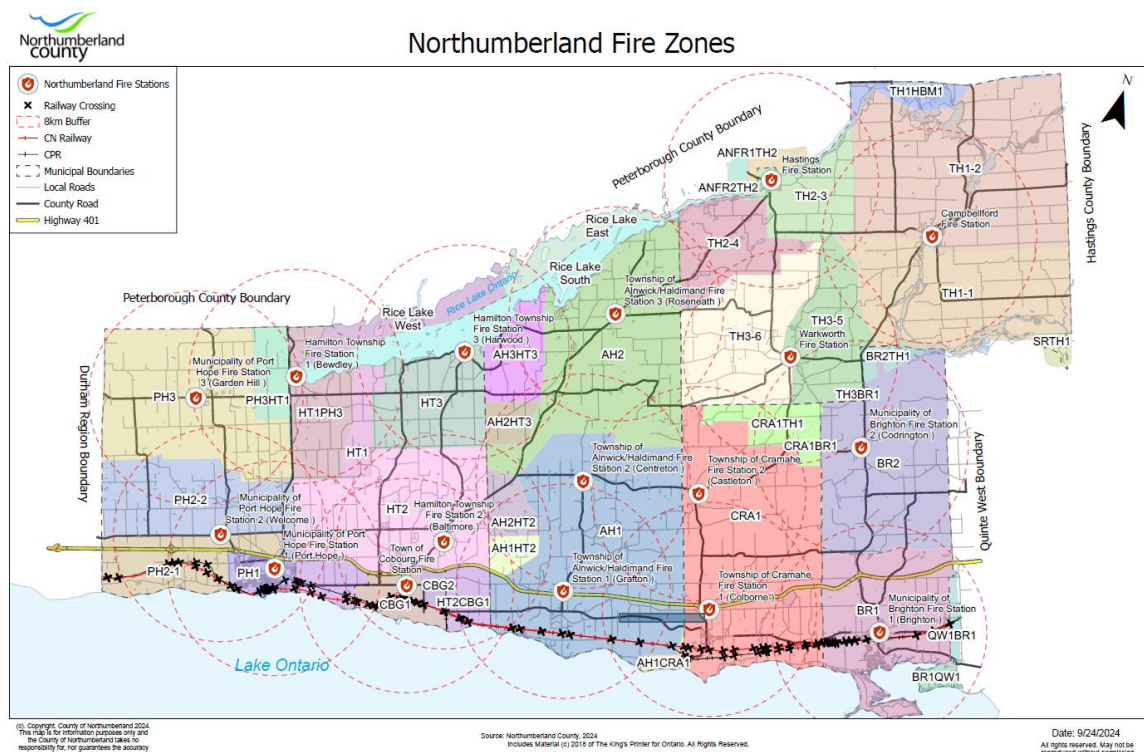


Figure 2. Map of fire response zones and rail crossings in Northumberland County.

Figure 3 identifies rail crossings throughout Port Hope and initial responding fire stations for each fire response zone.

