

Forward

The Community Risk Assessment (C.R.A) has been developed for the Town of Minto to comply with Ontario Regulation 378/18: Community Risk Assessments (O. Reg 387/18). O. Reg 378/18 was made under the authority of the Fire Protection and Prevention Act, 1997 (F.P.P.A) and came into effect on July 1st, 2019. It requires all municipalities in Ontario to develop a C.R.A prior to July 1, 2024. This regulation also requires municipalities to “use its community risk assessment to inform decisions about the provisions of fire protection services.”

The community risk assessment will be a valuable tool that will help inform the development of the Master Fire Plan. The CRA is however, a stand-alone document that will be reviewed and updated annually or as circumstances change.

The methodology and analysis utilized to develop this C.R.A has been directly informed by O.F.M.E.M T.G.-02-2019, which recognizes the value of understanding the fire risk within a community, and the importance of developing fire risk reduction and mitigation strategies in addition to providing fire suppression services.

The primary purpose of the C.R.A is to identify fire related risks and make decisions on how to deal with the identified risks.

Methodology

As required by O. Reg 378/18, this C.R.A includes a comprehensive analysis of the nine mandatory profiles including:

1. Geographic Profile
2. Building Stock Profile
3. Critical Infrastructure Profile
4. Demographic Profile
5. Public Safety & Response Profile
6. Community Services Profile
7. Hazard Profile
8. Economic Profile
9. Past Loss & Event History Profile

The mandatory profile analyses result in a series of risk related conclusions that will be used to inform service levels or other strategies in alignment with the three lines of defense through a risk treatment process. These findings will be referred to as “identified risk” throughout the document. All fire risk-related conclusions will be taken through a risk treatment process and aligned with Ontario’s “three lines of defense” fire protection strategy. The three lines of defense are: public education, enforcement and fire suppression.

Nine Profiles of Community Risk

Geographic Profile

Overview

The geographic profile includes physical features of the community that impact the risk of and response to fire and other emergencies in the community. This can include large bodies of water, highway/road networks, waterways, railways, bridges and wildland-urban interfaces.

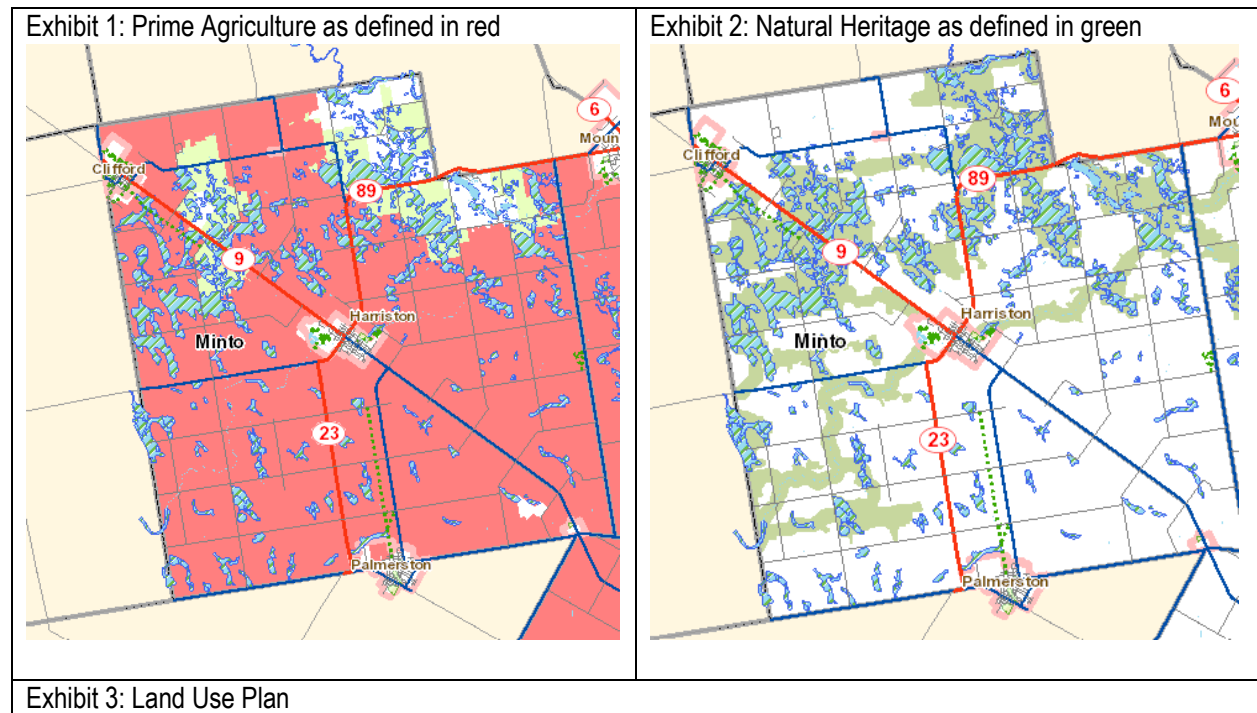
The Town of Minto is one of seven municipalities in the County of Wellington. The Town of Minto is bordered by the Township of Wellington North, the Township of Mapleton, the Township of Howick and the Municipality of West Grey.

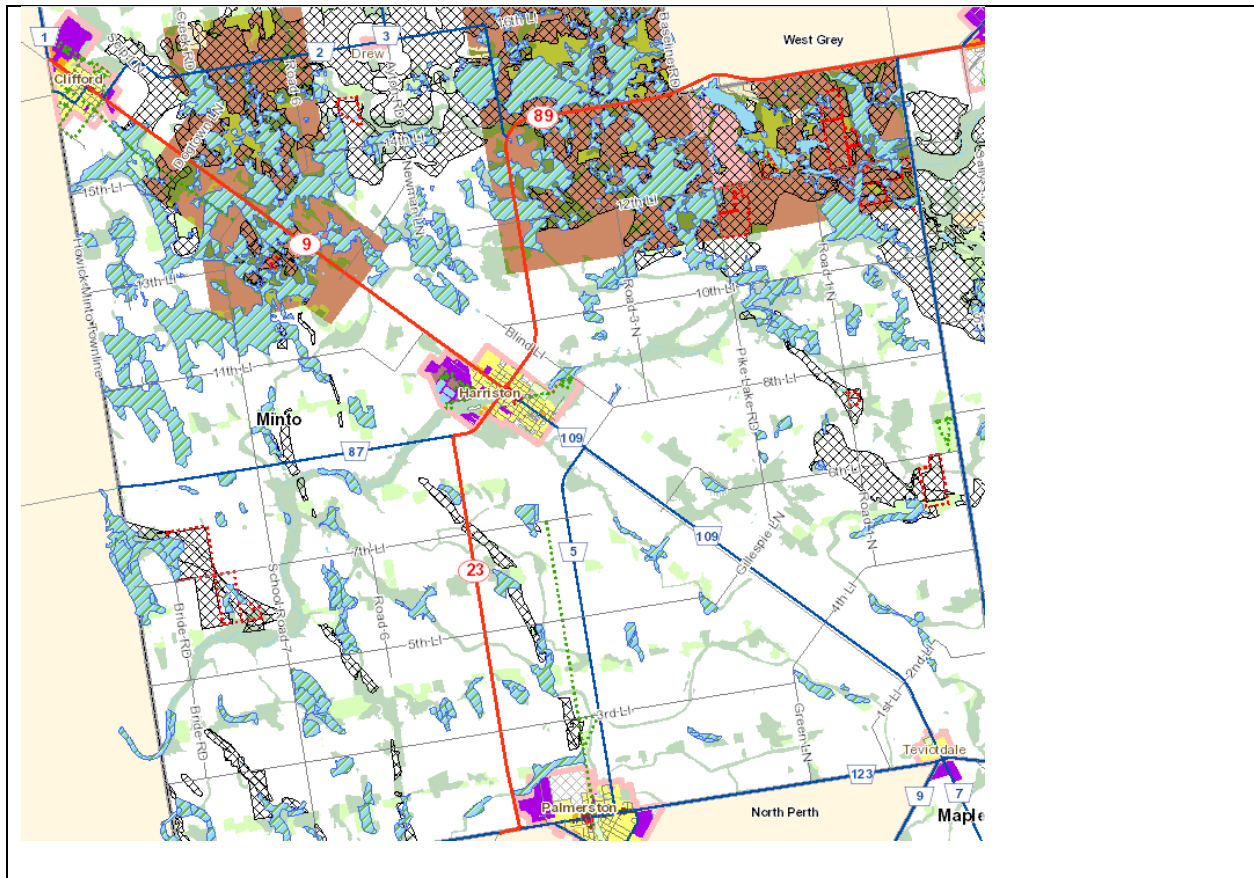
The land area of the Town of Minto is 300.19 square kilometers, this excludes any aid coverage agreements. The large geographic emergency area can have a direct impact on travel time for MFD, some areas being a 12km response. As the Town continues to grow and becomes increasingly more densely populated, MFD may wish to consider partnerships with local developers to construct homes with residential sprinklers or at the very least, develop a communications strategy to communicate with new home builders about the benefits of home fire sprinklers. Residential sprinklers are an effective strategy to reduce the spread of fire until suppression crews arrive on scene.

Identified Risk: The large geographic coverage area may have a direct impact on travel time by MFD.

The land in Minto is primarily agricultural lands mixed with natural heritage features protected by local conservation authorities.

Identified Risk: Inaccessible and unidentified rural properties can cause delayed response times by MFD.





Settlements & Communities

There are 3 communities located within the Town of Minto. These include Clifford, Harriston and Palmerston. There are also smaller communities which include Cotswold, Drew, Fultons, Glenlee, Greenbush, Teviotdale and White's Junction.

Roads, Transit & Bridges

Roads and transportation systems provide fire and emergency services with access throughout the community when responding to incidents. Road networks can also contribute to vehicle congestion causing delays in emergency response travel times.

When possible, the Town's transportation planning processes should include MFD as a stakeholder to provide consideration to emergency services needs and challenges relating to the road network, traffic congestion, and initiatives such as traffic calming.

