

# COMMUNITY RISK ASSESSMENT



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## EXECUTIVE SUMMARY

St. Marys Fire Department conducted a Community Risk Assessment (CRA) for the Town of St. Marys, examining public safety risks from a Fire Services perspective.

The CRA process followed the Ontario Fire Marshall and Emergency Management (OFMEM) Guidelines as identified in [O. Reg. 378/18, Community Risk Assessments](#). The Fire Chief assisted in the process by providing vital information to determine risks for the Town.

The CRA is a living document that must remain current, updated as circumstances change and reviewed annually, at a minimum, to stay compliant with the regulation.

The following is a list of considerations used to develop the CRA as it relates to St. Marys:

- St. Marys approximate population is 7,386. (Census Profile, 2021)
- 26.5% of the population is aged 65 and over (Census Profile, 2021).
- St. Marys comprises a blend of rural and urban areas with farmland, and some industry.
- There are two long term care homes in St. Marys.
- St. Marys building stock is a mixture of residential housing with single-family dwellings, multi-resident buildings, and commercial and industrial areas.
- A rail line runs through St. Marys with risk to residents high if any hazardous spill due to the proximity of homes surrounding the rail line.
- A review of past incidents and dollar losses for the last three years.
- A review of inspection and violations for the last three years.

The first step in conducting the CRA was to identify the hazards and risks to the Town of St. Marys using community profiles. The community profiles included: geography, building stock, demographics, hazards, public safety response entities, critical infrastructure, community services, economics and past emergency responses and loss history.

The final stage of the process was to develop a risk treatment plan for each identified risk that included recommended strategies and actions to avoid, mitigate, share, or transfer the risk or to determine its acceptance.

The chart found in the Risk Summary section results from the assessment and outlines the top risks, issues and concerns in St. Marys and the preferred treatment options. Details are included for the following:

- Extreme weather events
- Energy supply pipelines, storage sites, electricity, & natural gas
- Wildwood Lake water/ice rescues
- Human health emergencies
- Explosive storage areas
- Structure fires

While St. Marys Fire Department provides fire protection service to the municipality of the Town of St. Marys, the same services are provided for the Municipality of Perth South under the Fire Protection agreement.

The Municipality of Perth South has endeavoured to complete a Community Risk Assessment specific to their own needs. However, as per the Fire Protection agreement, St. Marys does provide service to Wildwood Conservation Area which is geographically located in the Municipality of Perth South. For the purpose of this Community Risk Assessment, Wildwood Conservation Area has been considered.



## ACRONYMS

CO	Carbon Monoxide
CRA	Community Risk Assessment
CRCC	
EMS	Emergency Management Services
FD	Fire Department
LHFS	
MVC	Motor Vehicle Collision
NFPA	National Fire Protection Association
NG	Natural Gas
OFMEM	Ontario Fire Marshall and Emergency Management
OPP	Ontario Provincial Police
PEOC	Provincial Emergency Operations Centre
PFD	Personal Flotation Device
RDC	Rapid Deployment Craft
RTC	Regional Training Centre
SMFD	St. Marys Fire Department
SOG	Standard Operating Guideline
UTRCA	Upper Thames River Conservation Authority

## **INTRODUCTION**

The Community Risk Assessment was conducted by St. Marys Fire Department in accordance with The Office of the Fire Marshal and Emergency Management, Regulation 378/18, that came into effect July 1st, 2019. Part of this Regulation requires that a CRA is to be completed no later than five years after a previous CRA was completed. The Regulation also requires the municipality or fire department to review the CRA every 12 months to ensure it accurately reflects the Mandatory Profiles and fire and emergency risks. The completion of a Community Risk Assessment will allow a municipality and its fire service to make sound decisions on the level of fire protection it will provide its residents.

Risk is the measure of the probability and possibility of an event occurring that will have adverse effects on the community including the health, property, organization, and environment.

It is this identification of such fire and life safety risks and their prioritization based on the probability and the impacts such events have on the community that will provide a basis for which a plan on how to prevent and mitigate such events from occurring is amassed. It is this assessment that also directs fire services in identifying the levels of service to be provided in relation to public fire safety education, Fire Code inspections and enforcement and emergency response in preventing and mitigating the events identified.

### **Mandatory Profiles**

The CRA profile is based on nine mandatory sections that include:

1. Geographic
  - The physical features of the community
2. Building Stock
  - Types, numbers, use and ages of various buildings within the community
3. Critical Infrastructure
  - Interconnected facilities/services that meet vital human needs, sustain economy, protect public safety/security
4. Demographic
  - Population composition: size & dispersion, age, gender, cultural background, socio-economic, education
5. Hazard
  - Natural hazards, hazards caused by humans and technological hazards
6. Public Safety Response
  - The agencies and organizations in community that may respond to certain types of incidents
7. Community Services
  - Community agencies, organizations, associations that can provide services to support the fire department
8. Economic

- Sectors affecting the community that are critical to its financial sustainability
9. Past Loss and Event History
- Analysis of community's past emergency response experience & comparison to provincial fire loss statistics

## **Treatment Risks**

The evidence and analysis of these profiles helps in the development of a community plan to treat the associated public safety risk. The data worksheets for each profile are included in this document, and it is these worksheets that will assist in assigning risk levels to best treat each risk and the resources to do so. The different levels of treatment risks are:

- Avoid the Risk – implementation of programs to prevent fires or emergencies from occurring.
- Mitigate the Risk -programs and initiatives implemented to reduce the probability and/or consequences of a fire or emergency.
- Accept the Risk – after identifying and prioritizing a risk, it is determined that there are no specific programs or initiatives to be implemented to address this risk.
- Transfer the Risk – the fire department has chosen to transfer the impact and/or management of the risk to another organization, body or outside agency.

## **Review**

Fire departments should maintain documentation required by O. Reg. 378/18. This documentation should include:

- Any changes to any of the mandatory profiles,
- Any changes to assigned risk levels or fire protection services that occur because of the review, and
- Any other information the fire department deems appropriate to the review or any resultant changes to fire protection services.

If it is found upon completion of the review within the 12-month (annual review) period that no changes are required to any of the profiles or fire protection services, then a review could consist of documentation that reflects these findings.

## DATES OF REVIEW AND UPDATES



Year: 2025

Profile	Issues/Concerns	Treatment of Risk	Preferred Treatment Option

Year: 2026

Profile	Issues/Concerns	Treatment of Risk	Preferred Treatment Option

Year: 2027

Profile	Issues/Concerns	Treatment of Risk	Preferred Treatment Option

Year: 2028

Profile	Issues/Concerns	Treatment of Risk	Preferred Treatment Option

Year: 2029

Profile	Issues/Concerns	Treatment of Risk	Preferred Treatment Option

## **RISK SUMMARY**

The following summary outlines the top risks to life safety and property along with the suggested means of reducing or mitigating the noted risks. It is the preferred treatment option which will identify areas that need to be addressed through public education, Fire Code enforcement, or within the level of fire service provision.

As with any plan, a thorough review coupled with sound strategic planning will reap successes either in the form of fewer fires, reduced fire related injuries, lower dollar property loss through ongoing fire prevention initiatives, early warning detection systems and proactive inspections and public education.



Top Risk or Issue/Concerns	Preferred Treatment Option(s)
Bodies of Water	<p>Thames River, Trout Creek, Wildwood Lake, Swimming Quarry and Fishing Quarry</p> <ul style="list-style-type: none"> <li>• Review water rescue requirements under present legislation, regulations, and costs.</li> <li>• SMFD provides Still Water, Swift Water and Ice rescue responses as per NFPA Standard 1006.</li> <li>• SMFD has developed response protocols, SOGs, Mutual Aid Agreements, and enhanced level of service provisions for water and ice rescue responses outside its scope of operations.</li> <li>• Promote safety equipment that should accompany those that venture onto the ice such as whistles, wearing flotation suits, air horns, throw ropes, etc.</li> <li>• Implement water safety public education initiatives through brochures and signage near bodies of water.</li> <li>• Promote water safety programs through swimming organizations and other first responders such as the police services and Perth County Paramedics.</li> <li>• Promote winter activity safety on ice through signage along the shore and submissions to local media outlets.</li> <li>• Promote safety equipment that should accompany those that venture onto the ice, such as whistles, wearing of floatation suits, air horns, throw ropes, etc.</li> </ul>
Inland Rescues – Trench / Confined Space / Low Angle	<ul style="list-style-type: none"> <li>• SMFD does not perform technical rescues such as confined space, or trench rescue.</li> <li>• SMFD performs auto extrications during MVC responses.</li> <li>• SMFD does perform low slope rescue.</li> <li>• Have mutual aid procedures in place to call in resources to mitigate such events.</li> </ul>

Top Risk or Issue/Concerns	Preferred Treatment Option(s)
Structure Fires	<ul style="list-style-type: none"> <li>• Continue in person Fire Prevention Public Education programs (OFMEM Fire Safety Lesson Plans; Semi-annual Door to Door Campaign; Fire Chief for a Day; school visits; Friendship Center Seniors program; to promote fire safety &amp; educate residents of St. Marys in a comfortable environment conducive to learning.</li> <li>• Continue to promote Fire Safety both in-person (Fire Prevention Public Education Sessions &amp; Special Events) &amp; online via social media platforms (Town of St. Marys Website / Facebook / X (formerly known as Twitter) all trending Fire Safety).</li> <li>• Continue to promote (both in person &amp; on social medial platforms), of specific fire safety &amp; Emergency Preparedness themes during specified weeks &amp; seasons (Fire Prevention Week; Carbon Monoxide Awareness Week; Holiday Fire Safety; 12 Days of Christmas Fire Safety; Emergency Preparedness Week; etc.)</li> <li>• Continue to promote fire safety practices for open air burning and in the event of a burn ban that information is shared through social media messaging.</li> <li>• Implement an online platform for residents to request / schedule a home visit for alarm safety checks to enhance the Wake-Up St. Marys Program</li> <li>• Enforcement of Fire Code Violations</li> </ul>
Hazardous Material Incidents	<ul style="list-style-type: none"> <li>• SMFD has a response agreement with GFL Environmental Inc. to provide hazardous materials response with equipment and level of expertise in mitigating such events.</li> </ul>

Top Risk or Issue/Concerns	Preferred Treatment Option(s)
St. Marys Fire Services	<ul style="list-style-type: none"> <li>• SMFD continued recruitment of firefighters to increase the number of fire fighters available to respond to an incident during the daytime.</li> <li>• Monitor response timelines and staffing. Must achieve minimum 50%.</li> <li>• Continue monitoring response times to ensure compliance with NFPA 1720 &amp; the OFMEM Fireground Effectiveness Sub-Model.</li> <li>• Firefighters must live within 10 minutes of the Fire Hall.</li> <li>• Review station response boundaries.</li> <li>• Review station locations.</li> <li>• Review current radio network system to explore avenues of improved radio coverage across the Town.</li> <li>• Explore new opportunities of entering into automatic aid agreements with neighbouring fire services.</li> </ul>

The following tables represent the compilation of an in-depth analysis of the risks identified during the completion of the nine mandatory profiles. Each worksheet contains the related risks and associated information that were identified. Within each profile, the recommended level of treatment and the suggested means of handling the risks have been included (where applicable).