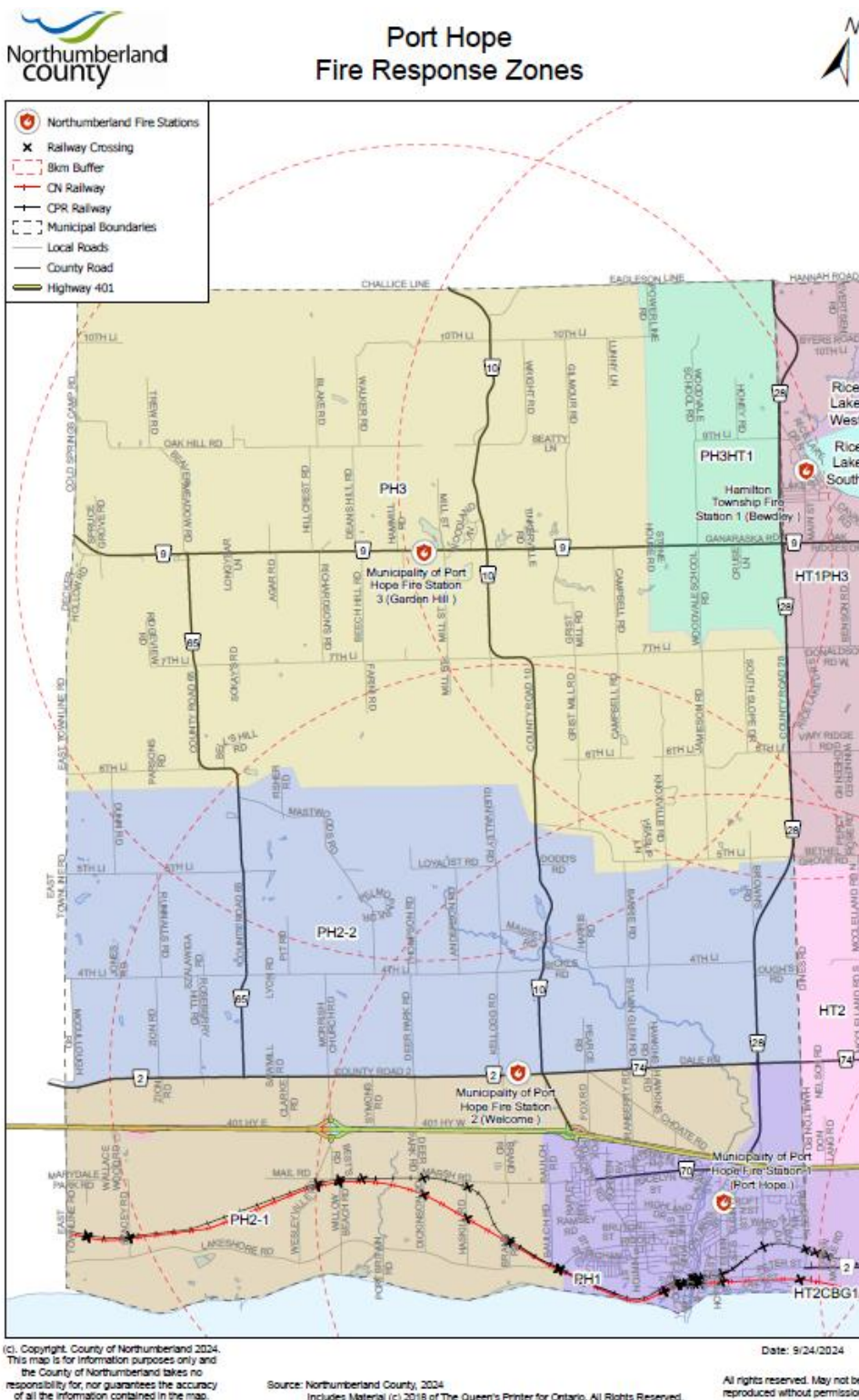


Figure 3. Map of the fire response zones and rail crossings in Port Hope.

4.2 Notification

Port Hope should maintain direct communication lines with rail companies and ensure that the emergency contact numbers for CN and CPKC are readily accessible to first responders. Upon detection of any incident on rail property, the relevant authorities should be notified.

Notify the appropriate rail company's emergency line with your name, agency, location, and the nature of the incident (such as derailments, product releases, crossing accidents, vehicles stuck on tracks, or fires).

Use geographical markers such as milepost markers on the mainline track or signage at public grade crossings or bungalows to pinpoint incident locations.

For any incidents involving passenger trains, notify the rail company that owns the track as it is the controlling authority. Once notified, representatives from the controlling authority rail company and VIA will respond to an incident and provide needed services and resources. Coordination of passenger evacuations might be necessary.

Once the rail company is notified of an incident, a computer-aided dispatch entry will be initiated with an alert that is sent to all managers. On-call personnel will be called to respond to the event if necessary.

The rail company will make initial notifications to Transport Canada and the Ministry of Environment, if necessary, and will update them with any pertinent information throughout the event. Representatives from each organization may attend the incident to oversee activities and approve plans.