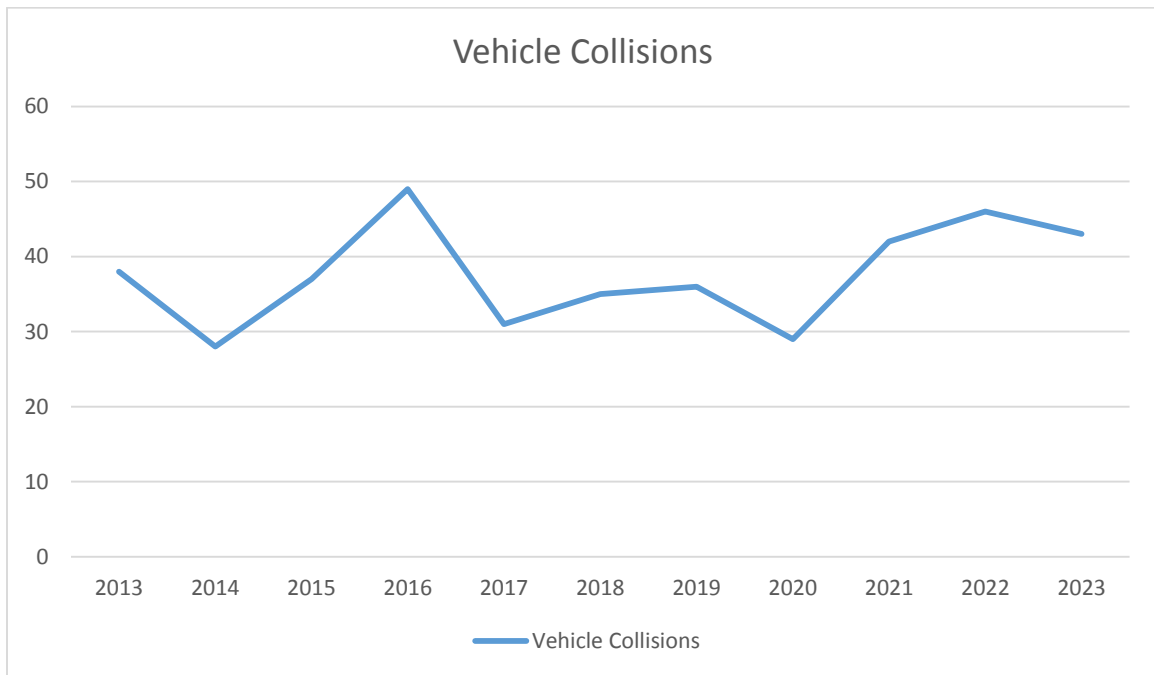
Major roads and highways within the Town of Minto include:

- King's Highway 9, Ontario 9 is a provincially maintained highway in the Canadian province of Ontario.
- King's Highway 89, Highway 89 is a provincially maintained highway in the Canadian province of Ontario.
- King's Highway 23, commonly referred to as Highway 23 is a provincially maintained highway in the Canadian province of Ontario.

- Wellington County Roads:
 - Wellington Rd 109
 - Wellington Rd 87
 - Wellington Rd 1
 - Wellington Rd 2
 - Wellington Rd 3
 - Wellington Rd 4
 - Wellington Rd 5
 - Wellington Rd 6
 - Wellington Rd 123

The presence of major highways and transportation routes have the potential for transport incidents involving dangerous goods. Agriculture and industry increases the volume of large transport trucks and tractors in and through the towns. These areas should be given consideration as an incident involving dangerous goods being transported through one of the downtown cores could occur.

Roads are also important from a risk perspective because motor vehicle related incidents are often a common source of emergency call volumes. Motor vehicle collisions account for approximately 15% of MFD call volumes over the 10-year period.



Currently, there are no public transit systems located in the Town of Minto.

Identified Risks:

- 1. Highway 9 is a significant corridor for beach goer and cottage traffic during the summer months which can increase motor vehicle collisions and the related traffic congestions can slow down response times.*
- 2. Some highways are significant corridors for the transportation of dangerous goods which can lead to hazmat related incident within the Town of Minto.*
- 3. MVCs makeup a significant portion of call volumes for MFD.*

Bridges

Bridges are considered within a C.R.A. for two main reasons: the potential for crossing restrictions for fire apparatus due to weight (i.e. load restrictions); and potential for impact on road network connectivity in the event that a bridge is out of service. This could result in the potential for delays in emergency response times. The Town of Minto has the following bridges with weight restrictions:

- Wellington-Grey Boundary, Town of Minto | McMullen Bridge
- Wellington-Grey Boundary, Town of Minto | Flax Bridge

Waterways & Conservation Authorities

Waterways are important from a risk perspective, in part, due to the recreational activities that take place in these settings and the natural hazards that they present, which could require specialized technical rescue emergency responses which we do not offer at this time. There may also be natural hazards, such as flooding, associated with waterways

Pike Lake

Covering more than 500 acres, a golf resort encompasses a mile-long spring fed lake with a private beach.

Maitland River

The Maitland River is a river in Huron County, Perth County, and Wellington County in Southwestern Ontario. The river is in the Great Lakes Basin and empties into Lake Huron at the Town of Goderich. It is 150 kilometres long. The river begins in Arthur in Wellington North. It flows west into the municipality of Minto and its main centre, the community of Harriston, with its triple junction of Ontario Highway 9, Ontario Highway 23 and Ontario Highway 89. The river continues west into the municipality of Howick, Huron County. The Maitland River is a huge flood risk for the Town of Harriston, having flooded historically in 2008 and 2017.

Lakelet Lake

Lakelet Lake is spring fed, with depths down to over 40 feet with the size of the lake being 28.1ha. Lakelet is located within the Township of Howick, however is in the coverage are of MFD.

The Town of Minto falls within the jurisdiction of the Maitland Valley Conservation Authority as well as the Saugeen Valley Conservation Authority.

Wildland-Urban Interface

Minto is primarily a rural area with multiple types of forests; however the forests are dispersed amongst agricultural land. There is a risk of wildfires; more so grass and field fires which could have an impact on the agricultural community.

Another strategy that Minto has already implemented to mitigate the risk is an open air burn bylaw and burn permitting system.

Identified Risk: The geography of the Town of Minto includes a large number of areas where there is wildland-urban interface which presents the potential for a wildland fire.

Building Stock Profile

Overview

The building stock profile includes analysis of the types and uses of the building stock within the municipality. Important considerations include the number of buildings of each type, the number of buildings of each use and any building-related risks known to the fire service. There are potential fire risks associated with different types or uses of buildings given the presence or absence of fire safety systems and equipment at the time of construction and maintenance thereafter. This section considers these building stock characteristics within the Town of Minto.

Major Building Occupancy Classification

The O.B.C. is divided into six major building occupancy classifications (groups). Within each group the occupancies are further defined by division. The O.B.C. major building occupancy classification groups and divisions are presented in Table 1.

Table 1: O.B.C. Major Building Occupancy Classifications

Group	Division	Description of Major Building Occupancy Classifications
Group A	1	Assembly occupancies intended for the production and viewing of the performing arts
Group A	2	Assembly occupancies not elsewhere classified in Group A
Group A	3	Assembly occupancies of the arena type
Group A	4	Assembly occupancies in which occupants are gathered in the open air
Group B	1	Detention occupancies
Group B	2	Care and treatment occupancies
Group B	3	Care occupancies
Group C	---	Residential occupancies
Group D	---	Business and personal services occupancies
Group E	---	Mercantile occupancies
Group F	1	High-hazard industrial occupancies
Group F	2	Medium-hazard industrial occupancies
Group F	3	Low-hazard industrial occupancies

Occupancy Fire Related Risks & Risk Reduction Strategies

The Fire Risk Sub-model developed by the O.F.M.E.M. utilizes the major building occupancy classifications (i.e. Group A, B, C, D, E and F), but does not use the detailed division classifications as included in the O.B.C. This strategy provides the ability to assess buildings within a community comparatively by major occupancy groups, thus providing a consistent and recognized definition for each major occupancy type. This strategy provides the opportunity for further analysis of a specific occupancy group. Subject to any site-specific hazards or concerns, occupancies within this group can be assessed individually and then included where required within the scope of the broader Community Risk Assessment. The O.F.M.E.M. Fire Risk Sub-Model O.B.C. classifications, definitions and associated fire-related risks are presented below along with potential proactive measures to reduce risk within these occupancy types.

Group A – Assembly Occupancies

An assembly occupancy is defined as one that is used by a gathering of persons for civic, political, travel, religious, social, educational, recreational or like purposes or for the consumption of food or drink.

O.F.M.E.M Fire Related Risks	Proactive Measures for Reducing Risk
<p>Assembly buildings are often occupied by a large number of people and may contain high quantities of combustible furnishings and decorations. Occupants are generally unfamiliar with the building’s exit locations and may not know how to react in the event of an emergency. Low light conditions are inherent to some of these occupancies and can contribute to occupant confusion during an evacuation. Many examples exist of disastrous events that occurred worldwide, resulting in multiple fire fatalities in these occupancies.</p> <p>Therefore, these facilities require special attention. Accordingly, it is paramount to ensure that maximum occupant load limits are not exceeded, detection is available, an approved fire safety plan is in place and adequate unobstructed exits/means of egress is readily available.</p>	<ul style="list-style-type: none"> • Regular fire prevention inspection cycles • Automatic fire detection and monitoring systems • Approved fire safety plan and staff training • Pre-planning by fire suppression staff

Group B – Care or Detention Occupancies

A care or detention occupancy means the occupancy or use of a building or part thereof by persons who:

- Are dependent on others to release security devices to permit egress;
- Receive special care and treatment; or
- Receive supervisory care.

O.F.M.E.M Fire Related Risks	Proactive Measures for Reducing Risk

<p>In addition to the presence of vulnerable occupants, these occupancies may contain quantities of various flammable/combustible liquids and gases, oxidizers and combustible furnishings that will impact the intensity of the fire if one should occur. The evacuation or relocation of patients, residents or inmates to an area of refuge during an emergency poses additional challenges in these facilities. It is essential to ensure that properly trained staff is available and prepared to quickly respond according to the facility's approved fire safety plan.</p>	<ul style="list-style-type: none"> • Regular fire prevention inspection cycles • Automatic fire detection and monitoring systems • Approved Fire Safety Plan and staff training • Pre-planning by fire suppression staff
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Group C – Residential Occupancies

A residential occupancy is defined as one that is used by persons for whom sleeping accommodation is provided but who are not harboured or detained to receive medical care or treatment or are not involuntarily detained.