The Fire Chief will be able to use this information in the formulation of the Community Risk Reduction Plan.



Significant waterflow at Queen Street bridge, St. Marys. 2018

## OFMEM FIRE STATISTICS FROM 2020 TO 2022

Year	2020
Number of Structure Fires	6
Number of Fire Fighter Injuries	0
Number of Civilian Injuries and Deaths	0
Total Dollar Loss	\$61,000
Fire Cause Determination	Processing Equipment, or Electrical distribution equipment, or Open flame tools, smokers' articles, heating equipment, chimney etc.

Year	2021
Number of Structure Fires	4
Number of Fire Fighter Injuries	0
Number of Civilian Injuries and Deaths	0
Total Dollar Loss	\$665,000
Fire Cause Determination(s)	Processing Equipment, or open flame tools, smokers' articles, or Electrical distribution equipment.

Year	2022
Number of Structure Fires	9
Number of Fire Fighter Injuries	0
Number of Civilian Injuries and Deaths	0
Total Dollar Loss	\$607,500
Fire Cause Determination(s)	Processing Equipment, or open flame tools, smokers' articles, or Electrical distribution equipment.

# COMMUNITY PROFILE

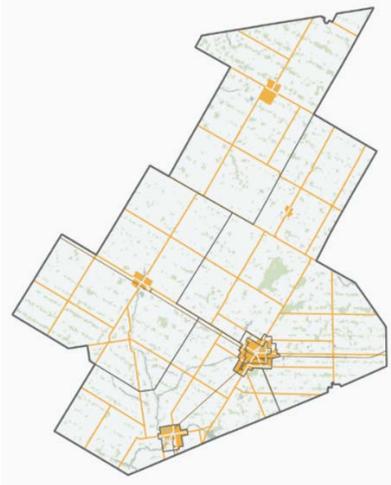
## Worksheet 1: Geographical Profile

St. Marys is a town in southwestern Ontario, Canada. It is located at the confluence of the north branch of the Thames River and Trout Creek southwest of Stratford and is surrounded by the Township of Perth South in Perth County, Ontario. St. Marys operates under its own municipal government that is independent from the county's government. Nonetheless, the three entities enjoy a large degree of collaboration and work together to grow the region as a leading location for industry and people. Census data published for Perth County by Statistics Canada includes St. Marys and most Perth County publications also do, at least in some sections of the document.

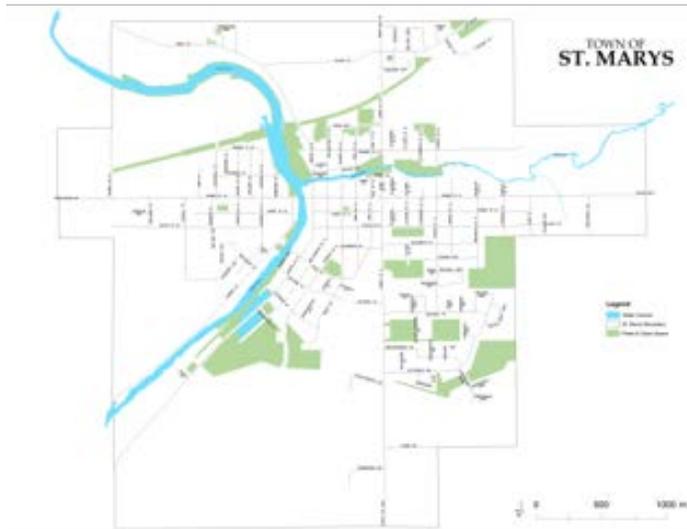
The Town is also known by its nickname, "The Stone Town", due to the abundance of limestone in the surrounding area, giving rise to numerous limestone buildings and homes throughout the Town. St. Marys Cement, a large cement producer founded in the Town, capitalized on this close feed stock, and grew to be a major producer of cement in the province of Ontario.

St. Marys is home to the Canadian Baseball Hall of Fame. It is the burial place of Arthur Meighen, Canada's ninth prime minister. Timothy Eaton, who went on to become one of Canada's most famous retailers, opened his first businesses in Canada in nearby Kirkton, Ontario, and later St. Marys.

In the 2021 Census of Population conducted by Statistics Canada, St. Marys listed the population at 7,386 living in 3,128 of its 3,216 total private dwellings, an increase of 1.7% from its 2016 population of 7,265. With a land area of 12.44 km<sup>2</sup> (4.80 sq mi), it had a population density of 593.7/km<sup>2</sup> (1,537.8/sq mi) in 2021.



Perth County map including proximity of St. Marys to Stratford.



Town of St. Marys map

Geographic Feature	Potential Impact on the Delivery of Fire Protection Services
Thames River and Trout Creek	<ul style="list-style-type: none"> <li>• Impacts training and equipment for response service delivery.</li> <li>• Training - Go Team members must receive training and certification for Still Water, Swift Water &amp; Ice Water Rescue. RTC's are in high demand to instruct these courses and can be expensive.</li> <li>• Non “Go Team” members certified to Awareness level in Still Water, Swift Water &amp; Ice Water Rescue.</li> </ul>

Geographic Feature	Potential Impact on the Delivery of Fire Protection Services
	<ul style="list-style-type: none"> <li>• Firefighters conduct theory and practical training for both Swift Water &amp; Ice Water Rescue Training quarterly.</li> <li>• Equipment - The Fire Department has had to purchase and maintain equipment to conduct Still Water, Swift Water &amp; Ice Water Rescue operations. Equipment such as RDC, Mustang Dry Suits, PFDs, Helmets, knives, head lamps, strobe lights, knives, rescue baskets with flotation devices, ropes &amp; practice dry suits.</li> <li>• Response times/travel time to calls.</li> <li>• Minimal impact for travel times to the Thames River. There are railroad tracks that cross Park Street and James Street South, which are primary routes that the fire department would use to respond. There are two alternate routes that could be used that would cause a significantly delayed response.</li> <li>• Weather - Typically Spring milder temperatures will cause the river to swell, overflow can cause flooding in low lying areas. Public Education for water safety is announced through social media and the local newspaper.</li> <li>• Recreational/tourist activities - Increased activity with kayaks, canoes and fishing typically lasts from June - September. Public Education for water safety is announced through social media and the newspaper.</li> </ul>
Railway Tracks	<ul style="list-style-type: none"> <li>• Impacts station location</li> <li>• Impacts response protocols</li> </ul>
Wildwood Lake	<ul style="list-style-type: none"> <li>• Impacts training, equipment for response service delivery.</li> <li>• Impacts response times and travel routes to fire calls.</li> <li>• Remote location of Wildwood Lake impact road infrastructure and accessibility.</li> </ul>

Geographic Feature	Potential Impact on the Delivery of Fire Protection Services
	<ul style="list-style-type: none"> <li>• During summer months increased risk of boating accidents / drownings as tourists are not familiar with the lakes and their risks.</li> <li>• In the winter snowmobiles / ice fisherman may fall through the ice as they are not familiar with the thickness of the ice or water currents under the ice</li> <li>• Response capabilities are hampered due to lack of access points, or the parties involved are not familiar with their exact location.</li> </ul>
Swimming Quarry	<ul style="list-style-type: none"> <li>• Training – “Go Team” Members must receive training and certification for Still Water &amp; Ice Water Rescue.</li> <li>• RTC's are in high demand to instruct these courses and can be expensive. These courses are weather dependent which makes scheduling difficult.</li> <li>• Firefighters conduct theory and practical training for both Swift Water &amp; Ice Water Rescue Training semi- annually.</li> <li>• Equipment - The Fire Department has had to purchase equipment to conduct Still Water &amp; Ice Water Rescue operations. Equipment such as RDC, Mustang Dry Suits, PFDs, Helmets, knives, head lamps, strobe lights, knives, rescue baskets with flotation devices, ropes &amp; practice dry suits.</li> <li>• Response times/travel time to calls - minimal impact for travel times to the Quarry's. There are railroad tracks that cross Park Street and James Street South, which are primary routes that the fire department would use to respond. There are two alternate routes that could be used that would cause a significantly delayed response.</li> <li>• Recreational/tourist activities - Increased activity with swimmers typically lasts from June - September.</li> <li>• It is estimated that 30,000 people visit the quarry from July - August. Certified Lifeguards are on site.</li> </ul>