4.3 Situational Awareness and Scene Assessment

Situational awareness is a crucial component of effective emergency response. It involves gathering, interpreting, and maintaining a real-time understanding of the incident and its potential impacts. For municipalities, situational awareness ensures that response teams have the information they need to make informed decisions, protect the public, and coordinate resources efficiently.

The rail company and the municipality must work together to continuously assess and monitor the situation, ensuring that all relevant information about the incident is collected and communicated.

Establish Initial Awareness

- Quickly gather information regarding the type of rail incident (such as derailment, collision, or hazardous material release) and the exact location of the event.

- Verify details about the railcars involved (passenger, freight, or those transporting dangerous goods) to assess potential risks.
 - Use visible mile markers, crossing signs, or GPS coordinates to pinpoint the exact location.

Train Crew Interaction and Information Gathering

- If available, the train crew (typically consisting of an engineer and conductor) can provide critical information and the train consist, which lists all commodities on board.
 - Note that the conductor cannot give away their paper copy of the train consist, but it can be reviewed by first responders.
 - First responders may receive a copy of the train consist immediately if the conductor has a digital copy of the train consist.
 - The train crew may also be able to assist in separating unaffected cars from the incident to eliminate other potential exposures.
- First responders should document all shared details to understand the nature of the cargo and potential hazards.
- In situations where the train crew cannot be located, are injured, or are unresponsive:
 - Update the rail company immediately to initiate alternative methods of obtaining train details and assess the crew's condition.
 - Utilize available resources, such as the Ask Rail app, to access the train consist and other critical data quickly.

Municipal Coordination and Resource Allocation

- Municipal officials should deploy appropriate resources based on the information gathered, ensuring they align with the severity and scale of the incident.
- Collaborate with rail company representatives to continuously update the status of the train crew and the commodities involved, enabling coordinated and informed decision-making.

Integration with Rail Company's Incident Management

- Ensure that the rail company is integrated into the municipal response framework, providing situational updates and coordinating resource mobilization.
- It is important to note that most rail providers will operate off an incident management approach consistent with the Incident Command System ("ICS") and the United States Coast Guard Incident Management Handbook.

- See Figure 4 for an example of CN's ICS unified command structure and Figure 5 for CPKC's ICS unified command structure.
- Confirm that all incident details are being shared across agencies (such as Transport Canada and the Ministry of Environment) as needed.

The priority of first responders should be to protect themselves and the public first.

Responding agencies need to be aware of the following safety considerations:

- Do not park near the track or approach the track until receiving confirmation that train traffic is stopped and track protection is given by the rail company.
- Remember that trains can come at any time, from any direction, on any track. It can take a train up to 3.25 kilometres to come to a safe stop.