O.F.M.E.M Fire Related Risks	Proactive Measures for Reducing Risk
<p>In Ontario, residential occupancies account for 70% of all structural fires and 90% of all fire deaths. Residential units that are located in multi-unit buildings, including secondary units in a house, pose additional risks due to egress and firefighting accessibility challenges.</p>	<ul style="list-style-type: none"> • Home smoke alarm programs • Public education programming including home escape planning • Retro-fit and compliance inspection cycles for O.F.C. compliance • Pre-planning by fire suppression staff • Fire Drills as required by the O.F.C.

Group D – Business & Personal Services

A business and personal services occupancy is defined as one that is used for the transaction of business or the rendering or receiving of professional or personal services.

O.F.M.E.M Fire Related Risks	Proactive Measures for Reducing Risk
<p>Many office buildings are occupied by a large number of people during business hours and contain high combustible</p>	<ul style="list-style-type: none"> • Regular fire prevention

<p>content in the form of furnishings, paper, books, computers and other office equipment/supplies. Those that are located in a high-rise building pose additional risks due to egress and firefighting challenges.</p>	<p>inspection cycles to maintain O.F.C. compliance</p> <ul style="list-style-type: none"> • Targeted fire prevention inspections for O.F.C. retro- fit compliance • Staff training in fire prevention and evacuation procedures • Public education programs • Pre-planning by fire suppression staff
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Group E – Mercantile

A mercantile occupancy is defined as one that is used for the displaying or selling of retail goods, wares or merchandise.

O.F.M.E.M Fire Related Risks	Proactive Measures for Reducing Risk
<p>Larger mercantile occupancies such as department stores are generally occupied by a large number of people and contain high quantities of combustibles in the form of merchandise, furnishings and decorations. Customers may be unfamiliar with the building’s exit locations and not know how to react in the event of an emergency. Additional hazards will be present in “big box” type stores that sell and store large volumes of combustible materials in bulk. These stores generally have similar properties to industrial warehouses with the additional hazard of higher number of occupants.</p>	<ul style="list-style-type: none"> • Regular fire prevention inspection cycles • Automatic fire detection and monitoring systems • Approved Fire Safety Plan and staff training • Pre-planning by fire suppression staff

Group F – High/ Medium/ Low Hazard Industrial

O.F.M.E.M Fire Related Risks	Proactive Measures for Reducing Risk
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<p>These occupancies constitute a special fire hazard due to the high levels of combustible, flammable or explosive content and the possible presence of oxidizing chemicals and gases within them. Processing and other activities that involve various ignition sources often occur in these occupancies. The lack of security during non-operational hours also makes them susceptible to incendiary type fires. Industrial fires generally involve large quantities of combustible materials and potentially result in large financial losses (e.g. building, contents) and significant damage to the community's environment and economic well-being (e.g. loss of jobs).</p>	<ul style="list-style-type: none"> • Regular fire prevention inspection cycles • Staff training in fire prevention and evacuation • Public education • Pre-planning by fire suppression staff • Installation of early detection systems (e.g., fire alarm systems, heat detectors) • Installation of automatic sprinkler systems • Approved Fire Safety Plans • Preplanning by fire suppression staff • Fire extinguisher training
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Other Properties

In addition to gathering information on building related risks, attention should also be given to other property types, particularly those that contain large quantities of combustible materials. Propane storage facilities, outdoor tire storage yards, grasslands/forests, plastic recycling depots are examples of properties that could severely impact a community and its environment if involved in a fire. Major highways and railway lines used to transport high volumes of traffic and perhaps large quantities of hazardous chemicals also warrant sincere consideration.

Building Stock - Minto

This document utilizes Municipal Property Assessment Corporation (M.P.A.C) property parcel stock to inform its building stock data.

Existing Property Stock

O.B.C Major Building Occupancy Classifications	Number of Occupancies	Percentage of Occupancies
Group A - Assembly	27	< 1%
Group B – Care or Detention	4	< 1%
Group C - Residential	3534	74%
Group D& E – Business & Mercantile	259	5%

Group F – Low Hazard Industrial	55 (all industrial)	1%
Farm	630	13%
Vacant (Residential/Commercial/Industrial)	295	6%
Total:	4804	100%

This analysis confirms that Group C - Residential Occupancies represent the most prominent type of building occupancy type within Minto. For the five-year period from January 1st, 2014 to December 31st, 2018 the Group C- Residential Occupancies accounted for 72.19% of the structure fires in Minto. Similar historical data provided by the O.F.M.E.M. indicates that the majority of structure fires within Ontario also occurred in group C-Residential Occupancies.

Identified Risk: Group C – Residential Occupancies represent the largest number of buildings in Minto which increases prominence of fires.

Residential Building Stock Comparison

Structural Dwelling Type	Town of Minto		Ontario	
	Total Dwellings	Total % Dwellings	Total Dwellings	Total % Dwellings
Single-detached house	2 680	78%	2 942 990	54%
Apartment in a building that has 5+ storeys	5	0.5%	984 665	18%
Movable dwellings	75	0.2%	14 985	0.3%
Semi-detached house	120	4%	303 260	6%
Row house	110	3%	505 265	9%
Apartment or flat in a duplex	35	1%	181 030	3%
Apartment in a building that has fewer than 5 storeys	380	11%	548 785	10%
Other single-attached house	10	0.5%	10220	0.2%
Total	3 415	100%	5491200	100%

i(statcan, 2023)

Identified Risks:

1. *Apartment Buildings are on the increase*
2. *Accessory Dwelling Units are on the increase*
3. *Single-detached houses make up the largest number of residential dwellings*

Building Density & Exposure

N.F.P.A. 1730 Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations (2019 Edition) lists building density as a key factor for understanding potential fire related risk with particular consideration given to core areas (downtown) of a municipality. Closely spaced buildings, typical of historic downtown core areas and newer infill construction, may have a higher risk of a fire spreading to an adjacent exposed building. In a built up area with minimal building setbacks, a fire originating in one building could extend

to a neighbouring structure due to the close proximity. The close proximity of buildings can also impede firefighting operations due to the limited access for firefighters and equipment.

Most of the existing property stock in Minto is single-detached houses spread over a large geographic area, therefore building density remains low throughout the Town. However, as the Town grows there are more residential developments being built with higher density housing. MFD should continue to monitor and advise the town’s future planning on any new high-density developments to help mitigate fire risk and exposures.

Current Identified High-Density Areas

1. Clifford Downtown Core
2. Harriston Downtown Core
3. Palmerston Downtown Core
4. Medium Density Residential
 - a. Maitland Meadows, Harriston
 - b. Bridge Crescent, Palmerston
 - c. Prospect, Derby & Raglan Streets, Palmerston
 - d. Braymark Developments, Palmerston
 - e. Harriston Heights, Harriston
 - f. Field of Dreams, Clifford
5. Pike Lake Golf Centre Seasonal Campground (May to Oct)
6. Fairway Estates, Pike Lake

Identified Risk: Group C – Residential Occupancies represent the largest number of buildings in Minto which increases prominence of fires.

Identified Risk: As the Town of Minto continues to grow and build developments that are more densely populated, both fire exposures and fire risks will increase.

Building Age and Construction

Occupied Private Dwellings by Period of Construction

Time Period	# of Dwellings
1960 or Before	1 370
1961 to 1980	675
1981 to 1990	345
1991 to 2000	300
2001 to 2005	220
2006 to 2010	125
2011 to 2015	135
2016 to 2021	240
Total:	3415

Identified Risk: 59.8% of the Town’s residential building stock was built prior to the adoption of the Ontario Fire Code and as such represents a higher fire risk because of its age.

Building Height and Area

Buildings that are taller in height, or contain a large amount of square footage (building footprint) can have a greater fire loss risk and life safety concern. One of the unique characteristics and risks of tall / multi-storey buildings is known as the “stack effect”. This is characterized as vertical air movement occurring throughout the building, caused by air flowing into and out of the building, typically through open doors and windows. The resulting buoyancy caused by the differences between the indoor/outdoor temperature and elevation differences causes smoke and heat to rise within the building. This can have a dramatic effect on smoke permeation throughout the common areas and individual units within the building. This can be directly related to the high percentage of deaths that occur in high-rise buildings as a result of smoke inhalation.

The nature of taller buildings also brings the presence of higher occupant loads and higher fuel loads due to the quantity of furnishings and building materials.

Efficient evacuation can also be a challenging process due to a lack of direction, signage, knowledge, or familiarity of the occupants which may result in overcrowding of stairways and exit routes.

Ensuring all required fire and life safety systems are in place and functioning is a priority for these occupancies. Taller buildings can experience extended rescue / fire suppression response times for firefighters to ascend to the upper levels. This is commonly referred to as “vertical response” representing the time it takes for firefighters to gain entry into the building and ascend to the upper floors by the stairwells. Options such as “shelter-in-place” whereby occupants are directed by the fire department to stay within their units can be an effective life safety strategy. However, ensuring internal building communications systems are in place and functioning is critical to the success of this strategy. Targeted public education campaigns addressing strategies like shelter-in-place are also critical to educating building occupants.

Building area can cause comparable challenges as those present in taller buildings. Horizontal travel distances rather than vertical can mean extended response times by firefighters attempting rescue or fire suppression activities in buildings with a very large footprint.

The Town of Minto does not have any building that meets the O.B.C. definition of a high-rise building with a floor level 18 metres (59 feet).

Minto’s Inventory of Apartment Buildings

Clifford
20 Allan Street West
3-7 Allan Street East
2-6 Elora Street North
18-20 Elora Street South
23 Queen Street West
5 James Street

Harriston
175 Webb Street
51 John Street South
38 Young Street West
Palmerston
273 Main Street East
243 Main Street East
213 Main Street East
370 Nelson Street
120 Inkerman Street
270 Mary Street
260 Mary Street
310 Brunswick Street
210 Main Street East
121 William Street
170 William Street
225 Bell Street
250 Daly Street
320-350 Derby Street
360 Derby Street
212 Whites Road

Building Area

Building area can cause comparable challenges as those present in taller buildings. Horizontal travel distances rather than vertical can mean extended response times by firefighters attempting rescue or fire suppression activities. Large buildings, such as industrial plants and warehouses, department stores, and big box stores, can also contain large volumes of combustible materials. In many of these occupancies the use of high rack storage is also present. Fires within this type of storage system can be difficult to access and may cause additional risk to firefighter safety, due to collapse-related risks.

Building Size (Square Feet)	# of Buildings	% of all Buildings
0-5000	3626	92.9%
5000-10000	182	4.6%
10000-20000	59	1.5%
20000-50000	30	0.7%
50000 +	2	0.05%

Identified Risk: The Town has two buildings with a total building area over 50,000 square feet: Hammond Manufacturing and TG Minto.