Geographic Feature	Potential Impact on the Delivery of Fire Protection Services
	<ul style="list-style-type: none"> <li>• It's estimated that 75% - 80% are from out of town and are not aware of the inherent dangers.</li> <li>• Public Education for water safety is announced through social media and the local newspaper.</li> <li>• Water Safety Day educational awareness is conducted every June.</li> </ul>
Fishing Quarry	<ul style="list-style-type: none"> <li>• Training - Instructors for Swift Water &amp; Ice Water Rescue have to re qualify every two years.</li> <li>• In house training - Firefighters conduct theory and practical training for both Swift Water &amp; Ice Water Rescue Training semi-annually.</li> <li>• Equipment - The Fire Department has had to purchase equipment to conduct Swift Water &amp; Ice Water Rescue operations. Equipment such as RDC, Mustang Dry Suits, PFDs, Helmets, knives, head lamps, strobe lights, knives, rescue baskets with flotation devices, ropes &amp; practice dry suits.</li> <li>• Response times/travel time to calls - minimal impact for travel times to the Fishing Quarry. There are railroad tracks that cross Park Street and James Street South, which are primary routes that the fire department would use to respond. There are two alternate routes that could be used that would cause a significant delayed response.</li> <li>• Weather - Typically Spring milder temperatures will cause an overflow into the Fishing Quarry. Public Education for water safety is announced through social media and the local newspaper.</li> <li>• Recreational/tourist activities - Increased activity with fishing typically lasts from June - September. There is no swimming aloud in the Fishing Quarry. Public Education for water safety is announced through social media and the local newspaper.</li> </ul>
Highway and Roads	<ul style="list-style-type: none"> <li>• There are five major arteries that lead into St. Marys from the municipality of Perth South roads.</li> <li>• Ontario highway 7 runs east to west outside of St. Marys.</li> </ul>

Geographic Feature	Potential Impact on the Delivery of Fire Protection Services
	<ul style="list-style-type: none"> <li>• Highway 7 experiences high volumes of motor vehicles and heavy trucks as this links the cities of London and Stratford.</li> <li>• Training - Firefighters completed a Traffic Control Course Association of Ontario Roads Supervisors (AORS) Book 7 Unplanned events course. Firefighters attend RTC's to receive certification NFPA 1006 Auto Extrication technician level.</li> <li>• In house training - Firefighters conduct theory and practical training for both traffic control &amp; auto extrication quarterly.</li> <li>• Equipment -The Fire Department has purchased two battery operated and small engine based hydraulic Auto Extrication equipment, air bags, plastic cribbing, struts, &amp; auto cribbing.</li> <li>• Response times/travel time to calls - No real impact as the Fire Hall is 3 kms from the corner of James Street South and Highway 7.</li> <li>• Winter weather plays a major factor for increased emergency response call volume for motor vehicle collisions and delayed response times due to highway conditions.</li> </ul>
Town Road System	<ul style="list-style-type: none"> <li>• Intersections in some areas are very tight and difficult to navigate.</li> <li>• Situations such as this increase the risk of apparatus being involved in a motor vehicle collision.</li> <li>• Poor network of roads impedes fire apparatus from arriving at a fire call in a timely manner</li> </ul>
Forest, Brush Cover and Open Fields (Wildland)	<ul style="list-style-type: none"> <li>• The Town of St. Marys has little forest and brush cover.</li> <li>• Perth South is mainly agriculture and is subject to open field fires during the summer months. Enforcing the Open-Air By-law and social media releases is one way to reduce these types of fires especially during burn bans.</li> </ul>

Geographic Feature	Potential Impact on the Delivery of Fire Protection Services
	<ul style="list-style-type: none"> <li>• The main risk of wildland fire is outside St. Marys, but within our response area at Wildwood Conservation Area.</li> <li>• The Town of St. Marys has a fire response agreement with Perth South to provide protection of the Wildwood Conservation area and campgrounds.</li> <li>• Lack of access points due in part to wilderness conditions, makes it difficult to execute the removal of injured parties and locate and attend forest fires.</li> <li>• Fire Department does not have an all-terrain vehicle. Conservation Authority does, but with lack of potable radio communications this impedes response capabilities as more personnel are required to manually carry equipment into remote locations.</li> </ul>

*Note: The information on this worksheet should be considered in conjunction with the information on all other worksheets, and not in isolation. Worksheet 10 allows fire departments to consider all of the information on all worksheets together in order to make decisions about the provision of fire protection services in their municipality/community.*

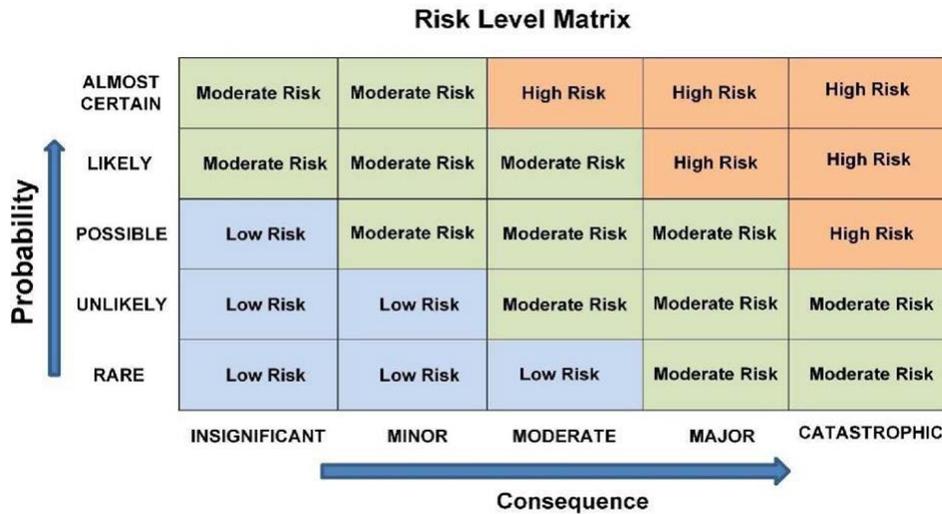
## Worksheet 2: Building Stock Profile

Given the history of St. Marys, the building stock profile, specifically in the downtown core is comprised of many historical buildings. However, there is also a mix of newer build residential, industrial and commercial development throughout St. Marys.

This worksheet reviews the building stock of St. Marys and identifies the issues and concerns that will impact the delivery of fire protection services.



View of Queen Street East, St. Marys.





Opera House, St. Marys.

Occupancy Classification		Issues/Concerns (i.e. age of buildings; use of buildings; building density; height and area; historic and culturally significant buildings; etc.)	Probability (refer to Table 1 for suggested probability levels)	Consequences (refer to Table 2 for suggested consequence levels)	Assigned Risk Level (refer to the Risk Level Matrix for suggested levels)
Group A	Assembly	<ul style="list-style-type: none"> <li>• There are 21 Assembly occupancies in St. Marys</li> <li>• Heavy timber construction</li> <li>• High fire load</li> <li>• High occupancy</li> <li>• Historical significance</li> </ul>	Possible	Moderate	Moderate Risk
Group B	Detention Occupancy	<ul style="list-style-type: none"> <li>• There are no detention centers in St. Marys</li> </ul>	N/A	N/A	N/A
	Care and Treatment / Care	<ul style="list-style-type: none"> <li>• There are two long term care facilities in St. Marys.</li> <li>• Elderly residents with mobility and cognitive</li> <li>• Homes that were not required to upgrade with sprinklers</li> </ul>	Possible	Major	Moderate Risk
Group C	Single Family	<ul style="list-style-type: none"> <li>• Lack of a home escape plan.</li> <li>• Lack of fire extinguishers.</li> <li>• Lack of residential sprinklers.</li> <li>• Many structures of an older age (balloon construction).</li> <li>• Hoarding or poor housekeeping practices.</li> <li>• Many homes in remote areas of the Town.</li> </ul>	Almost Certain	Major	High Risk

Occupancy Classification		Issues/Concerns (i.e. age of buildings; use of buildings; building density; height and area; historic and culturally significant buildings; etc.)	Probability (refer to Table 1 for suggested probability levels)	Consequences (refer to Table 2 for suggested consequence levels)	Assigned Risk Level (refer to the Risk Level Matrix for suggested levels)
	Multi-unit Residential	<ul style="list-style-type: none"> <li>• There are 505 Multi-Unit Residential occupancies in St. Marys</li> <li>• High occupancy</li> <li>• Lack of an escape plan</li> <li>• Lack of, or inoperable fire extinguishers, and knowledge on their operation</li> <li>• Not constructed to Ontario Building Code or Ontario Fire Code Standards</li> </ul>	Possible	Moderate	Moderate Risk
	Hotel / Motel	<ul style="list-style-type: none"> <li>• There is one Inn in St. Marys (Westover)</li> </ul>	N/A	N/A	N/A
	Mobile Homes and Trailers	<ul style="list-style-type: none"> <li>• There are no mobile homes and trailers in St. Marys</li> </ul>	N/A	N/A	N/A
	Other				
<b>Groups D &amp; E</b>	Business & Personal Service / Mercantile	<ul style="list-style-type: none"> <li>• There are 287 Businesses &amp; Personal Services / mercantile occupancies in St. Marys</li> <li>• Small local business</li> </ul>	Possible	Major	Moderate Risk

Occupancy Classification		Issues/Concerns (i.e. age of buildings; use of buildings; building density; height and area; historic and culturally significant buildings; etc.)	Probability (refer to Table 1 for suggested probability levels)	Consequences (refer to Table 2 for suggested consequence levels)	Assigned Risk Level (refer to the Risk Level Matrix for suggested levels)
		<ul style="list-style-type: none"> <li>Possible heavy timber construction or common basements</li> </ul>			
<b>Group F</b>	Industrial	<ul style="list-style-type: none"> <li>There are 43 Industrial Occupancies in St. Marys</li> <li>Unknown chemicals on-site.</li> <li>Lack of current emergency plan.</li> <li>High fire loads.</li> <li>Lack of sprinklers and alarm systems (not required by code).</li> <li>Quarries with high explosives on-site.</li> </ul>	Possible	Major	Moderate Risk

*Note: The information on this worksheet should be considered in conjunction with the information on all other worksheets, and not in isolation. Worksheet 10 allows fire departments to consider all of the information on all worksheets together in order to make decisions about the provision of fire protection services in their municipality/community*

### Worksheet 3: Critical Infrastructure Profile

Critical infrastructure includes electricity distribution, water distribution, telecommunications, hospitals, and airports.