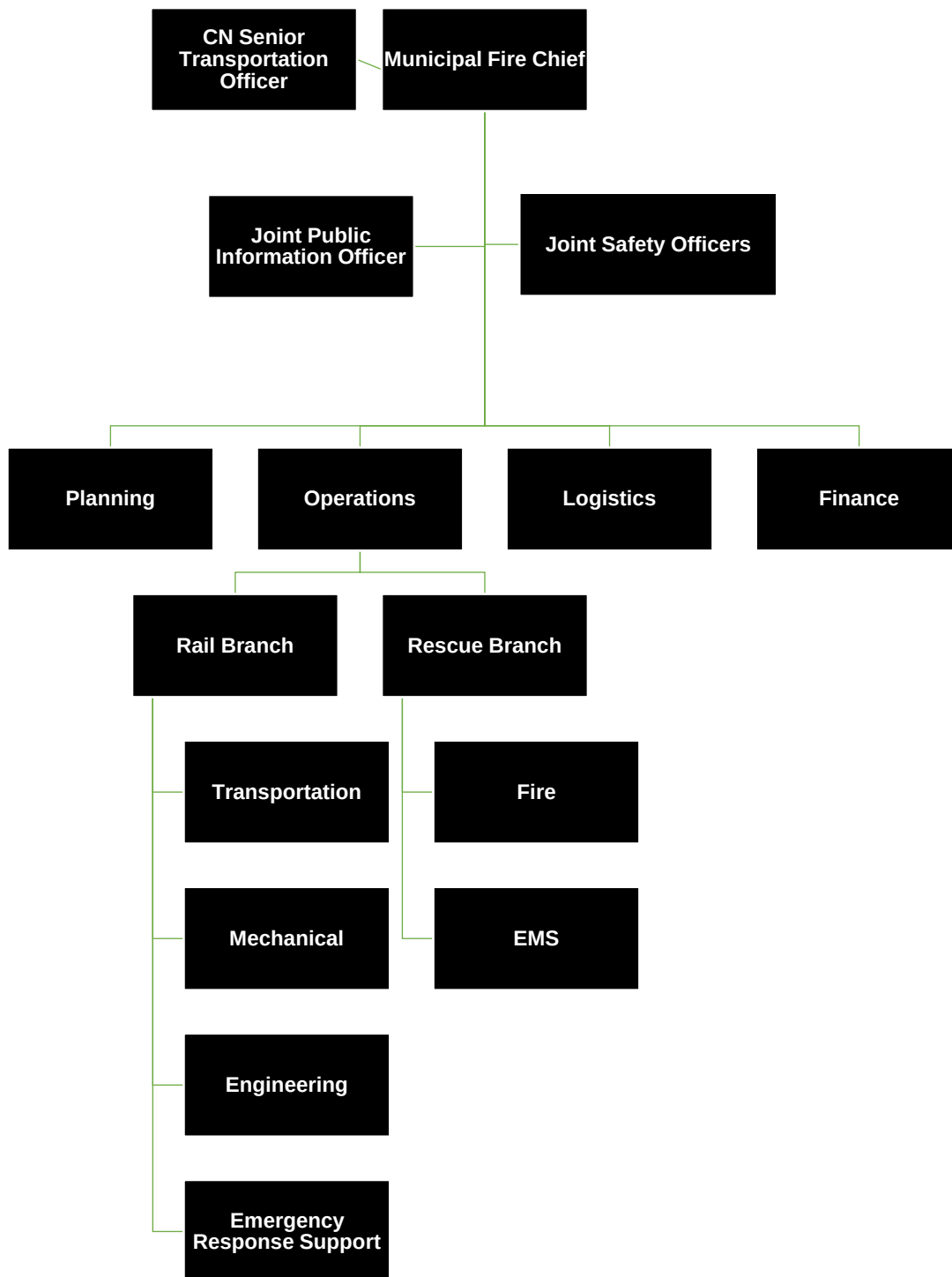


Figure 4. Diagram of the CN ICS unified command structure.