Potential High-Fire Risk Occupancies

Potential high-fire risk occupancy is another factor for consideration within a community's building stock. High fire risk can be linked to factors such as building density (exposures), building age, and construction. Fuel load typically refers to the amount and nature of combustible content and materials within a building. This can include combustible contents, interior finishes as well as structural materials. Combustible content tends to create the greatest potential fire loss risk. Higher fuel loads results in increased fire loss risk due to increased opportunity for ignition and increased fire severity. In many communities' large amounts of fuel load can be contained within a single occupancy, such as a building supply business, within a large multi-unit residential building, or within a historic downtown core. Buildings with potential concerns are presented below:

Facility Name	Address	Risk Description
Midwest Co-op	56 Margaret St S, Harriston	Propane & Fertilizer
Brett Young Seeds	Mill St, Clifford	Agricultural Supplier
B E Grein Lumber	Hwy 9, Clifford	Lumber Supplier
W C Smith Wholesale	111 Elora St, N, Clifford	Fireworks & Wholesale
Farm Fresh Poultry	191 John St, N, Clifford	Poultry Processing
TG Minto	300 Toronto St, Palmerston	Autoparts Manufacturing
Hammond Manufacturing	215 Minto Rd, Palmerston	Electrical Components
Tucker Industries	135 Minto Rd, Palmerston	Industrial Building
Tri-Coat Woodfinishing Ltd	300 Minto Rd, Palmerston	Furniture Finishing
Trusscore	140 Minto Rd, Palmerston	Plastic Wall Finishes
Speare Seeds Harriston	99 John St, N, Harriston	Grass Seed
Rolling Acres Grain Inc.	6180 5 th Line	Grain Elevators
Harriston Agromart	6308 Wellington Rd. 109	Fertilizer/Pesticides

In addition to ensuring compliance to the requirements of the O.B.C. and the O.F.C., there are operational strategies that a fire service can implement to address fuel load concerns. These include regular fire inspection cycles and pre-planning of buildings of this nature to provide an operational advantage in the event of fire.

Occupancies with Potential High Fire Life-Safety Risk

Fire risk does not affect all people equally. Those who are at an increased risk of fire injury or fatality are known as vulnerable individuals. In the event of a fire, these individuals may be unable to self-evacuate and/or require assistance in their evacuation efforts. Identifying the location and number of vulnerable individuals or occupancies within the community provides insight into the magnitude of this particular demographic within a community.

From an occupancy perspective, vulnerable occupancies contain vulnerable individuals who may require assistance to evacuate in the event of an emergency due to cognitive or physical limitations, representing a potential high-life safety risk. As part of its registry of vulnerable occupancies, the

O.F.M.E.M. defines vulnerable occupancy as any care occupancy, care and treatment occupancy, or retirement home regulated under the Retirement Homes Act.

These occupancies house individuals such as seniors and people who require specialized care. It is important to note, however, that not all vulnerable individuals live in vulnerable occupancies; for example, some seniors who are vulnerable due to physical limitation can live on their own or in subsidized housing making them a key demographic to reach.

Registered Vulnerable Occupancies:

Property Name	Occupancy Type	Location
Caessant Care Harriston	Retirement Home	24 Louise St, Harriston
Royal Terrace Nursing & Retirement	Retirement Home	600 White's Rd, Palmerston
Palmerston District Hospital	Palmerston District Hospital	500 White's Rd, Palmerston
Hamilton's Hometown Retirement	Retirement Home	294 Elora St S, Harriston

Identified Risk: The Town of Minto has 4 registered vulnerable occupancies.

Other High Fire Life Safety Risk Occupancies

From the perspective of risk, and for the purposes of the services provided by the fire services, including enhanced and targeted fire inspections and public education programming, it can be valuable for a fire department to identify additional potential high fire life-safety risk considerations, including day care facilities and schools, where due to their age, children may have cognitive or physical limitations to preventing or delaying self-evacuation in the event of an emergency. For the purposes of this C.R.A., potential high life-safety risk occupancy considerations include schools and licensed day care facilities. MFD identified 3 public schools, 2 private schools, and 2 day care facilities within the Town of Minto.

Identified Risk: It is unclear how many parochial and Amish schools are located within the Town of Minto as there is not registry for these schools.

Property Name	Location
Minto- Clifford Public School	Harriston
Palmerston Public School	Palmerston
Norwell DSS	Palmerston
Harriston Preschool	Harriston
Palmerston Childcare & Learning Centre	Palmerston
Owl's Nest Alternative School	Harriston
Clifford Amish Parochial School #1	5129 15 th Line, Clifford
Clifford Amish Parochial School #2	5691 14 th Line, Clifford
Cedarvale Christian School	5405 11 th Line, Harriston
Glennlee Parochial School	6644 6 th Line, Harriston
Lakelet Parochial School	44736 Glenannon Rd 1, Clifford
Maple Lane School	45262 Saled Rd, Clifford

McIntosh Valley School	9 Sideroad 5, Clifford
Minto Meadows Parochial	6497 10 th Line, Harriston

Historic or Culturally Significant Buildings

An understanding of the location of historic or culturally significant buildings or facilities is an important consideration within the building stock profile of a Community Risk Assessment. Such buildings or facilities may be keystone features to the community that provide a sense of heritage, place, and pride and act as tourism destinations which could result in an economic impact in the case of a fire loss.

Historic areas can present a high fire risk due to age, the materials used to construct the buildings, exposure to other buildings, and importance to the community. Regular fire inspection cycles and strategies to enforce continued compliance with the O.F.C. are considered as best practices to achieving the legislative responsibilities of the municipality and providing an effective fire protection program to address fuel load risks.

The Town of Minto does not maintain an inventory of properties of cultural heritage value or interest.

Identified Risk: The Town of Minto may want to collect data surrounding cultural heritage value or interest within the Town.

Critical Infrastructure Profile

As referenced in O. Reg. 378/18, the critical infrastructure profile assessment includes analysis of the capabilities and limitations of critical infrastructure, including electrical distribution, water distribution, telecommunications, hospitals and airports. The following section considers these critical infrastructure characteristics within the Town of Minto.

Identified Critical Infrastructure	C.I Sector	Fire Related Issues/ Concerns
Water Towers, Reservoir, Pumping Station	Food & Water	Water systems are owned and provided by the Town of Minto. Water supply is an essential component of firefighting and is accessible to the fire department through hydrant systems. A water supply shortage or damage to the distribution system could impede the fire department's ability to effectively fight fire.
Sewage Pumping Station	Food & Water	Potential for contaminated water or spread of disease with untreated sewage on a local level.
Hydro	Electricity	Electricity is provided by Westario Power and Hydro One. Firefighter safety considerations when responding to a fire at an electrical substation (e.g. high voltage electrical hazards and the presence of chemical hazards that are used to cool electrical conductors) Disruption to the electrical distribution system can disrupt communications, cause food spoilage, close

		local business, prevent the use of medical devices and have other potential impacts on public health
911 Communication & Tower Sites	Telecommunications	911 communications infrastructure is significant to fire department operations. If wires or towers are compromised, the ability to communicate with emergency personnel could be extended.
Major Highways	Transportation	There are a couple of provincial highways in Minto. Highways are of concern due to the following factors: <ul style="list-style-type: none"> • Hazardous materials transport • Motor vehicle collisions • Traffic hazards (distracted drivers, high speed movement) present safety considerations for responding crews
Fire & Emergency Services	Public Safety & Security	There are 3 fire stations in Minto, one OPP detachment and one Ambulance Station.
Emergency Operations Centre	Public Safety & Security	There is both a primary and secondary emergency operations centre. During an emergency situation that requires activation of the EOC, fire department personnel may be required to fill key positions within the EOC.
Victim Services Guelph – Wellington	Public Safety & Security	Victim Services are a public safety response safety infrastructure that is able to assist fire department personnel in a collective emergency response. They may be able to provide victims of a fire with several support systems.
Long-term Care	Health	Long-term care facilities as critical health care infrastructure. A fire at a long-term care facility would require complex evacuation procedures for a large number of cognitively and physically dependent individuals.

For a complete overview of the Critical Infrastructure, please refer to Appendix 1

Water Infrastructure

Minto's water infrastructure includes a municipal water system including fire hydrants predominantly located in the urbanized areas of the Town. Water supply as a critical infrastructure is essential for firefighting and can be accessible to a fire department through a municipal water delivery system, or by the fire department itself through the utilization of water tankers. A water supply shortage or water system disruption could impede the flow rate of water delivered to hydranted areas resulting in inadequate water supply and distribution needed for the delivery of fire protection services.

Where no municipal water systems exist, supplementary water supply sources are considered. It is a common occurrence for rural and undeveloped areas, not to have pressurized water supply systems

including fire hydrants. The majority of fire hydrants are located in the urbanized areas, however, a large portion of the Town does not have access to a municipal water system and fire hydrant protection.

Fire Hydrant Locations

Alternate water supply sources can include fire department access to ponds, streams and alternative water supplies, and the use of fire suppression apparatus that have portable tanks that can support a tanker shuttle and a continuous supply of water to support fire suppression activities. According to the Fire Underwriter’s Survey, an Accredited Superior Tanker Shuttle Service is a recognized equivalent to a municipal fire hydrant protection system if it meets all the requirements for accreditation. In areas without municipal water supply, a fire department should consider a water servicing strategy or formal plan for those areas requiring water flow for firefighting.

Research indicates that there is not a complete list of water sources within the Minto data sets, however collection of such data could be a consideration for the future.

Identified Risk: Lack of data surrounding water sources in the municipality.

Airports

There are no airports located within the Town of Minto.

Demographic Profile

As referenced in O. Reg. 378/18, the demographic profile assessment includes analysis of the composition of the community’s population, respecting matters relevant to the community such as population size and dispersion, age, sex, cultural background, level of education, socioeconomic make-up and transient population. The following sections consider these demographic characteristics within the Town of Minto.

Population Growth

From 2016 to 2021, the population grew by 4.9% from 8671 to 9094. The population density per square kilometre is 30.3. Minto’s population is projected to grow to approximately 15 200 by 2051 (Wick-Graham, 2024).