Identified Critical Infrastructure	Issues/Concerns
Electricity transmission and distribution	<ul style="list-style-type: none"> <li>• Hydro lines go down.</li> <li>• Fires within transformer stations and on poles.</li> <li>• Adverse effect to commerce if power is out.</li> </ul>
Radio Communications	<ul style="list-style-type: none"> <li>• Effects multiple departments of the Municipality</li> <li>• Lack of means to notify first responders.</li> <li>• Lack of communications if communications center must be evacuated and moved to a backup location.</li> <li>• Very poor coverage in areas of the Town with no contact with fire service communication dispatch center.</li> <li>• Lack of uninterrupted power supply to radio systems and computers.</li> </ul>
Telecommunications	<ul style="list-style-type: none"> <li>• Telephone lines, cell and pager towers, radio towers &amp; internet go down/ communications compromised for both 911 service dispatching &amp; Emergency Services operations.</li> <li>• Lack of means of notifying first responders.</li> <li>• Commerce relies on operating telephone lines to complete transactions.</li> <li>• Lack of cell phone coverage throughout the Town. Many areas do not have any coverage at all.</li> </ul>
Hospital	<ul style="list-style-type: none"> <li>• Large number of immobile people at risk if a fire occurs up to 20 patients</li> </ul>
Natural Gas (NG)	<ul style="list-style-type: none"> <li>• Concerns are leaks in transmission lines.</li> <li>• Gas company infrastructure failures.</li> <li>• Lack of NG could affect areas of commerce such as restaurants.</li> <li>• Lack of gas would affect heating appliances.</li> </ul>

Identified Critical Infrastructure	Issues/Concerns
Continuity of Government	<ul style="list-style-type: none"> <li>• Municipal government closed due to extreme weather events, cyber event, health emergency, disrupted power supply.</li> </ul>
Financial Institutions	<ul style="list-style-type: none"> <li>• Disruption to commerce due to power failure, weather events, cyber event, health emergency,</li> <li>• Disruption in computer system that prevents other businesses from operating/completing transactions.</li> </ul>
Emergency Operations Centre	<ul style="list-style-type: none"> <li>• Unable to operate due to power disruption and lack of back-up power supply, computer system failure, health emergency, extreme weather event.</li> </ul>
Emergency Shelters	<ul style="list-style-type: none"> <li>• Lack of / or failure of generators</li> <li>• Evacuated due to hazardous materials incident.</li> <li>• Unable to accommodate mass numbers of civilians.</li> <li>• In operation for extended periods of time.</li> <li>• Food and accommodation/sleeping arrangements.</li> <li>• Lack of adequate quantities of potable water.</li> </ul>
Sanitary Sewage Collection System(s) / Pumping Stations	<ul style="list-style-type: none"> <li>• Sewage back up in homes; environmental / waterway contamination.</li> </ul>
Food Distribution / Grocery Stores	<ul style="list-style-type: none"> <li>• Loss of power; equipment failure; supply loss to community could impact residents basic living conditions (food &amp; water).</li> </ul>
Fuel Distribution / Gas Stations	<ul style="list-style-type: none"> <li>• Loss of power; equipment failure; supply loss to community could impact mobility; environmental hazards, spills, highly flammable petroleum products</li> </ul>
Post Office	<ul style="list-style-type: none"> <li>• Equipment failure / Limited personnel; Mail delivery stoppage / delay(s) in delivering essential mail (cheques, etc.)</li> </ul>
Banks & Trust Companies	<ul style="list-style-type: none"> <li>• Loss of power; equipment failure; service disruptions to residents.</li> </ul>
Highways / Roadways / Railways	<ul style="list-style-type: none"> <li>• Extreme weather conditions / accidents could impact the operation of the roadway/railway; commuting &amp; freight distribution service disruptions; environmental disasters; etc.</li> </ul>

Identified Critical Infrastructure	Issues/Concerns
Snow Removal Services / Town & High Road Maintenance	<ul style="list-style-type: none"> <li>• Extreme weather conditions / Equipment failure; Limited personnel could impact service.</li> </ul>
Radio Station	<ul style="list-style-type: none"> <li>• Loss of Power; equipment failure; broadcasting disruptions to residents.</li> </ul>

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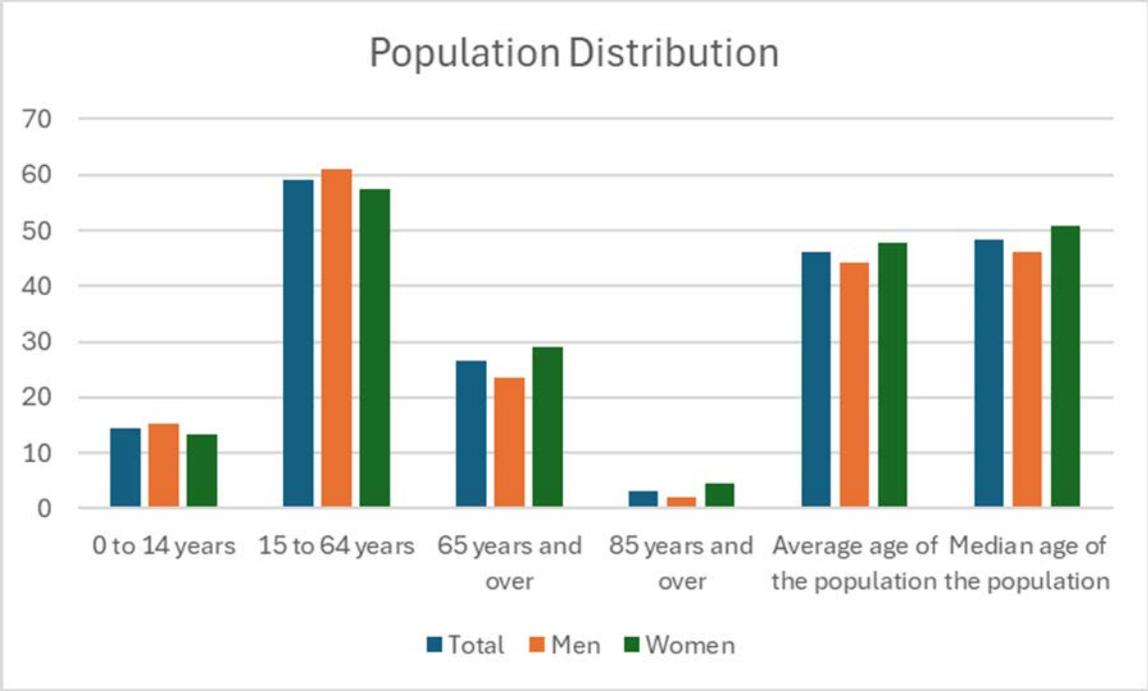
## Worksheet 4a: Demographic Profile

The data found within this profile are collated from the Government of Canada's 2021 Census.

Ages of Population	# of People	% of Total Population
0 to 4 years	305	4.1
5 to 9 years	355	4.8
10 to 14 years	405	5.5
15-19 years	405	5.5
20 to 24 years	325	4.4
25 to 29 years	385	5.2
30 to 34 years	410	5.5
35 to 39 years	390	5.3
40 to 44 years	410	5.5
45 to 49 years	445	6.0
50 to 54 years	420	5.7
55 to 59 years	620	8.4
60 to 64 years	560	7.6
65 to 69 years	580	7.8
70 to 74 years	490	6.6
75 to 79 years	315	4.3
80 to 84 years	330	4.5
85 to 89 years	240	4.5
<b>Total Population</b>	<b>7,390</b>	<b>100%</b>

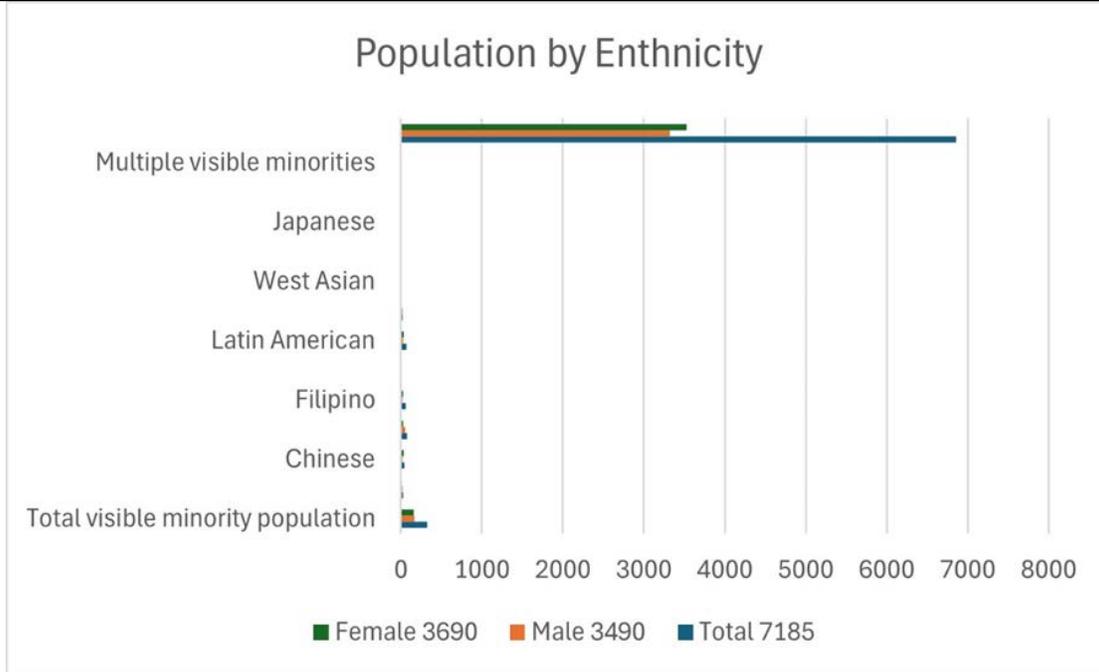
### Population Distribution

Total - Distribution (%) of the population by broad age groups - 100% data	Total	Men	Women
0 to 14 years	14.4	15.4	13.4
15 to 64 years	59.1	60.9	57.4
65 years and over	26.5	23.6	29
85 years and over	3.2	2	4.4
Average age of the population	46.1	44.1	47.8
Median age of the population	48.4	46	50.8