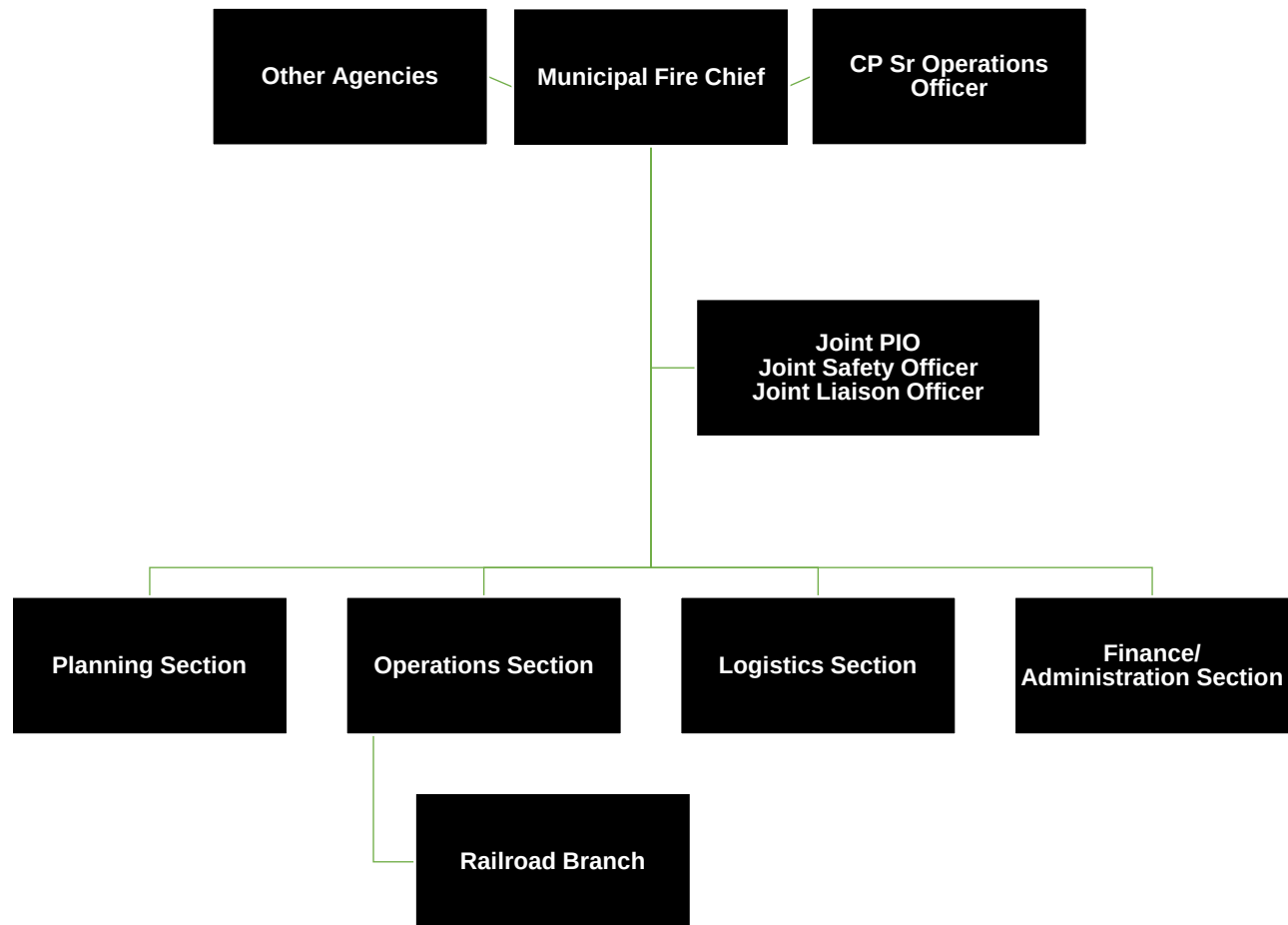


Figure 5. Diagram of the CPKC ICS unified command structure.

Scene Assessment

Understand any dangerous goods commodities that might be on fire, spilled, or have the potential to have a greater impact in an incident to determine response strategies (such as non-intervention, defensive, or offensive).

Scene assessment should be conducted initially from a safe distance, upwind and uphill. Any incident should be treated as an immediately dangerous to life or health environment until it can be ruled out.

Use binoculars or drones to identify car numbers and other pertinent information, such as hazardous classes and UN numbers on placards, to assess damage to containers, or identify if there are any leaks or fires that may exist. Use air monitors to establish hazard zones and thermal imagers for heat impacts to containers.

It is also beneficial to identify the total number of cars directly involved in the incident, including the first and last car involved.

Draw a map or get imagery that identifies the location of the cars and whether the cars or containers are upright or on their sides, leaking or on fire.

Look at containers to see whether they are damaged or in unusual condition, such as showing signs of excessive heat or signs of frost.

Identify any other hazards nearby, such as buildings, structures, and utilities. Utilities such as communication lines are often buried along the right-of-way of the track. Hydro lines or pipelines could also be in the vicinity or sometimes may even cross underneath the track. Derailments can directly impinge on these utilities. Look for any pipeline markers in the area and determine what kind of commodity is carried through the pipeline. Be aware of any hissing sounds, pools of liquid, or odors indicating a release of substances and contact the owner of the pipeline or other utility.