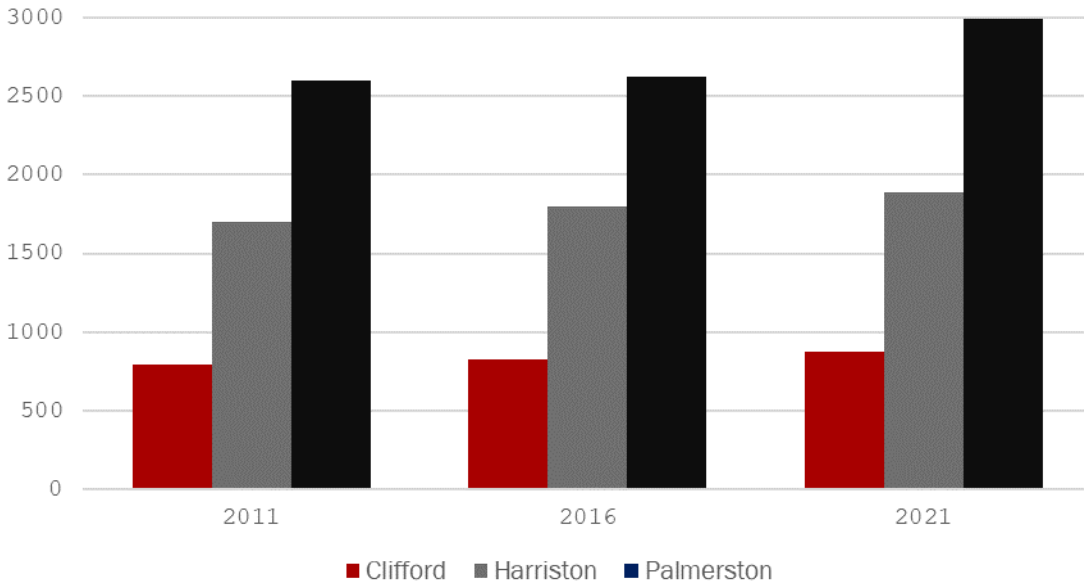
Historic Population Growth

Figure 1

Year	Population	% Change
2006	8504	
2011	8334	-2
2016	8671	4
2021	9094	4.9

The 2021 Census report shows the population of Minto to be 9094, a 4.9% increase from 2016. 32.8% reside in Palmerston, 20.7% in Harriston and 9.6% in Clifford.

Population Growth by Community



The chart pictured above shows the population growth for Minto's three communities over a ten-year period. In the last five years, Clifford's population has grown 6.3%, Harriston's 5.0% and Palmerston has seen the most growth at 13.9%.

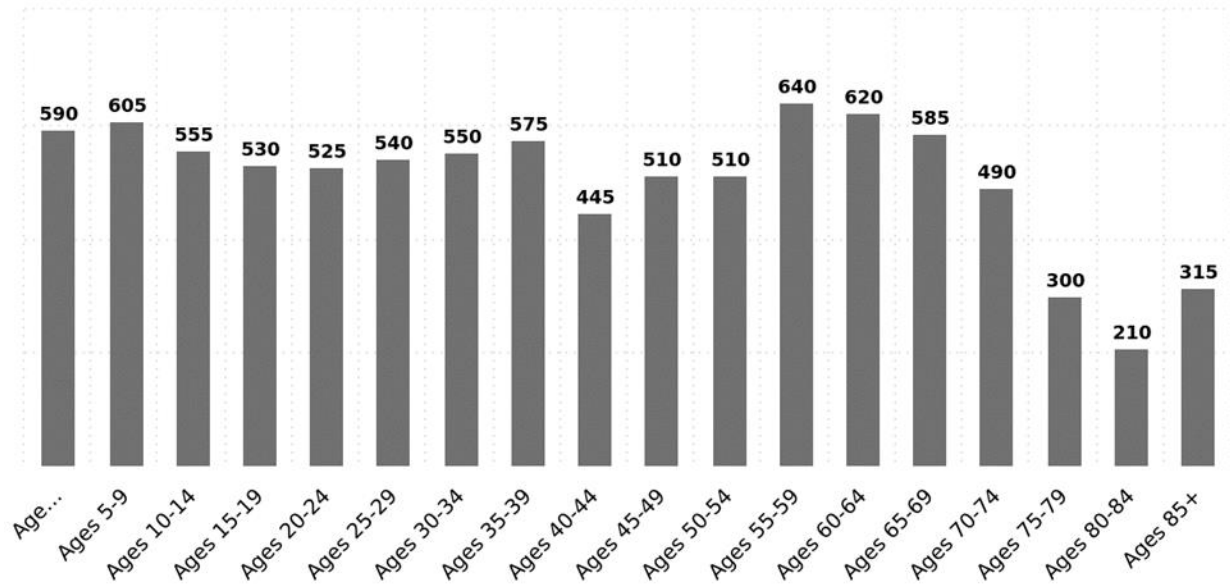
Population Age & Sex

A community's population by age is an important factor in identifying specific measures to mitigate fire related risks associated with a specific age group, such as seniors. Canada's aging population has been recognized as one of the most significant demographic trends. According to Statistics Canada, from 2011 to 2016 Canada experienced "the largest increase in the proportion of seniors since "Confederation" due to the baby boomer generation reaching the age of 65. There are now more Canadians over the age of 65 (16.9% of the population) than there were children aged 14 years and younger (16.6%).¹⁸

Seniors (those 65 years and over) are considered to represent one of the highest fire risk groups across the province based on residential fire death rate (fire deaths per million of population). It is identified that seniors are at an increased risk of fatality in residential occupancies compared to other age groups.

Minto Population by Age Group

Figure 3



Distribution (%) of the Population by Broad Age Groups

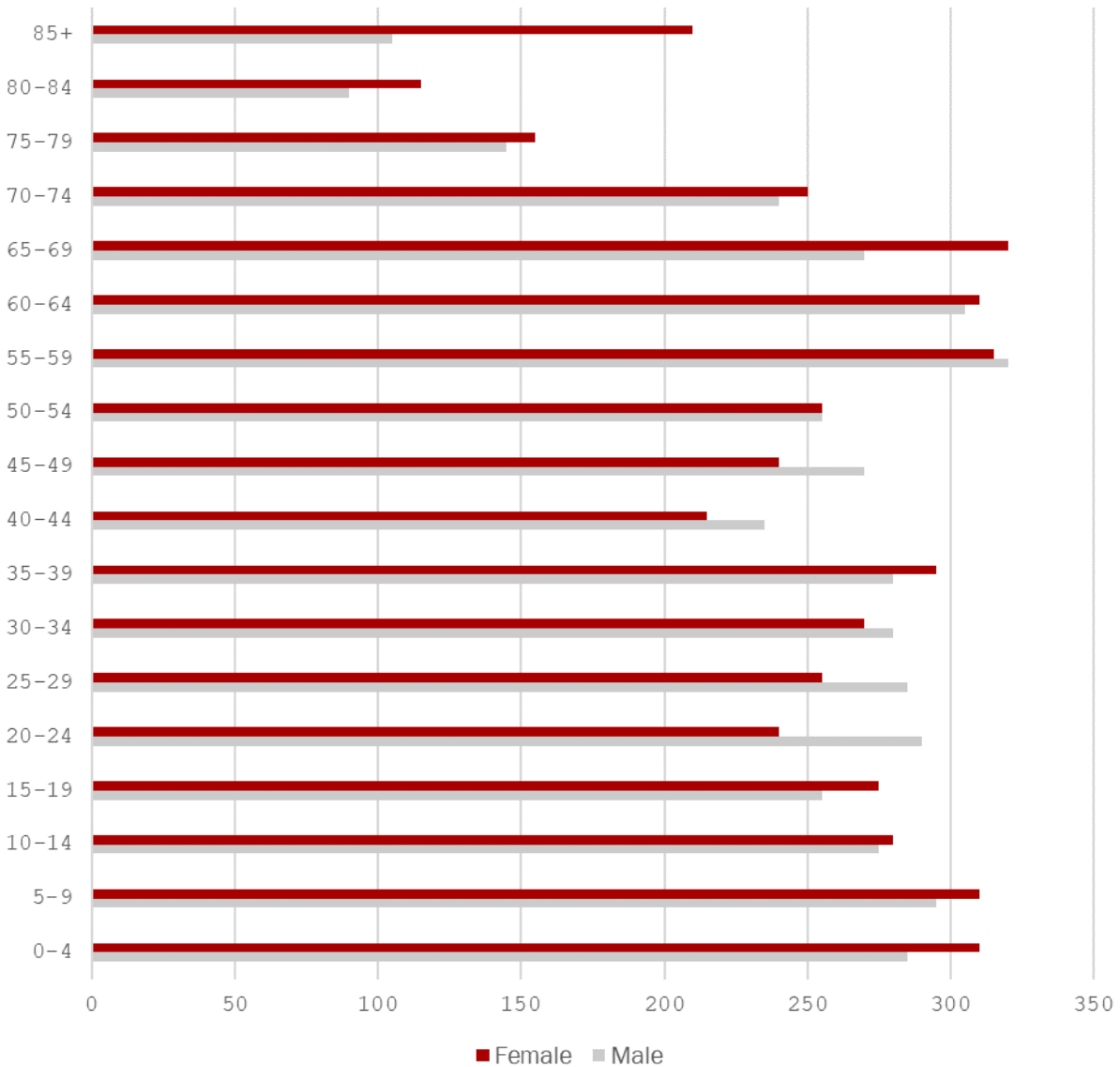
Age Groups	Population	Percentage of Overall Population
0-14	1755	19%
15-64	5440	59.8%
65 and over	1900	20.9%
85 and over	315	3.5%
Average age of the population	42.1	

Overall, the Town and the Province show slightly different age distributions. The 2021 Census identifies 20.9% of Wellington North’s population is over the age of 65, compared to 18.5% of Ontario’s. The youngest demographic (those 14 years of age and under) represents 19% of the Township’s total population, slightly higher in comparison to the province. While at a lower risk of fatality in residential occupancies overall when compared to seniors or adults, youth (aged 14 years and under) represent an important demographic for the purposes of public education. As a result, public education and prevention programs should target this demographic. Structured education programs consistently provided to children and youth can help to engrain fire and life safety awareness and knowledge into future generations.

These demographic trends are important considerations for the development of informed targeted public education programs and risk reduction strategies within the community.

Identified Risk: 20.9% of the population of Minto is over the age of 65 which doesn't increase the risk of fire, but increases the risk of a fatality if a fire were to occur.