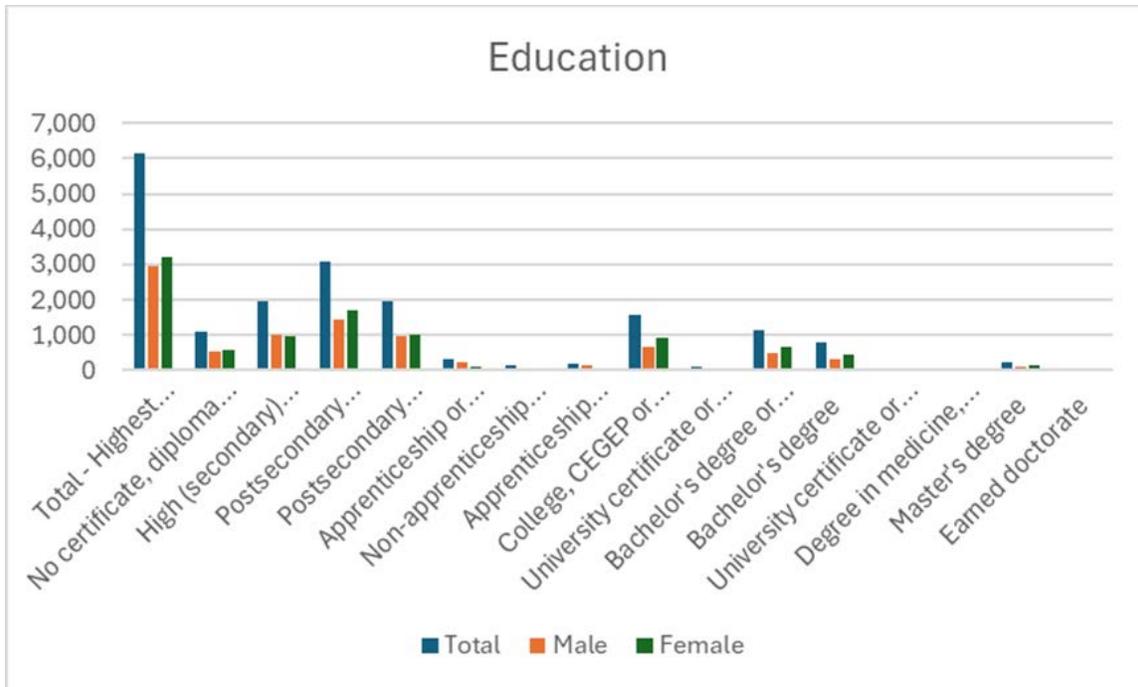
### Breakdown of Population by Ethnicity

Total - Visible minority for the population in private households - 25% sample data	Total 7185	Male 3490	Female 3690
Total visible minority population	325	165	155
South Asian	25	15	10
Chinese	45	15	35
Black	75	50	25
Filipino	55	20	25
Arab	0	0	0
Latin American	65	30	35
Southeast Asian	20	20	0
West Asian	0	0	0
Korean	0	0	0
Japanese	0	0	0
Visible minority, n.i.e.	0	0	0
Multiple visible minorities	0	0	0
Not a visible minority	6,860	3,320	3,530



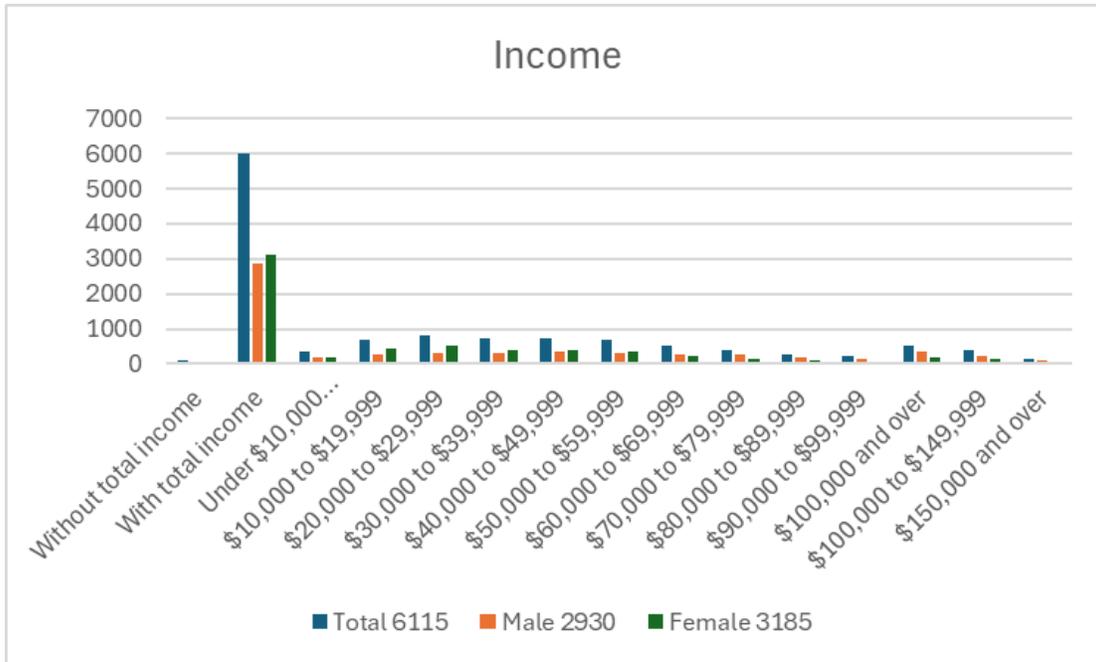
## Education

Highest certificate, diploma or degree	Total	Male	Female
Total - Highest certificate, diploma or degree for the population aged 15 years and over in private households - 25% sample data	6,145	2,945	3,200
No certificate, diploma or degree	1,075	530	555
High (secondary) school diploma or equivalency certificate	1,970	995	975
Postsecondary certificate, diploma or degree	3,095	1,420	1,675
Postsecondary certificate or diploma below bachelor level	1,965	940	1,025
Apprenticeship or trades certificate or diploma	315	215	95
Non-apprenticeship trades certificate or diploma	120	60	60
Apprenticeship certificate <sup>169</sup>	195	155	35
College, CEGEP or other non-university certificate or diploma	1,550	655	900
University certificate or diploma below bachelor level	100	70	30
Bachelor's degree or higher	1,130	480	650
Bachelor's degree	785	320	460
University certificate or diploma above bachelor level	65	40	30
Degree in medicine, dentistry, veterinary medicine or optometry	30	10	20
Master's degree	225	105	125
Earned doctorate	15	0	10



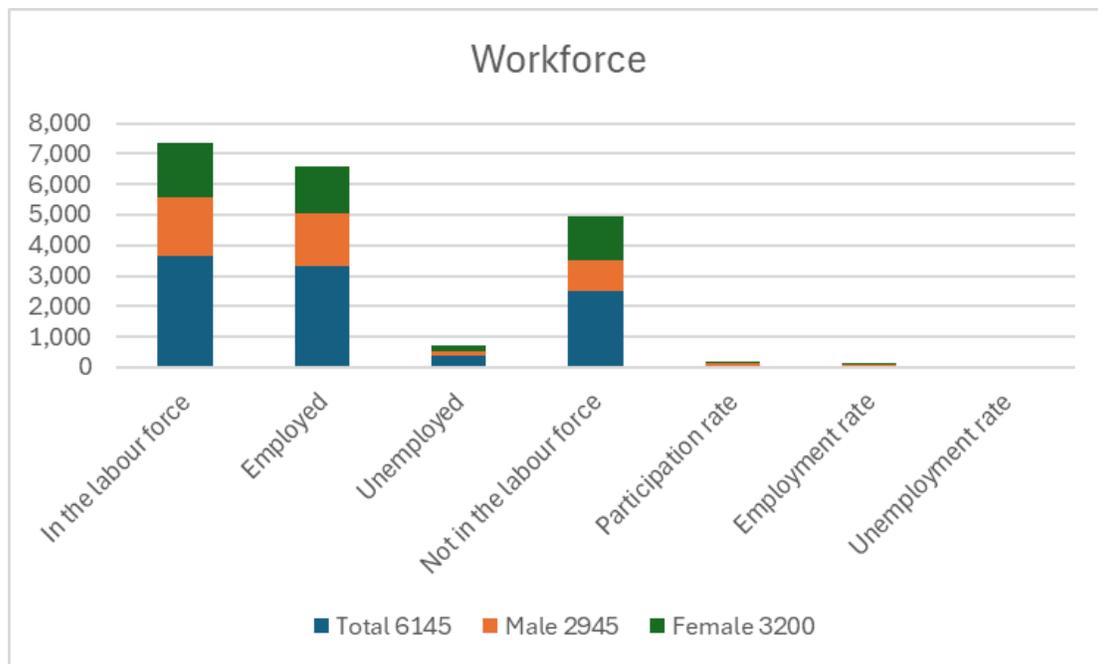
### Socioeconomic Breakdown of Income

Total - Total income groups in 2020 for the population aged 15 years and over in private households - 100% data	Total	Male	Female
Without total income	120	45	75
With total income	6,000	2,885	3,115
Under \$10,000 (including loss)	370	175	200
\$10,000 to \$19,999	695	250	445
\$20,000 to \$29,999	830	300	530
\$30,000 to \$39,999	730	325	405
\$40,000 to \$49,999	745	335	415
\$50,000 to \$59,999	685	325	365
\$60,000 to \$69,999	505	260	245
\$70,000 to \$79,999	410	255	155
\$80,000 to \$89,999	270	170	95
\$90,000 to \$99,999	215	140	80
\$100,000 and over	535	355	185
\$100,000 to \$149,999	390	240	150
\$150,000 and over	145	110	30