If there are any dangerous goods identified as being involved in the incident, it is important to refer to the ERG for initial response tactics and to get the potential evacuation zones. SDS can be requested by the railroad, shipper, or CANUTEC to get accurate information pertaining to a commodity. The NIOSH Guide can also be used to research the specifics of a commodity.

The rail company will also report the incident to the TSB and CANUTEC (if dangerous goods are involved) and periodic updates will be given with a follow-up report. The Ministry of Environment will also be notified if there are any spills or releases. Any other government agencies affected will also be notified.

4.4 Secure and Contain

Secure the area by establishing hazard zones (hot, warm, and cold). Consider weather, wind, topography, waterways, and the populated areas that may be affected to determine evacuation process or a shelter-in-place. Consider notifying members of the public who may be affected by hazards such as air quality or contaminated waterways.

The police service, provincial police, rail police, EMS, and public utilities can be utilized for assistance in evacuations, scene security, triage, and road closures. Use all resources available for a safe and efficient resolution to the response. If an evacuation is warranted, please refer to the Port Hope Evacuation Plan.

Railroads have their own police services that employ commissioned police officers that have the same authority as every other police officer in Canada. Officers and investigators will respond to an incident.

A public information officer should be utilized to filter necessary information so that the public feels safe. Coordinate messaging within the unified command structure that has been established.

First responders should try containing, damning, diking, or diverting any spills, if possible, to further prevent further environmental impacts. The Coast Guard may be needed for large spills effecting large waterways.

4.5 Command and Control

Incident Command should be established as early as possible when responding to the incident. This will allow responders to coordinate resources, achieve response objectives, and help to ensure a safe and secure response. The rail company's most senior representative on the scene will act as a representative within the Incident Command structure to assist the incident management team with the response.

Responders should determine available resources needed for the incident and public safety. Incident Command should only tackle objectives that are attainable and can be handled by the experience level of what responders are trained to do. Update the railway company on conditions so it can contribute resources. The railway company can start responding to the incident to stabilize, recover, and remediate the incident.

An incident action plan should be prepared as well as any other applicable IMS forms for each operational period. The incident action plan should be approved by Incident Command. Incident Command should also participate or be briefed in the railway company's pre-planning for operational period approvals.

4.6 Derailment Specific Responses

Derailment Involving Non-Dangerous Goods

In the event of a derailment involving non-dangerous goods, rail company management and staff from various departments will respond to the incident to re-rail, inspect, and repair infrastructure to safely move trains again. Rail company personnel include those from departments such as mechanical, engineering, signals and communications, and various contractors necessary for a response.

Environmental contractors will respond in the event that there is any spilled material and restoration is needed at the incident or in the community.

A third-party consultant would be on scene to document the event and oversee any environmental soil and water impacts and restoration needed. Personnel from the rail company's environmental department would also be present.

The affected area will be restored its state prior to the incident with notifications and approval from the Ministry of Environment.

Derailment Involving Dangerous Goods

In the event of a derailment involving dangerous goods, the above-mentioned departments would respond, as well as HAZMAT officers and HAZMAT contractors with emergency response equipment used to mitigate an incident. This would include any fire suppression that may be needed as well as any chemical releases or any potential release to the environment from any damaged containers.

Environmental engineers would also be onsite to provide air monitoring for the safety of all personnel working on the scene as well as setting up area monitors within the community if needed.

Technical advisors, such as industry experts, shippers, and manufacturers can be utilized for support and their expertise on specific commodities.

The rail company will get locates and may have affected utility companies on scene in the event of any disruption or damage to utilities.

4.7 General Response

The railway company will have a safety talk with personnel working on the scene at the beginning of each shift. This ensures that all personnel are aware and updated of any hazards that they may be exposed to. Tasks will be assigned to personnel based on the operational objectives to be achieved.

Staff will be briefed on all the tasks that each of the other teams are assigned and any isolated areas to avoid. All personnel onsite need to sign in and out daily for accountability purposes. Minimum PPE required when on rail property includes safety boots, a safety vest, safety glasses, and a hard hat to be worn at all times. Additional PPE will be required depending on the risks and job tasks.