Minto Population by Gender
Figure 5

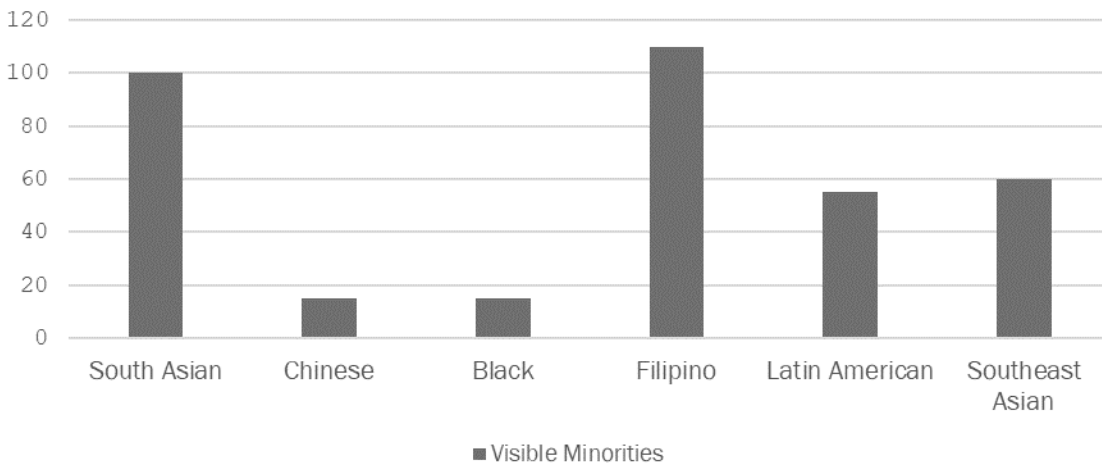


According to the National Fire Prevention Association (NFPA), males account for 57% of fire deaths and 55% of fire related injuries. In Minto, males make up the majority of the 20-49 age group, while females make up the majority of both the under 19 and over 50 age groups.

Cultural Background

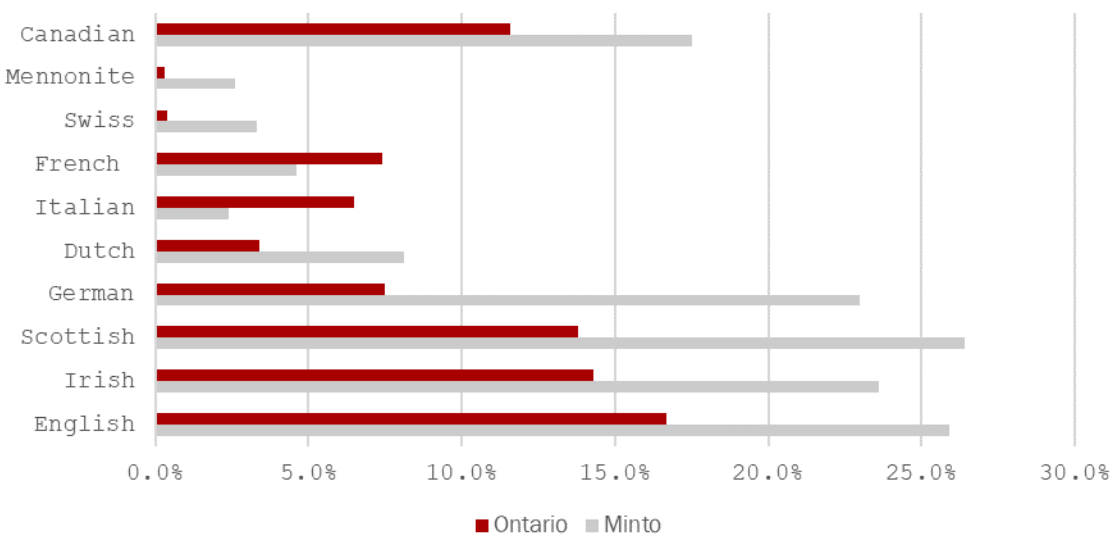
In 2021, the largest visible minority was Filipino with 110 persons or 1.2% of the population. The second group was South Asian with 100 persons or 1.1% of the population. The third group was Southeast Asian with 60 persons or 0.7% of the population.

Visible Minorities
Figure 6



Minto is home to a sizeable Mennonite community. The 2021 Census shows that the Mennonite population is 2.6 of the total population in Minto compared with 0.3% of Ontario's population.

Ethnic or Cultural Background
Figure 7



Knowledge of Official Languages

Figure 8

Languages	Total	Percentage
English only	8440	94.7%
French only	0	0
English and French	350	3.9%
Neither English nor French	120	1.3%

120 persons in Minto do not speak English or French, a communication barrier that should be considered when developing public education materials.

Identified Risk: MFD does not have public education materials translated in any other language than English.

Socioeconomic Circumstances

Socioeconomic circumstances of a community are known to significantly impact fire risk.

Socioeconomic status is reflected in an individual's economic and social standing and is measured in many ways. These factors can be reflected in the analysis of socioeconomic indicators such as labour force status, educational attainment and income as well as household tenure, occupancy, suitability, and cost.

Socioeconomic factors intersect in a number of ways and have direct and indirect impacts on fire risk. One such example is outlined in the O.F.M.E.M.'s Fire Risk Sub-Model.²³ The Sub-Model makes reference to the relationship between income and fire risk. As one consideration, households with less disposable income may be less likely to purchase fire safety products (e.g., smoke alarms, fire extinguishers, etc.), which puts them at higher risk of experiencing consequences from a fire. Another consideration is that households living below the poverty line may have a higher number of persons per bedroom in a household and/or children who are more likely to be at home alone. These circumstances would impact both the probability and consequence of a fire. While these complex relationships between socioeconomic circumstances and the probability / consequence of a fire are not well understood, this C.R.A. seeks to explore these factors.

The factors reviewed at a high level have been selected based on the data available from Statistics Canada. Socioeconomic factors such as income decile group and median household income have been displayed spatially throughout this section.

Factors that are highlighted in this section include:

- Labour force status
- Immigrant status

- Educational attainment
- Household tenure, occupancy, suitability, and cost

Labour Force Status

Those who are economically disadvantaged, including low-income families, the homeless and perhaps those living alone, may experience a higher fire risk. The O.F.M.E.M.’s Fire Risk Sub-Model references a number of reports that suggest there is a correlation between income levels and fire risk. The reports identify the following factors:

- The higher number of vacant buildings found in low-income neighborhoods attract the homeless. This introduces risks such as careless smoking, drinking and unsafe heating practices.
- Building owners are less likely to repair building systems (electrical, mechanical, suppression) due to affordability, increasing fire risk from improper maintenance.
- Households with lower disposable income are less likely to purchase fire safety products (i.e. smoke alarms, extinguishers, cigarette ignition resistant furniture, etc.) due to affordability.
- Households with lower disposable income are more likely to have their utilities shut off due to non-payment, leading to increased risks related to unsafe heating, lighting and cooking practices.
- The 1981 report, “Fire-Cause Patterns for Different Socioeconomic Neighborhoods in Toledo, Ohio” determined that the incendiary fire rate in low-income neighbourhoods is 14.4 times higher compared to areas with the highest median income. Further, fires caused by smoking and children playing occurred at rates 8.5 and 14.2 times higher, respectively.
- Single parent families are more economically challenged due to the fact that there is only one income. These households also have fewer resources to arrange childcare, increasing the likelihood of fires caused by unsupervised children.
- Studies have shown that cigarette smoking is inversely related to income. In Canada, findings by the Centre for Chronic Disease Prevention and Control through the National Population Health Survey established that there were nearly twice as many smokers in the lowest income group when compared against the highest (38% vs. 21% respectively), and
- Those with low education and literacy levels are inhibited in their ability to read instruction manuals and warning labels and less likely to grasp fire safety messages.²⁴

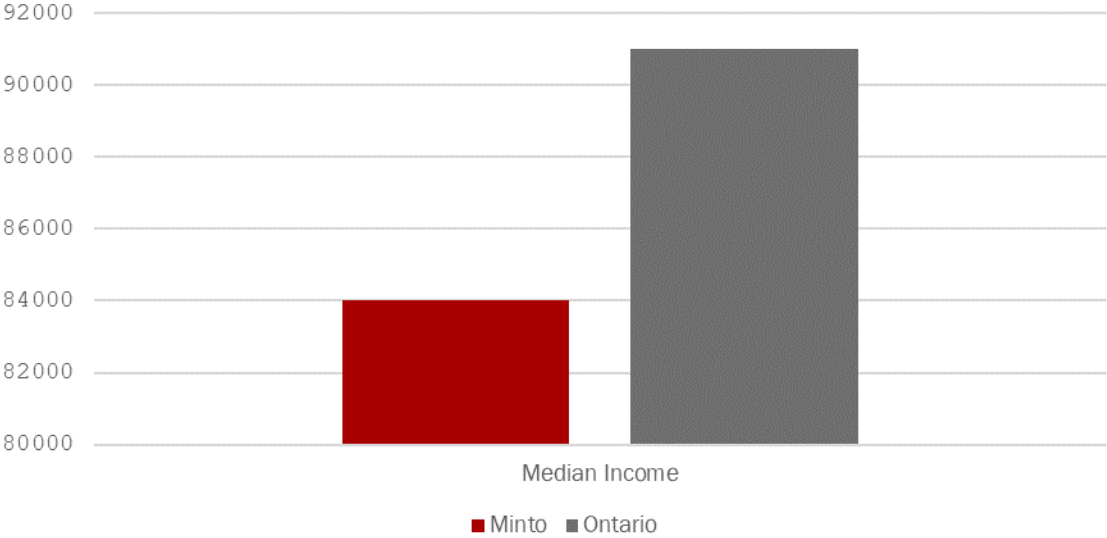
Labour force status is a possible indicator of income levels which directly influence fire risk (e.g. lower income, increased fire risk). The participation rate (i.e. the proportion of residents in the labour force) can also be an indicator of income and can be considered alongside unemployment rates (e.g. lower participation rate and higher unemployment could mean lower income, higher fire risk).

	Minto		Ontario	
Status	Population	%	Population	%

In the Labour Force	4655	65.06%	7,141,675	64.70%
Employed	4400	61.50%	6,612,150	59.90%
Unemployed	255	3.56%	529,525	4.8%
Not in the Labour Force	2505	35.01%	3,896,765	35.3%
Total:	7155		11,038,440	100%
(statcan, 2023)				

Labour force status, shown above shows that the Town of Minto has relatively the same participation rate as the Province of Ontario.