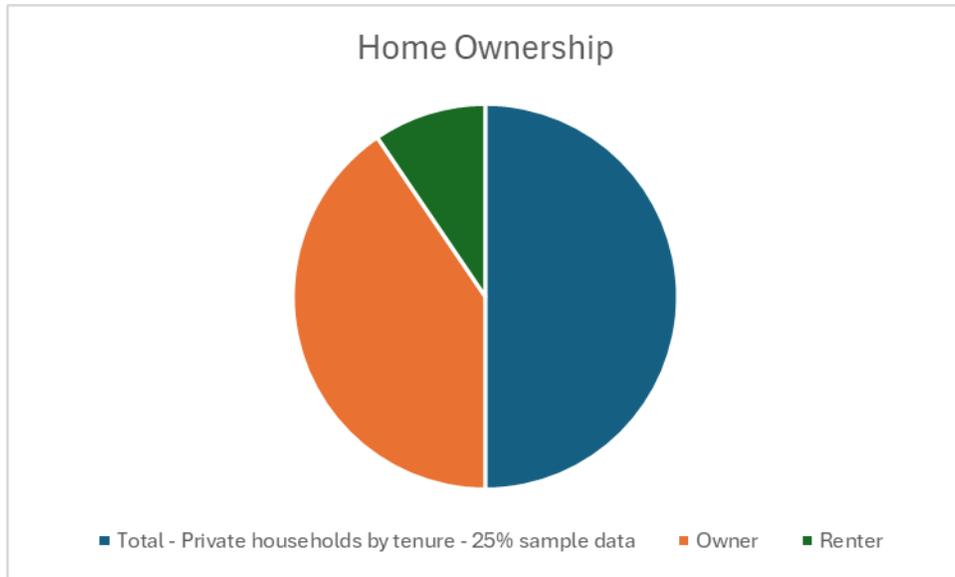
### Workforce

<b>Total - Population aged 15 years and over by labour force status - 25% sample data</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
	<b>6,145</b>	<b>2,945</b>	<b>3,200</b>
In the labour force	3,670	1,925	1,745
Employed	3,300	1,750	1,555
Unemployed	370	175	195
Not in the labour force	2,480	1,020	1,455
Participation rate	59.7	65.4	54.5
Employment rate	53.7	59.4	48.6
Unemployment rate	10.1	9.1	11.2



### Home Ownership

Total - Private households by tenure - 25% sample data	3,130
Owner	2,535
Renter	595



## Worksheet 4b: Demographic Profile

.Identified Demographic Group	Issues / Concerns
Seniors' Population	<ul style="list-style-type: none"> <li>• There are several seniors living in the community.</li> <li>• Of the total population, 23.5% are seniors over the age of 65.</li> <li>• It is forecasted that the number of seniors will increase over the next 10 years as the baby boomers retire.</li> <li>• Some of the seniors will have mobility and cognitive issues that may require constant care.</li> <li>• Four Seniors apartments Rotary, Furtney, Stoneridge and Church Street.</li> <li>• Two Long-term care and retirement living facilities Wildwood Care Centre (60 Long-term and 24 retirement) and Kingsway Lodge (58 Long-term, 30 retirement, 51 residence independent apartments).</li> </ul>
Visible Minority Populations	<ul style="list-style-type: none"> <li>• Language barriers.</li> <li>• Cultural traditions that present fire safety concerns.</li> <li>• May lack knowledge on fire safety matters.</li> <li>• May lack knowledge on fire escape plan.</li> <li>• Outdated or absent residential alarms.</li> </ul>

.Identified Demographic Group	Issues / Concerns
Increased population of summer tourists	<ul style="list-style-type: none"> <li>• How does the fire department reach this audience with fire safety messages if they don't live in the community.</li> <li>• The number of local natural attractions such as Wildwood Lake, Thames River lakes, two Quarries campgrounds and cottages bring numbers of non- permanent residents.</li> <li>• Fire and Life Safety messaging will require many means of delivery such as social media, educational pamphlets, ads in newspapers, scheduled Camp and children's Day Camp visits by fire prevention staff, By- law officers etc.</li> <li>• The Swimming Quarry draws in 30,000 people within two months (July - August).</li> <li>• It's estimated that 75% - 80% are from out of town.</li> <li>• Wildwood Conservation Area covers 3,200 Acres with 30 kilometers of trails and a 7- kilometer-long reservoir. The campgrounds have 386 campsites (247 Seasonal, 135 overnight &amp; 4 back country on the reservoir.</li> <li>• Between 7,000 and 10,000 people visit each season.</li> <li>• There are 24 cottages.</li> <li>• Camping season is from May 1 until October 20 and during that time frame approximately 75,000 visit the conservation area each year.</li> </ul>
General Population	<ul style="list-style-type: none"> <li>• The population continues to grow as more subdivisions are built.</li> <li>• Population growth is estimated at approximately 8,962 new residents between 2024 and 2034.</li> <li>• Increased population will result in an increase in fire call volume.</li> <li>• May live in illegal second units.</li> </ul>

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## Worksheet 5: Hazard Profile

Identified Hazard	Probability (refer to Table 1 for suggested probability levels)	Consequence (refer to table 2 for suggested consequence levels)	Assigned Risk Level (refer to Risk Level Matrix for suggested risk levels)
Ice storm (power interruptions/ disruptions in communications/ delayed access)	Possible	Minor	Moderate
Flood (obstructed access/increased calls for rescue/assistance)	Almost Certain	Moderate	Moderate
Extreme Temperatures	Possible	Minor	Moderate
Wildland Urban-Interface Fires	Possible	Moderate	Moderate
Utility Disruption	Almost Certain	Moderate	Moderate
Communications Disruption	Possible	Minor	Minor
Snowstorm/Blizzard/Hail	Possible	Minor	Moderate
Severe Wind Event - Tornado	Possible	Catastrophic	High
Hazardous Materials Event	Possible	Moderate	Moderate
Drought - Low Water	Possible	Minor	Moderate
Potable Water Emergency Wells	Possible	Moderate	Moderate
Critical Infrastructure Failure	Possible	Moderate	Moderate
Influenza Outbreak	Likely	Major	High
Road Incident - Mass Casualty	Possible	Moderate	Moderate
Cyber Attack on Municipal Servers	Possible	Major	Moderate

<b>Identified Hazard</b>	<b>Probability</b> (refer to Table 1 for suggested probability levels)	<b>Consequence</b> (refer to table 2 for suggested consequence levels)	<b>Assigned Risk Level</b> (refer to Risk Level Matrix for suggested risk levels)
Earthquake/Landslide	Minor	Unlikely	Low
Severe Thunderstorm	Likely	Moderate	Moderate
Erosion	Minor	Possible	Moderate
Large Fire	Likely	Major	High
High Angle Rescue	Unlikely	Minor	Low
Trench Rescue	Possible	Major	Moderate
Special Events i.e. Fire Scene Crowd Control, Stage/Viewing	Rare	Moderate	Low
Mail Delivery	Rare	Minor	Low
Explosion - Quarry	Possible	Major	Moderate
Landslide - Quarry	Possible	Major	Moderate
Pet Food Manufacturer - Fire - Dust Explosion	Possible	Major	Moderate
Motor Vehicle Collisions	Likely	Major	High
Aircraft Crash	Unlikely	Major	Moderate

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Worksheet 6: Public Safety Response Profile

Identified Public Safety Response Agency	Types of Incidents They Respond To	What is their Role at the Incident	Issues / Concerns
Stratford Police, Ontario Provincial Police	<ul style="list-style-type: none"> <li>• MVCs on network of roads, streets, highways.</li> <li>• Fire scenes.</li> <li>• Acts of crime, violence &amp; terrorism.</li> <li>• Emergency Response Plan initiation.</li> <li>• Search &amp; rescue (land &amp; water)</li> </ul>	<ul style="list-style-type: none"> <li>• Scene control, traffic control, investigations.</li> <li>• Establish perimeters.</li> <li>• Canine services.</li> <li>• Coordinate CRCC / search &amp; rescue.</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
Perth County Paramedic Service	<ul style="list-style-type: none"> <li>• All types of medical calls</li> <li>• Fire stand-by</li> <li>• Mass casualty</li> <li>• Emergency Response Plan initiation</li> </ul>	<ul style="list-style-type: none"> <li>• Take control and provide directions, upon arrival, in the treatment of the sick and injured.</li> <li>• Triage patients at mass casualty incident.</li> <li>• Transport casualties to hospital.</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
Outside / Neighbouring Fire Department	<ul style="list-style-type: none"> <li>• Automatic or Mutual Aid Incidents</li> <li>• Respond to structure fires with tanker support in</li> </ul>	<ul style="list-style-type: none"> <li>• Support role to requesting Fire department.</li> <li>• Fire Suppression</li> <li>• Cover stations directly</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>

Identified Public Safety Response Agency	Types of Incidents They Respond To	What is their Role at the Incident	Issues / Concerns
	specified areas.	involved with the incident	
St John Ambulance	<ul style="list-style-type: none"> <li>• Public events in which large number of people in attendance</li> </ul>	<ul style="list-style-type: none"> <li>• Supporting Perth County Paramedic Service</li> </ul>	<ul style="list-style-type: none"> <li>• They are not permitted to transport casualties, but able to render medical aid to those injured or ill.</li> </ul>
OFMEM	<ul style="list-style-type: none"> <li>• Suspicious fires,</li> <li>• Any fire in which there is either a civilian or fire fighter fatality,</li> <li>• High dollar loss fires</li> <li>• Fires at retirement or nursing homes</li> </ul>	<ul style="list-style-type: none"> <li>• Investigation Lead Agency working in conjunction with police</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>

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## Worksheet 7: Community Services Profile

Community Service Agencies	Type of Assistance they Can Provide
Canadian Red Cross	<ul style="list-style-type: none"> <li>• Temporary shelter, clothing, food following an incident</li> </ul>
Service Clubs (Lions Club, Kinsmen, Rotary)	<ul style="list-style-type: none"> <li>• Services in-kind</li> <li>• (e.g. funding / physical labour / facilities)</li> </ul>
St. Marys District Collegiate and Vocational Institute	<ul style="list-style-type: none"> <li>• Emergency Shelter</li> </ul>
Local Grocer Retailers	<ul style="list-style-type: none"> <li>• Food Distribution</li> </ul>
Murray Bus Lines	<ul style="list-style-type: none"> <li>• Transportation</li> </ul>
Royal Canadian Legion	<ul style="list-style-type: none"> <li>• Food during evacuations, disaster relief</li> </ul>
Salvation Army	<ul style="list-style-type: none"> <li>• Food, clothing, shelter during a disaster</li> </ul>
Local Churches	<ul style="list-style-type: none"> <li>• Food during evacuations, disaster relief</li> </ul>
Social Services	<ul style="list-style-type: none"> <li>• Food, clothing, shelter and information services</li> </ul>