If there are live tracks and potential for train traffic, there must be a flag person available and onsite to provide track protection for all personnel working onsite. No one will work outside of the protected work area. The flag person will give notice to all personnel of when train traffic is to be expected, and no one is to foul the track until cleared to do so by the flag person.

During re-railing operations, there are many pieces of heavy equipment in the area used to move or lift cars. Personnel should avoid these areas as the operators have obstructed views from their cabs. If personnel need to access the area, they need to account for the overswing of equipment, make eye contact with the operator of the equipment, and signal for approval to proceed if safe to do so. It is important that they do not walk under suspended loads and stay clear of them.

Once it is safe to do so, engineering, track, and signals departments of the rail company will begin to rebuild infrastructure to restore the track. Once track restoration is complete, inspected train operations may resume.

Once protective actions have been initiated, rail company personnel and contractors will take actions to prevent, mitigate, or minimize the threat posed by the incident. In determining the appropriate extent of the action to be taken at a given release or spill, a preliminary assessment of current conditions must be undertaken.

The following factors should be considered in determining the appropriate mitigating actions:

- Exposure to products which may pose environmental, health, or safety hazards to nearby populations, animals, food chains, or sensitive resources.
- Contamination of drinking water supplies and other socio-economic resources.
- Potential impacts to cultural resources.

HAZMAT officers and environmental officers from the railway company will continue to assist in the incident and help coordinate hazardous materials and dangerous goods response activities. The response will be coordinated with the local fire chief as well as local, provincial, and federal agencies until the response is de-activated.

Contractors of the railway company will remain on scene with fire suppression personnel, transfer equipment, boats, booms, and skimmers if needed throughout the response. Additional equipment may also include storage containers, drones, and communications equipment.

Incident management trailers may be onsite and trained rail personnel or contractors that have expertise in incident management may assist with preparing incident management documentation.

Industrial hygiene contractors with expertise in toxicology will be onsite to oversee the air monitoring and risk assessments in guidance with OSHA. Plume modelling will also be provided.

Railway companies have established geographic response plans for impacted water bodies across the railroad network to deploy pre-determined resources at certain access points to effectively contain, divert, and capture product at certain points in affected waterways.

5.0 Emergency Recovery

5.1 Remediation

The collection, storage, transport, treatment, and disposal of wastes generated during a spill cleanup can require a significant logistical effort and must be managed in compliance with federal, provincial, and local regulations.

Whenever possible, attempt to salvage or recycle commodities recovered and materials generated during response efforts to reduce waste quantities that go to landfills. Materials that cannot be recycled may include hazardous and non-hazardous wastes such as oily or contaminated soil and oily water, that will be discarded and removed through approved waste haulers and facilities that handle these wastes. All waste will be documented and copies of BOLs and manifests will be sent to the Ministry of Environment.

Remediation of an incident consists of actions such as groundwater monitoring, ground and water restoration, landscaping, and environmental monitoring.

Property will be restored as much as possible to pre-emergency conditions.

Remediation is complete when the affected stakeholders and the Ministry of Environment are satisfied with the goal of meeting the needs of the impacted community.

5.2 Demobilization of Resources

Once the incident response objectives have been achieved, a demobilization plan will be created and implemented. This can include the release of incident response personnel, equipment, and other resources from the incident scene, as required. However, periodic environmental monitoring may still be active until all expectations from the impacted community and the Ministry of Environment have been met and all containment resources have been discarded of.

5.3 Accident Investigation

All incidents shall be investigated to determine the root cause and contributing factors. The operations, mechanical, and engineering officers will conduct the investigation. The TSB may also conduct an investigation with a follow-up report released.

5.4 Debriefing and After-Action Reporting

When deemed appropriate by senior company officers an incident debrief with representation from all responding organizations and agencies will be carried out.

The debrief is intended to identify lessons learned to improve the response to future incidents. The debrief may cover the following topics:

- a discussion of the incident
- the factors involved in the incident
- the dangerous goods or hazardous materials involved in the incident
- the response actions taken
- whether the existing procedures and resources functioned as expected
- improvements to procedures and resources
- additional training needs
- additional equipment needs
- additional communications needs

All lessons learned should be captured in an after-action report for the purpose of reporting to senior and elected officials as required, including any recommendations made for future implementation.