Median Household Income 2020
Figure 12



The median household income in Minto is 84,000, 8.3% lower than the provincial median of 91,000.

Highest Level of Education
Figure 13

Level of Education	Minto		Ontario	
	Total	Percentage	Total	Percentage
No certificate, diploma or degree	895	20.6%	667,665	8.8%
Highschool diploma or equivalent	1,495	34.3%	1,770,810	23.3%
Apprenticeship or trades certificate or diploma	345	7.9%	384,770	5.1%

College certificate or diploma	1,115	25.6%	2,789,795	23.6%
Bachelor's degree or higher	425	9.8%	3,528,600	36.8%

In 2021, 9.8% of those aged 25-64 in Minto had a bachelor's degree or higher, compared to 36.8% in Ontario. 20.6% of Minto's population aged 25-64 has no certificate, diploma or degree compared to 8.8% in Ontario.

Identified Risk: The low income population in Minto has increased fire risks due to various concerns as listed above.

Demographic Profile Risk

Identified Demographic Infrastructure	Issues/Concerns
Mennonite Population	<ul style="list-style-type: none"> • No smoke alarms • No access to internet/social media for public education • Language barriers
Immigrant Population	<ul style="list-style-type: none"> • Language barriers • Cultural differences • Migrant Housing • May lack, knowledge on fire safety matters. • May lack fire escape plan. • May not be familiar with building fire safety systems.
Seasonal Population	<ul style="list-style-type: none"> • Campfire safety • High density modular homes
Seniors	<ul style="list-style-type: none"> • Mobility/Cognitive issues • May lack knowledge of escape routes • Outdated, incorrectly installed or absent residential alarms due to mobility restrictions. • Multi floor buildings • Insufficient caregiver to patient ratios in long term care facilities.
General Population	<ul style="list-style-type: none"> • Population continues to grow as more subdivisions are built.

	<ul style="list-style-type: none"> • Increased population will result in an increase in fire call volume. • Increased drug related medical events Province wide may lead to an increase in the number of medical calls. • Provincial housing plan will lead to an increase in additional dwelling units
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Identified Risk: The sustainability of the volunteer firefighter organizational model could be impacted if a large portion of firefighters are required to travel outside the region for employment.

Transient Populations

Minto can see population fluctuations of up to 16,000 during the summer months due to tourism and short term overnight accommodation at local campgrounds. Traffic increases during the summer months on highway 9, also brings many people through town.

Hazard Profile

A hazard is defined as a phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Hazards can be natural, human-caused or technological. It is important to identify and consider these hazards from a fire risk, emergency response and overall public safety perspective in order to assist local governments and emergency management personnel plan for the risks within their communities and take the appropriate action to reduce future losses.

Under the Emergency Management and Civil Protection Act (E.M.C.P.A.), municipalities are required to ‘identify and assess the various hazards and risks to public safety that could give rise to emergencies and identify the facilities and other elements of the infrastructure that are at risk of being affected by emergencies’. 2002, c. 14, s. 4. The O.F.M.E.M. has recently released methodology guidelines outlining a process for the development of an H.I.R.A. program, to assist municipalities in assessing the local hazards and potential risks.

Current legislation requires an annual review and update of the municipally developed H.I.R.A.

As a result of the HIRA, the top hazards in the Town of Minto are:

1. Flood
2. Tornado
3. Infectious Disease
4. Ice Storm
5. Extreme Heat
6. High Winds
7. Cyber Attack

Hazard	Possible Impact on Fire Services
Flood	<p>There have been a couple floods in the history of the Town of Minto, the most significant being the flood of June 2017.</p> <p>The biggest impact on fire services could be response times depending on where the flood waters are laying, and firefighter burnout. If the majority of the community is affected by flooding, there may not be enough firefighters to provide adequate response capabilities.</p>
Tornado	<p>Minimal impact to fire services unless fire stations are in the path of destruction for the tornado. The potential impacts could be lack of firefighter resources to provide a response if many firefighter homes are in the path of destruction, as well as lack of resources in general to deal with the incident.</p>
Infectious Disease	<p>Within the past 20 years there have been three major pandemics. The impacts of this hazard have no geographical boundaries. The COVID-19 pandemic had significant impact on communities at a local level, which tested pandemic readiness and plans in a variety of ways. The ability to respond and adapt to the pandemic's effects, as with any emergency, is largely dependent on the social, economic and environmental needs and circumstances unique to each community.</p> <p>COVID-19 has highlighted the importance of community preparedness and pandemic planning and the need for first responders to adjust to these circumstances. Fire department personnel interact with members of the community on a daily basis and therefore will need to consider their own health and safety as well as those in the community if a hazard such as this were to occur.</p>
Ice Storm	<p>Episodes of freezing rain, ice or heavy snowfall (associated with winter weather) can have an array of consequences. For example, freezing rain can weigh down electrical transmission lines or branches causing them to break, which in turn can block roadways impeding the fire department or other first response agency's ability to access the road network, leading to extended travel times.</p> <p>Downed electrical wiring presents electrical current exposure hazards which can cause injuries requiring medical assistance and overall, damages to the electrical grid could lead to energy system disruption. Freezing rain, heavy snowfall or ice can also promotes dangerous driving conditions leading to motor vehicle collisions or crashes, driving emergency response call volume.</p>
Extreme Heat	<p>Extreme heat events are becoming more frequent as global climate change continues to affect the frequency, duration and severity of weather events. Evidence suggests that there is a higher relative risk of incidents for police</p>

	and fire during periods of high heat, therefore increasing call volumes. (Williams et al., 2020)
High Winds	<p>High winds can cause varying levels of property or structural damage; disrupt multi-modal transportation services and interfere with the delivery of utilities such as hydro or other critical infrastructure such as telecommunications. Damage to property and infrastructure caused by high winds can lead to:</p> <ul style="list-style-type: none"> • falling or flying debris leading to injury/fatalities, property and critical infrastructure damage; • restricted road access for fire department or other first response agency; • downed electrical wiring causing electrical current exposure hazards; • energy system disruption; • increase in call volume; • extended travel times; • individuals trapped under debris requiring rescue; • economic loss; and • release of hazardous materials due to container damage.
Cyber Attack	Minimal impact on fire services unless directly related to fire services information technology infrastructure.

Public Safety Response Profile

The public safety response profile includes analysis of the types of incidents responded to by other entities in the community, and those entities’ responsibilities. These entities could include police, ambulance, fire and other entities that may be tasked with or able to assist in some capacity in emergency situations.

- Ontario Provincial Police – Teviotdale Detachment
- Motor vehicle collisions, medical incidents, fire incidents, false fire incidents, public assistance
- Units include: major crime, street crime, community response, and traffic
- Ontario Provincial Police U.C.R.T
- CBRNE incidents, missing persons, incidents requiring specialized rescue
- Guelph Wellington Paramedic Services
- Provides pre-hospital primary and advanced paramedic emergency care, motor vehicle collisions, medical incidents, fire incidents and public assistance

- Victim Services Wellington
- Abuse and assault, domestic violence, personal injury, missing persons, bereavement, suicide, homicide, arson, accidents, robbery and harassment or stalking

Mutual/ Fire Protection Agreements

Minto currently operates under the Wellington County Mutual Aid Agreement. This agreement allows us to share resources with all 7 fire departments in Wellington County.

Minto also has signed Fire Protection agreements with the town of North Perth and The Township of Howick. These agreements outline a defined fee structure in order for us to cover sections of each municipality. Each agreement has a defined area which we provide Fire Protection for in the in their respective municipalities. Both agreements are valid for five years with automatic renewal clauses.

Mutual Assistance Agreements

Minto operates within the County of Wellington Mutual Aid plan; Minto Fire also participates in mutual aid with fire departments in both Huron and Grey Counties. The purpose of mutual aid is to all for the provision of personnel, equipment or materials in the case of an emergency per the Emergency Management & Civil Protection Act, 1990. The agreement provides direction to the organizations as to when and how to call for assistance and covers insurance and payment for assistance in the event of an emergency.

Community Services Profile

Fires and other emergencies can be devastating to communities and at times can overwhelm public safety agencies. In an emergency event, community-based agencies can provide surge capacity to the response and recovery efforts of first responders. These types of affiliations can contribute a variety of capabilities essential to response and recovery efforts

Community Service Agency	Types of Assistance Provided
Victim Services Wellington	The Victim services will dispatch volunteers to emergencies as requested by Police/ Fire; Victim Services will assess the situation and liase with Red Cross if needed. Victim services can provide emotional, practical, and referral support to the victim(s). VS follows up with victims for support/referral.
Canadian Redcross	Provide for immediate emergency needs: lodging, food/clothing, family reunification, personal services to best of ability for up to 72 hours. Volunteer Responders assess needs. Volunteers will liaise with victim services (or vice-versa) as needed. Red Cross staff or designate will act as Public Information Liaison for matters concerning Red Cross.
Wellington County Social Services	In the event of a fire, Social Services can support individuals and families in finding accommodations reflecting their needs.

Mennonite Disaster Service	<p>Mennonite Disaster Service (M.D.S.) Canada is a volunteer network of Canadian Anabaptist churches dedicated to responding to natural disasters in Canada and the United States. This organization aims to assist the most vulnerable community members, individuals, and families who would not otherwise have the means to recover.</p> <p>M.D.S. volunteers provide the skills and labor needed to respond, rebuild and restore after a disaster occurs.</p> <p>M.D.S. works in collaboration with other groups including faith-based organizations, local recovery committees, and both governmental and non-governmental agencies. M.D.S. Canada is made up of six regional/provincial units (Atlantic, Ontario, Manitoba, Saskatchewan, Alberta and B.C.)</p>
Radio Stations	100.1 The Ranch, 88.7 The River, 101.1 The Grand, 101.7 The One, AM 920, Country 93.7
Farm & Food Care	<p>Farm & Food Care Ontario operates a lending program of F.L.I.R. (heat sensing) modules to be used as a fire prevention and awareness tool by farmers to increase their awareness of fire safety, potential risks and prevention.</p>
Wellington Guelph Hoarding Response	The Wellington Guelph Hoarding Response (WGHR) represents a committed group of organizations in Guelph Wellington that have come together to provide support and resources for persons with hoarding challenges.
Seniors Centre of Excellence	The Seniors' Centre for Excellence (SCE) was established in 2008. The Centre coordinates support services and programs to empower seniors to remain in their homes.
Waterloo Wellington Dufferin Victorian Order of Nurses	<p>V.O.N. Canada is a not-for-profit, charitable home and community care organization who's nurses, therapists and other health care providers care for Canadians in their own homes providing services such as Meals on Wheels and Supportive Housing options. Volunteers who provide at-home care and assisted living services to seniors can be trained to assist the C.F.E.S. in identifying occupants who are at increased fire risk due to unsafe living conditions (e.g. absence of a working smoke alarm) which may require follow-up or inspection.</p>
Guelph Wellington Community Paramedicine Program	Community Paramedicine is an evolving model of community-based health care in which paramedics operate in an expanded role, outside traditional emergency response and transport. The program aims to support individuals to access collaborative resources in order to reduce

	dependency on 911 and possible transports to the emergency department.
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Economic Profile

As referenced in O. Reg. 378/18, the economic profile assessment includes analysis of the economic sectors affecting the community that are critical to its financial sustainability. This involves economic drivers in the community that have significant influence on the ability of the community to provide or maintain service levels. The following sections consider these economic characteristics within the Town of Minto.