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## Worksheet 8: Economic Profile

Identified Occupancy	Key Risk	Probability (refer to Table 1 for suggested probability levels)	Consequences (refer to Table 2 for suggested consequence levels)	Assigned Risk Level (refer to the Risk Level Matrix for suggested risk levels)
Vulnerable Occupancies (x2)	Fire	Rare	Minor	Low
Vulnerable Occupancies	Weather Event	Possible	Moderate	Moderate
Pet Food Production Facility	Fire	Possible	Major	Moderate
Pet Food Production Facility	Weather Event	Possible	Major	Moderate
Pet Food Production Facility	Dust Explosion	Possible	Major	Moderate
Grocery Stores	Fire	Possible	Major	Moderate
Grocery Stores	Weather Event	Possible	Minor	Moderate
Grocery Stores	Power Outage	Likely	Major	High
Grocery Stores	Telecommunications Disruption	Possible	Moderate	Moderate
Grocery Stores	Natural Gas Disruption	Unlikely	Minor	Low
Restaurants/Fast Food Outlets	Weather Event	Possible	Minor	Moderate
Restaurants/Fast Food Outlets	Telecommunications Disruption	Possible	Moderate	Moderate
Restaurants/Fast Food Outlets	Power Outage	Likely	Moderate	Moderate
Restaurants/Fast Food Outlets	Fire	Possible	Major	Moderate
Small Business	Fire	Possible	Major	Moderate
Small Business	Weather Event	Possible	Minor	Moderate
Small Business	Power Outage	Likely	Moderate	Moderate

<b>Identified Occupancy</b>	<b>Key Risk</b>	<b>Probability</b> (refer to Table 1 for suggested probability levels)	<b>Consequences</b> (refer to Table 2 for suggested consequence levels)	<b>Assigned Risk Level</b> (refer to the Risk Level Matrix for suggested risk levels)
Small Business	Telecommunications Disruption	Unlikely	Minor	Low
Municipal Operations	Weather Event	Possible	Major	Moderate
Municipal Operations	Flooding	Likely	Major	High
Municipal Operations	Power Outage	Likely	Major	High
Municipal Operations	Cyber Attack	Possible	Catastrophic	High
Municipal Operations	Fire	Possible	Major	Moderate
Municipal Operations	Wildland Fires	Likely	Minor	Moderate
Municipal Operations	Road Closure of Long Duration	Possible	Insignificant	Low
Municipal Arena	Power Outage	Possible	Insignificant	Low
Municipal Arena	Weather Event	Possible	Moderate	Moderate
Municipal Arena	Natural Gas Disruption	Unlikely	Minor	Low
Schools	Fire	Possible	Major	Moderate
Schools	Weather Event	Possible	Moderate	Moderate
Schools	Natural Gas Disruption	Unlikely	Moderate	Moderate
Schools	Power Outage	Likely	Moderate	Moderate
Schools	Potable Water Emergency	Unlikely	Moderate	Moderate
Schools	Influenza Outbreak	Possible	Moderate	Moderate
Municipality	Hazardous Materials Incident	Possible	Moderate	Moderate
Quarry	Explosion	Possible	Moderate	Moderate
Quarry	Landslide	Possible	Minor	Moderate

Identified Occupancy	Key Risk	Probability (refer to Table 1 for suggested probability levels)	Consequences (refer to Table 2 for suggested consequence levels)	Assigned Risk Level (refer to the Risk Level Matrix for suggested risk levels)
Campgrounds/Seasonal Lodging	Fire	Possible	Moderate	Moderate
Campgrounds/Seasonal Lodging	Weather Event	Possible	Moderate	Moderate
Financial Institutions	Telecommunications Disruption	Possible	Moderate	Moderate
Financial Institutions	Fire	Possible	Moderate	Moderate
Financial Institutions	Cyber Attack	Rare	Insignificant	Low

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**Worksheet 9a: Past Loss and Event History Profile**

Occupancy Classification		YEAR: 2020					YEAR: 2021					YEAR: 2022				
		# of Fires	\$ Loss	# of Injuries	# of Deaths	Causes	# of Fires	\$ Loss	# of Injuries	# of Deaths	Causes	# of Fires	\$ Loss	# of Injuries	# of Deaths	Causes
<b>Group A</b>	Assembly	1	0	0	0	Open flame tools, smokers articles	0	0	0	0	N/A	0	0	0	0	N/A
<b>Group B</b>	Detention	0	0	0	0	N/A	0	0	0	0	N/A	0	0	0	0	N/A
	Care and Treatment / Care	0	0	0	0	N/A	0	0	0	0	N/A	0	0	0	0	N/A
<b>Group C</b>	Single Family	1	0	0	0	Heating equipment, chimney etc.	3	\$660,000	0	0	Electrical distribution on equipment	2	\$186,000	0	0	Electrical distribution on equipment
	Multi-unit Residential	2	\$51,000	0	0	Electrical distribution	0	0	0	0	N/A	0	0	0	0	N/A
	Hotel / Motel	0	0	0	0	N/A	0	0	0	0	N/A	0	0	0	0	N/A
	Mobile Homes & Trailers	0	0	0	0	N/A	0	0	0	0	N/A	0	0	0	0	N/A
	Other	0	0	0	0	N/A	0	0	0	0	N/A	0	0	0	0	N/A
<b>Group D &amp; E</b>	Business & Personal Service / Mercantile	0	0	0	0	N/A	0	0	0	0	N/A	3	0	0	0	Open flame tools, smoke r's

		YEAR: 2020					YEAR: 2021					YEAR: 2022				
Occupancy Classification		# of Fires	\$ Loss	# of Injuries	# of Deaths	Causes	# of Fires	\$ Loss	# of Injuries	# of Deaths	Causes	# of Fires	\$ Loss	# of Injuries	# of Deaths	Causes
																articles
<b>Group F</b>	Industrial	1	0	0	0	Processing Equipment	1	\$5,000	0	0	Processing Equipment	2	\$410,000	0	0	Other electrical, mechanical
<b>Other</b>		1	\$10,000	0	0	Other electrical, mechanical	0	0	0	0	N/A	2	\$11,500	0	0	Other electrical, mechanical
<b>Totals</b>		6	\$61,000	0	0		4	\$665,000	0	0		9	\$607,500	0	0	

*Note: The information on this worksheet should be considered in conjunction with the information on all other worksheets, and not in isolation. Worksheet 10 allows fire departments to consider all of the information on all worksheets together in order to make decisions about the provision of fire protection services in their municipality/community.*

## Worksheet 9b: Past Loss and Event History Profile

Non-Fire Emergency Calls						
	Year 1: 2020		Year 2: 2021		Year 3: 2022	
Non-Fire Emergency Calls	Total Number Of	% Of All Calls	Total Number Of	% Of All Calls	Total Number Of	% Of All Calls
	Calls		Calls		Calls	
Burning (controlled)	4	6%	7	8%	5	5%
CO False Calls	9	14%	21	23%	14	15%
False Fire Calls	32	49%	41	46%	43	47%
Medical/Resuscitator Calls	4	6%	10	11%	8	9%
Other Response	1	2%	1	1%	2	2%
Overpressure Rupture/Explosion	1	2%	3	3%	6	7%
Pre-Fire Conditions/No Fire	6	9%	3	3%	7	8%
Public Hazard	1	2%	3	3%	6	7%
Rescue	8	12%	4	4%	7	8%
<b>Totals</b>	<b>65</b>	<b>100%</b>	<b>90</b>	<b>100%</b>	<b>92</b>	<b>100%</b>

*Note: The information on this worksheet should be considered in conjunction with the information on all other worksheets, and not in isolation. Worksheet 10 allows fire departments to consider all of the information on all worksheets together in order to make decisions about the provision of fire protection services in their municipality/community.*

## Worksheet 10: Identifying Treatment Options for the Top Risks in the Community

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
<p><b>Geographic Profile</b></p>	<p>Body of water impacts training, equipment for response</p>	<p>Avoid and Mitigate Risk – Implement water/ice rescue training protocols, SOGs, policies and activities. Evaluate the needs of acquiring additional equipment specific to vessel-based ice rescues. This will include immersion suits, helmets, 1000’ floating ropes, inflatable vessel, PFD’s, etc.</p>
	<p>Body of water impacts response time</p>	<p>Accept Risk - Implement appropriate response protocols, SOGs, and activities</p>
	<p>Large Body of Water</p>	<p>Accept Risk – Maintain and update ice/water rescue training protocols, SOGs, policies and activities on an ongoing basis.</p> <p>Evaluate the need of updating equipment specific to ice/water rescues. Wildwood Lake could become a risk of flooding its shoreline when water levels are high. The Wildwood Damn is constantly monitored for high-water levels and controlled releases help to mitigate watersheds inland.</p>
	<p>Body of Water impacts training, equipment for response</p>	<p>Accept Risk – Implement appropriate response protocols, SOGs, and activities in the event access points may not be accessible at the time of an incident.</p> <p>Accept Risk – Review the required equipment, legislation, and regulations for the implementation of a summer water marine response. This would include the purchase of a boat, motor, trailer, safety equipment, emergency response equipment (medical and firefighting), specialized training and vessel registration. Maintain Mutual Aid Agreement with neighbouring fire services and their ice/water rescue team and equipment for a marine response.</p> <p>Conduct joint ice/water rescue training with neighbouring fire services.</p>

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
	Rivers and Creeks	Accept Risk – Maintain and update ice/water rescue training protocols, SOGs, policies and activities on an ongoing basis.
	Quarries	Accept Risk – Maintain and update ice/water rescue training protocols, SOGs, policies and activities on an ongoing basis.
	Wildland and Rock trails Wildwood Conservation Area	Avoid Risk - Implement appropriate public education on the dangers associated of climbing on rock high grounds and hiking in the wildlands. This could include signage, social media, and pamphlets. Place information ads in local papers.
	Grass / Wildland / Forests	Avoid and Mitigate Risk – Promote no burning fire bans and the outdoor burning by-law. Educate residents/campers on the importance of maintaining access routes into their property. Control vegetation growth along roadways. Promote safe campfire practices. Partner with UTRCA on safe burning practices, through public education opportunities.
	Road Network	<p>Avoid Risk – The network and condition of the roads in Perth South hampers the fire service from arriving at a fire call in a timely manner. Some roads may cause damage to fire apparatus is driven on too fast.</p> <p>Control vegetation growth along roads.</p> <p>Some roads could be closed for long duration due to extreme weather events. Landowners should be made aware of their responsibility in maintaining any private roads.</p> <p>A long-term road improvement strategy would improve the quality of the roads and improve fire service response times.</p>
	Fires	Avoid and Mitigate Risk - Increase public education on preventive maintenance due to design/construction/maintenance deficiencies, mechanical/electrical. fires,