6.0 Resources

6.1 Training

- CN Railroad Incident Response Online Course. CN. Available at: <https://www.cn.ca/en/safety/moving-dangerous-goods/>
- CN Railroad Equipment Online Course. CN. Available at: <https://www.cn.ca/en/safety/moving-dangerous-goods/>
- Canadian Emergency Response to Flammable Liquid Incidents in Transport (CERFLIT) Level 1 Training. Canadian Association of Petroleum Producers and Canadian Association of Fire Chiefs. Available at: <https://rail.capp.ca/>

6.2 Documentation (Plans and Guides)

- 2024 Emergency Response Guidebook. Transport Canada. Available at: <https://tc.canada.ca/en/dangerous-goods/canutec/emergency-response-guidebook>
- Canadian Transport Emergency Centre (Online). Transport Canada. Available at: <https://tc.canada.ca/en/dangerous-goods/publications/canutec-canadian-transport-emergency-centre>
- Canadian Rail Atlas (Online). Railway Association of Canada. Available at: <https://rac.jmaponline.net/canadianrailatlas/>
- Community Emergency Planning Guide, Edition 5. CKPC, March 2024. Available at: <https://www.cpkcr.com/en/safety/hazmat-safety/emergency-planning-guides>
- Customer Safety Handbook. CN, January 2024. Available at: <https://www.cn.ca/en/customer-centre/safety-guidelines-and-regulations>
- Field Guide to Tank Cars, Fourth Edition. CN, 2022. Available at: <https://www.cn.ca/-/media/files/delivering-responsibly/safety/field-tank-car-guide-en.pdf>
- Integrated Contingency Plan: Emergency Preparedness and Response, Revision 2. CP, October 2022. Available at: <https://www.cpkcr.com/en/safety/hazmat-safety/emergency-planning-guides>
- High Hazard Flammable Trains (HHFT) On-Scene Incident Commander Field Guide. Fire Protection Research Foundation, 2016. Available at: <https://www.cn.ca/-/media/files/delivering-responsibly/safety/rfhft-onscene-field-guide.pdf>
- Overview of Protective Direction No. 36 (Online). Transport Canada. Available at: <https://tc.canada.ca/en/dangerous-goods/overview-protective-direction-no-36>
- Railroad Emergency Preparedness Guide, Dangerous Goods Awareness Level. CN. Available at: https://rail.capp.ca/en/story_content/external_files/CN-Railroad-Emergency-Preparedness-Guide-en.pdf

- You're Not Alone! Emergency Response Planning for Rail Incidents Involving Flammable Liquids (Online). Transport Canada. Available at: <https://tc.canada.ca/en/dangerous-goods/safety-awareness-materials-faq/first-responders/you-re-not-alone-emergency-response-planning-rail-incidents-involving-flammable-liquids>

6.3 Applications

- AskRail App. Available at: <https://askrail.us/>

7.0 Plan Administration

7.1 Plan Maintenance and Review

This plan will be reviewed and updated regularly to incorporate new technologies, best practices, and legislative changes. Stakeholder feedback, lessons learned from incident responses, and any changes in local demographics or infrastructure will be considered in the review process to ensure the plan remains effective and relevant.

7.2 Plan Distribution

This rail safety plan for the Municipality of Port Hope will be distributed to key stakeholders involved in emergency preparedness and response for rail incidents. This controlled distribution ensures that relevant parties have access to the most current and comprehensive procedures and information.

The following agencies and individuals will receive copies of this plan:

- Port Hope’s CEMC
- Municipal Administration and Key Departments (such as Public Works and Communications)
- Port Hope Fire and Emergency Services
- Port Hope Police Service
- EMS

7.3 Revision Control

The record of plan revisions is identified below in Table 1.

Table 1. Record of plan revisions.

Version	Date	Author
Version 1.0	January 27, 2025	The Loomex Group