Largest Employers in the Town of Minto:

1. TG Minto Corporation
2. North Wellington Health Care
3. Royal Terrace Nursing & Retirement Homes
4. Caessant Care Nursing & Retirement Home

Identified Risk: MFD has identified top employers that contribute to the economic vitality of the community. If a fire were to occur at one of these facilities it could have negative impacts on the financial well-being of the Town.

Labour Force by Top 5 Industry

1. Manufacturing
2. Healthcare & Social Assistance
3. Construction
4. Agriculture, forestry and fishing
5. Retail Trade

(Wick-Graham, 2024)

Sectors

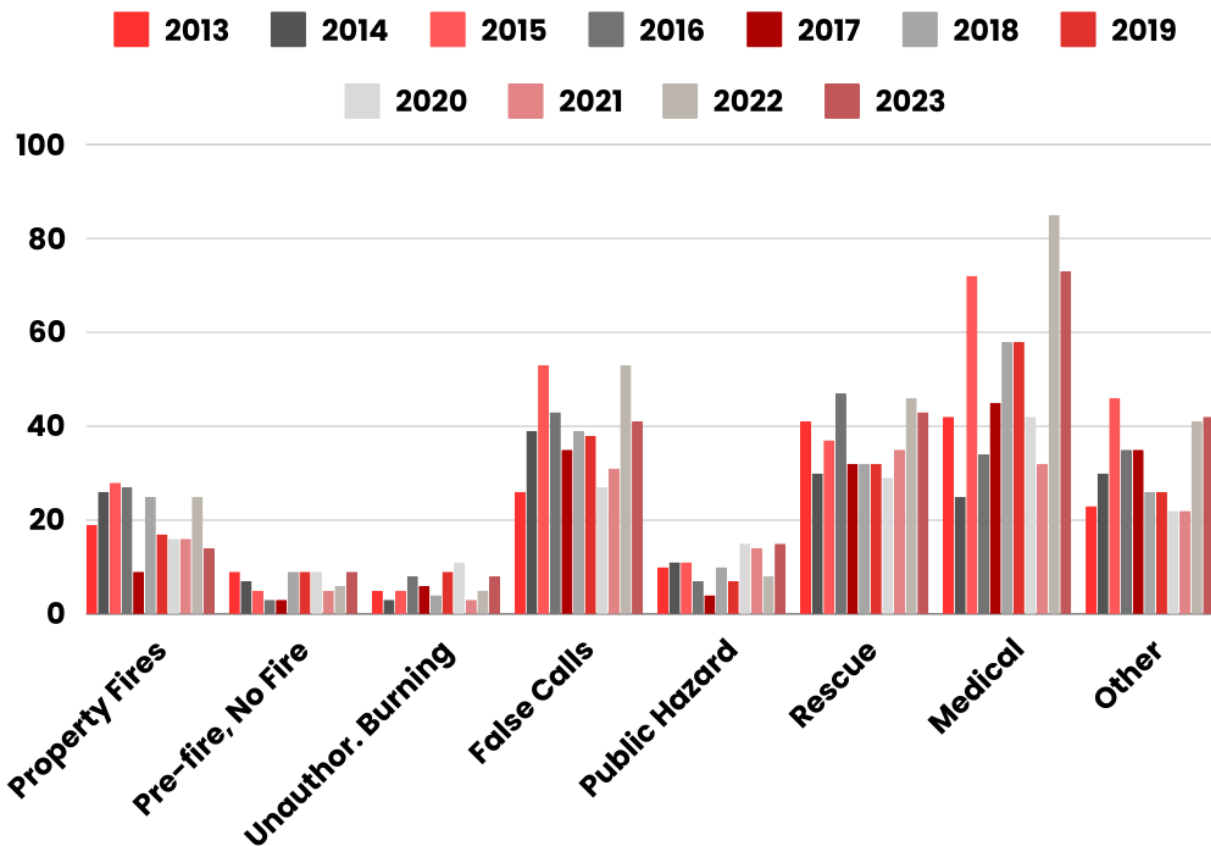
A sector is an area of the economy in which businesses share the same or related business activity, product or service.

Key sectors in Minto:

1. Manufacturing
2. Agriculture
3. Healthcare

Identified Risk: Agriculture is a significant sector in Minto, we have many different types of farms. Barn fires can have significant impacts on our residents. Barn fires increase during the winter months.

Past Loss and Event History Profile



As referenced in O. Reg. 378/18, the past loss and event history profile assessment includes the analysis of a community’s past emergency response experience, including the number and types of emergency responses, the number of injuries and fatalities, the amount of dollar loss as a result of fires, and a comparison of the community’s historical fire loss statistics with provincial fire loss statistics. The evaluation of previous emergency response data has shown to be an effective tool to inform a municipality’s decision-making process with regards to future fire protection services and programs, including enhanced public fire and life safety education and fire safety inspection programs. The following sections consider these past loss and event history characteristics within the Town of Minto.

Injury & Fatalities

Minto has experienced 1 civilian fatality, and 4 civilian injuries during the period of January 1, 2013 to January 1, 2024.

Historical Responses

Response Type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Property Fire	19	26	28	27	9	25	17	16	16	25	14

Prefire Conditions	9	7	5	3	3	9	9	9	5	6	9
Unauthorized Burn	5	3	5	8	6	4	9	11	3	5	8
False Fire & CO	26	39	53	43	35	39	38	27	31	53	41
Public Hazard	10	11	11	7	4	10	7	15	14	8	15
Rescue	41	30	37	47	32	32	32	29	35	46	43
Medical/ Resus	42	25	72	34	45	61	58	42	32	85	73
Other	23	30	46	35	35	41	26	22	22	41	42
Total:	175	171	257	204	169	221	196	171	158	269	245

If false alarm calls continue to increase, the risk of firefighter burnout starts to increase as well.

Top Property Types & Incident Counts (2021-2023)

Clifford	
Automobile	1
Barn – equipment or produce only	1
Detached Garage	1
Restaurant	1
Sol, Storage Facility	1
Harriston	
Agricultural	2
Detached Dwelling	2
Group Home	1
Large Truck	1
Motor Home, Camper, Trailer	1
Multi-Unit Dwelling 2 to 6 units	1
Open Land	1
Outbuildings- unclassified	1
Shed, Children’s Playhouse	1
Trailer Combination (auto trailer)	1
Palmerston	
Barn – equipment or produce	1
Large Truck	1
Open Land	2

Fortunately, Minto doesn’t have any glaring trends in its data surrounding fire specifically, the highest number of incidences over a 4 year period (2019-2023) is 2 per property type.

Identified Risk: Property types such a detached dwelling, barn-equipment or produce only and agricultural see the most incidence of fire.

Cause of Ignition

Causes	
Vehicle – Mechanical	7
Vehicle – Electrical	2
Wood Burning Stove	1
Smokers’ Articles	1

Lighters (Open Flame)	1
Open Fire (Camp fire, brush fire)	1
Other Cooking Items (Toaster, Air fryer)	1
Undetermined	15

In terms of cause, Minto doesn't have any significant trends. Mechanical and electrical failure are the two biggest causes of fires in vehicles.

Identified Risk: A substantial amount of incidence of fire in Minto are due to vehicle fires.

Identifying Treatment Options for Top Risks in the Community

The preferred treatment options identified for each risk in the last column of this worksheet can be used to assist the fire department to set its type and level of fire protection services. O.F.M.E.M. T.G.-02-2019 apply the process of identifying a risk treatment option for an identified risk. The risk treatment options include avoidance, mitigation, acceptance, and transfer.

There are four options:

1. Avoid Risk: Eliminate the Hazard
2. Mitigate Risk: Reduce probability or impact (consequence) of the risk
3. Accept Risk: Take no actions
4. Transfer Risk: Transfer the risk to another party

The 'Five Es' of Community Risk Reduction

NFPA 1300 defines a Community Risk Reduction plan as a "document that outlines the goals, objectives, programs, and resources used to reduce the risks identified by the community risk assessment". Establishing service levels in regards to programs and resources in alignment with CRA is required of Ontario municipalities as part of O. Reg. 378/18.

To apply the risk conclusion, each identified risk will be reviewed through the lens of the "Five E's". The five E's is a framework outlined in NFPA 1300, and the Institution of Fire Engineers' Vision 20/20 National Strategy for Fire Loss Prevention. The five e's are:

1. Education (increasing awareness)
2. Engineering (changes to physical environment)
3. Economic Incentives (influencing change through economic incentives)
4. Enforcement (enforcing legislation through inspection programs)
5. Emergency Response (mitigating injury, illness and saving lives)

Five E's	Description	Purpose
Education	Education influences audiences to refrain from risky and unhealthy behavior to take positive action to reduce risk.	Consideration within Public Education Programs
Enforcement	Enforcement reduces risk through enforcing legislation through inspections and fines for non-compliance.	Consideration within Fire Inspection & Enforcement Programs
Engineering	Engineering includes incorporating new products and technology to modify the environment to prevent or mitigate injuries and death.	Consideration within the Fire Inspection & Enforcement Programs
Economic Incentives	Economic incentives are typically offered to encourage better choices and changes in behavior.	Proposed within Fire Inspection & Enforcement Programs
Emergency Response	Effective emergency response can mitigate the effects of unintentional injuries and save lives.	For consideration within the proposed Emergency Response Deployment Options.