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
		misuse of ignition source/materials first ignited
<b>Building Stock Profile</b>	Fires – industrial and commercial	<p>Avoid and Mitigate Risk – Industrial /commercial i.e. fires and the major impact they may cause to ongoing commerce in the area. Staff out of work, loss of business, other businesses see downturn in sales as residents could be out of work.</p> <p>Maintain frequency of fire inspections, enforcement and public education may assist in reducing the risk of fire occurring.</p>
	Fires – older buildings and structures	<p>Avoid and Mitigate Risk – Older buildings within older areas of rural communities. Heavier timber construction. Should be fire inspected annually and public education opportunities for building owners and staff on fire prevention, fire extinguisher use etc.</p>
	Residential Dwellings – lack of smoke and CO alarms, home escape plans, fire extinguishers, vacant and derelict structures, poor housekeeping practices	<p>Avoid and Mitigate Risk – Maintain aggressive public education initiatives promoting smoke /CO alarms, escape plans to the school children, fire extinguishers and residential sprinklers. Promote the need for well-maintained wood burning chimneys and their cleaning before the season begins.</p>
	Farmland – Vacant Structures	<p>Avoid Risk – Contact property owners to establish what the plans are for unused structures. Promote the need to securing and making safe vacant structures or the demolition of them</p>
	Heritage Structures	<p>Avoid Risk – Conduct fire inspections on an annual basis if the structure is occupied. Promote smoke alarms and fire extinguishers. Contact property owners to establish what the plans are for the vacant designated heritage structures. Promote the need to securing any vacant structures.</p>

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
	Vulnerable Occupancies	Avoid Risk – Implement public education on safe cooking and smoking practices. Know and practice escape routes out of their building. Address the needs of those that may have mobility and cognitive behavioral issues, in escaping a fire.
	Pet Food manufacturing facility	Avoid Risk – Possible large fires due to the nature of the food processing, dust explosions, multiple structures involved. Maintain ongoing fire inspections and act on violations. Provide public education of fire safety, housekeeping, and fire extinguisher training.
<b>Critical Infrastructure Profile</b>	Electricity	Accept Risk – Loss of power will adversely affect all forms of daily life. Businesses, schools, industries, residences, emergency services all rely heavily on power.
	Water	Accept Risk – Failure of maintaining potable drinking water from water supply system. Failure due to mechanical or human means will place the community at risk for public safety. Will affect health care, schools, commerce etc. If not corrected in a timely manner could lead to diseases or death.
	Telecommunications	Accept Risk – Loss of cell coverage throughout the Town or poor/no coverage in other areas.  The Town should work with cell phone communication companies to explore opportunities of improving coverage.
	Natural Gas	Accept Risk – Loss of supply of natural gas in the event of transmission line breakages. Work with local service authorities in relation to public education initiatives in such events.
	Continuity of Government	Avoid and Mitigate – During implementation of the emergency plan. Staff unable to attend work locations due to weather event, do they have access to the Town’s computer network from home and able to work from home. Emergency Operations Centre activated, but

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
		in the event of a power outage, delay in obtaining back-up power as no on-site generator
	Senior Citizens	Avoid Risk – It has been identified that seniors are looking at the St. Marys area as a great place to retire. They want a community that provides the services they may require, and ones that they could become involved in. This would be achieved by joining senior’s groups and service clubs. There will be the requirement to provide public education to the new residents.
<b>Demographic Profile</b>	Senior Citizens	<p>Avoid and Mitigate Risk – Through continued public education opportunities at Fairs, Friendship Centre club meeting, promotional events such as fire prevention week.</p> <p>Further Public Education opportunities should discuss the following topics of interest that relate to seniors.</p> <ul style="list-style-type: none"> <li>• Importance of working smoke and CO alarms</li> <li>• Safe cooking practices, dangers of using oils and grease for cooking.</li> <li>• Develop and practice an escape plan for their place of residency.</li> <li>• How to extinguish a cooking related fire</li> <li>• How to operate a fire extinguisher, conduct clinics</li> <li>• Prevent burns by not carrying burning pots and pans outside.</li> <li>• Prevent clothing from catching fire by not wearing flowing styled clothing near open flames.</li> </ul>
	Youth	Avoid and Mitigate – Fire Prevention staff will coordinate with Youth Center facilitators to schedule in house fire prevention training/briefings. This will allow Fire Prevention staff to promote fire safety,

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
		develop and practice home escape plan, and not to play with ignition sources.
	Schools	Avoid and Mitigate – Promote fire safety, develop and practice escape plans, not to play with ignition sources, conduct fire drills in the schools, promote fire prevention week through a contest for the best fire prevention poster or family escape plan. SMFD should develop and review pre-incident plans for all the schools.
	Seasonal Residents – Wildwood campgrounds	Avoid and Mitigate Risk – Aggressive public education initiative promoting smoke and CO alarms, escape plans, fire extinguishers and campfire safety.
	Local Residents – lines of communications	Avoid and Mitigate – Enhance lines of communication regarding open air burning permits, fireworks by-laws, public education, and fire prevention topics of interest. Provide updates on FD activities. Provide public Education literature within the tax bills when they are sent out or via social media.
	Fires	Avoid and Mitigate Risk – Through public education opportunities in schools by having children work on developing an escape plan in the home. Educating them on what to do when smoke alarms are activated. How to crawl on the floor through smoke.
<b>Hazard Profile</b>	Fires	Avoid and Mitigate Risk - Due to the time it will take to respond to areas furthest from the fire hall, the department should promote the three lines of defense to those residents. This could be done through public educations means along with the distribution of fire prevention educational material.
	Fires	Avoid and Mitigate Risk – The department should promote the value of residential sprinklers especially when new or major renovation construction takes place. Residential sprinklers save lives and property

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
		and will increase the value of one’s property and save money on fire insurance.
	Explosives Storage	Avoid Risk – Ensure safe storage and usage practices are in place. Develop and review pre-incident plans for each location. Request communication on when large quantities are being transported through the Town.
	Weather Event	Accept Risk – Tornadoes, Ice and snowstorms, extreme heat and cold events, intense rainstorms, flooding. Although these cannot be completely avoided, they can, in most cases be predicted, which will allow for public awareness releases.
	Motor Vehicle Collisions	Accept Risk – Mass casualties, road closures of long durations. Fire service to assess roads and frequency.
<b>Public Safety Response Profile</b>	Outside Fire Services	Transfer Risk - SMFD does not provide advanced hazardous materials or technical rescue response and mitigation. As such the department has entered into response agreements with GFL to provide such service(s).
	Outside Fire Services	Transfer Risk - SMFD does not provide technical rescues that include confined space, high angle rope, trench etc. As such the department would have to contact the Perth County Fire Coordinator to contact the PEOC to request such agencies that provide such service(s).
	St. Marys Fire Department	Avoid and Mitigate Risk - Like so many other fire services in Ontario, SMFD has problems with personnel being available to respond Monday to Friday from 8 a.m.to 5 p.m. Certain employers do not always allow volunteer firefighters to leave work to attend a call. As well firefighters work out of town. Therefore, daytime availability of fire fighters has diminished. SMFD should increase their staffing to at least 5 more firefighters with a

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
		recruitment focusing on new members who are available during daytime hours.
	St. Marys Fire Department – Fire Training	Avoid and Mitigate Risk – Provide live fire training to all the members of the department on annual basis to keep related skills up to an acceptable level.
	Perth County Paramedic Service	Accept and Mitigate Risk – Fire Chief should monitor response/arrival times of paramedic services and communicate concerns to the Paramedic Chief. The tiered medical agreement between the St. Marys Fire Department the Paramedic Service was recently reviewed and changes made accordingly to better serve the Town of St. Marys. SMFD promotes and takes advantage of any joint training opportunities.
	Owen Sound Police Dispatching Service	Accept and Mitigate Risk – In 2023 St. Marys Fire Department entered a 5-year contract with Owen Sound Police Services Dispatching Services to meet NFPA 1221, Compliance for Fire Communications Centers as well other concerns. Fire Chief should monitor dispatching services and contact dispatching services supervisor of any concerns.
<b>Community Services Profile</b> <b>Economic Profile</b>	No concerns	Accepted risk – There are many community groups who would be more than willing to assist at an incident if requested. If anything, the community.
	Electricity	Avoid and Mitigate Risk – Promote to business owners the advantages of having a standby generator in the event they lose power. By having a generator could prevent the loss of food due to spoilage, lost sales due to no means of completing transactions, lack of power to operate equipment, no lighting in the place of business.
<b>Community Services Profile</b>	Fires	Accepted Risk – Loss of business commerce and income to families due to fires. There is also the spin-off is loss of commerce to other non-affected businesses.

Mandatory Profiles	Top Risks or Issues / Concerns	Preferred Treatment Options
Past Loss and Event History Profile	Fires	Avoid and Mitigate Risk – Through public education on dangers of unattended cooking, uncleaned chimneys, older electrical and mechanical equipment not upgraded and lack of good housekeeping practices.
	Undetermined Causes for Fires	Avoid and Mitigate – Ensure members of the department have been trained to the National Fire Protection Associated Standard on Fire Cause Determination. Utilize the resources available through the OFMEM to determine causes. Note if there is a trend developing and act accordingly.

*Note: The information on this worksheet should be considered in conjunction with the information on all other worksheets, and not in isolation. Worksheet 10 allows fire departments to consider all of the information on all worksheets together in order to make decisions about the provision of fire protection services in their municipality/community.*

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