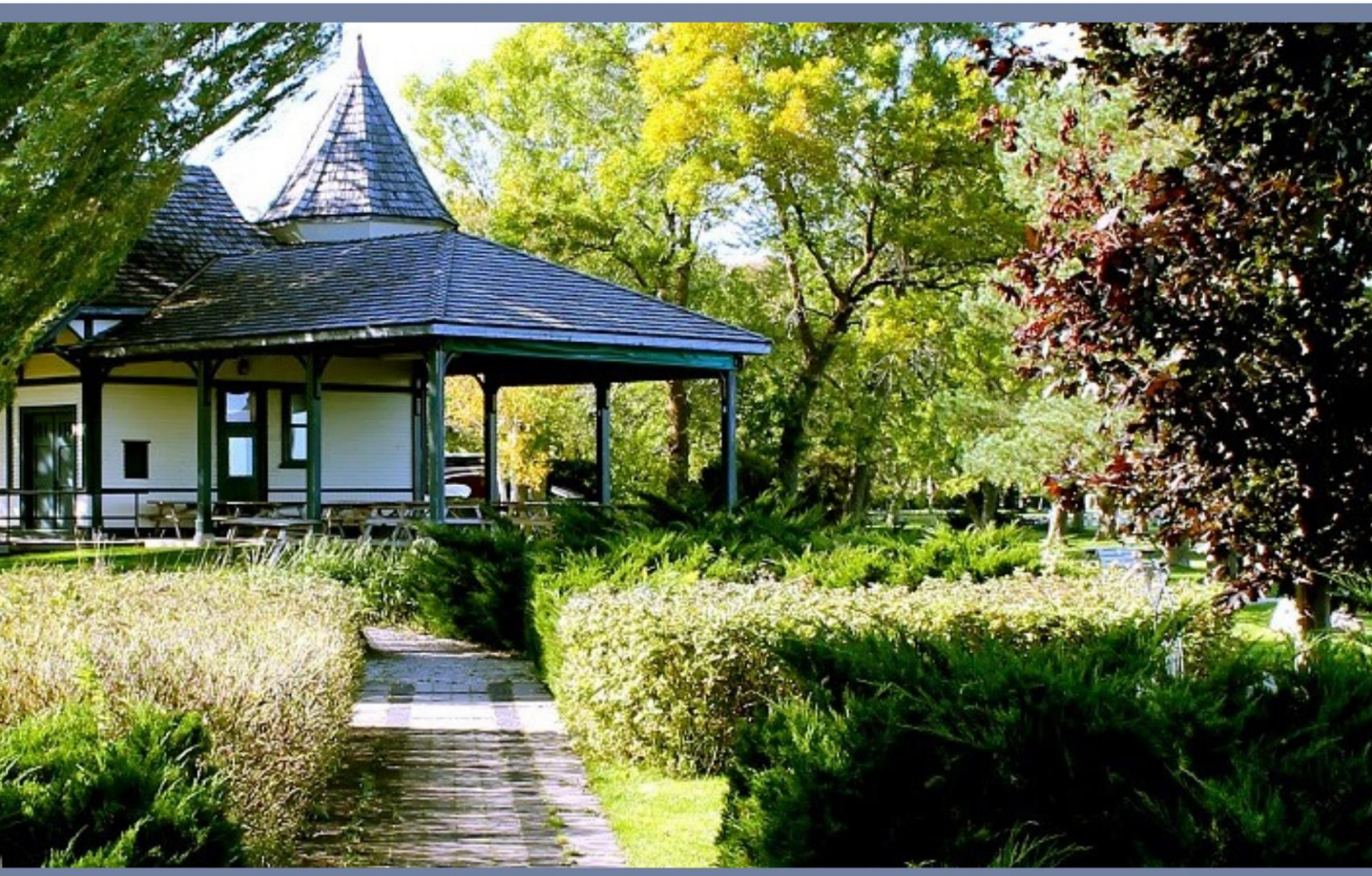
Town of South Bruce Peninsula

Community Risk Assessment



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Town of South Bruce Peninsula
Community Risk Assessment

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Cover image source: Town of South Bruce Peninsula website

Disclaimer

The Loomex Group has made every effort to ensure that the information provided in this community risk assessment is accurate and complete as of the date the document was finalized.

In order to ensure this community risk assessment remains current, the Town of South Bruce Peninsula should review the document annually. The town should also consider completing a new community risk assessment if its circumstances change significantly.

As per O. Reg. 378/18, each municipality must complete a new community risk assessment no later than five years after the day its previous community risk assessment was completed.

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Executive Summary

Purpose

In September 2023, the Town of South Bruce Peninsula contracted The Loomex Group to develop a community risk assessment ("**CRA**").

The CRA project had the following objectives:

- Ensure South Bruce Peninsula complies with O. Reg. 378/18, which requires every municipality in Ontario to complete a CRA by July 1, 2024.
- Identify and examine South Bruce Peninsula's public safety risks from a fire services perspective.
- Recommend strategies that South Bruce Peninsula and the South Bruce Peninsula Fire Department ("**the Department**") can use to mitigate the town's public safety risks.

Process

According to O. Reg. 378/18, there are nine community profiles that must be reviewed when developing a CRA. The Loomex Group completed those reviews by collecting various statistics about South Bruce Peninsula and then evaluating that information as per the instructions provided by the Ontario Fire Marshal ("**OFM**") as part of OFM-TG-02-2019.

In addition to reviewing statistics, The Loomex Group conducted site visits and met with stakeholders from South Bruce Peninsula in order to gain first-hand insights into the town's current and potential public safety risks.

Finally, The Loomex Group used a risk assessment tool to calculate the severity of each public safety risk it identified in South Bruce Peninsula. The Loomex Group then evaluated the administrative and operational concerns associated with each threat.

Findings

This CRA identifies and examines 12 public safety risks in South Bruce Peninsula that are real and measurable threats. Each risk is applicable to at least one of the nine community profiles reviewed during the CRA's development, and some risks are applicable to more than one profile.

Figure 1 illustrates the public safety risks identified in South Bruce Peninsula, ranked in order of their severity.

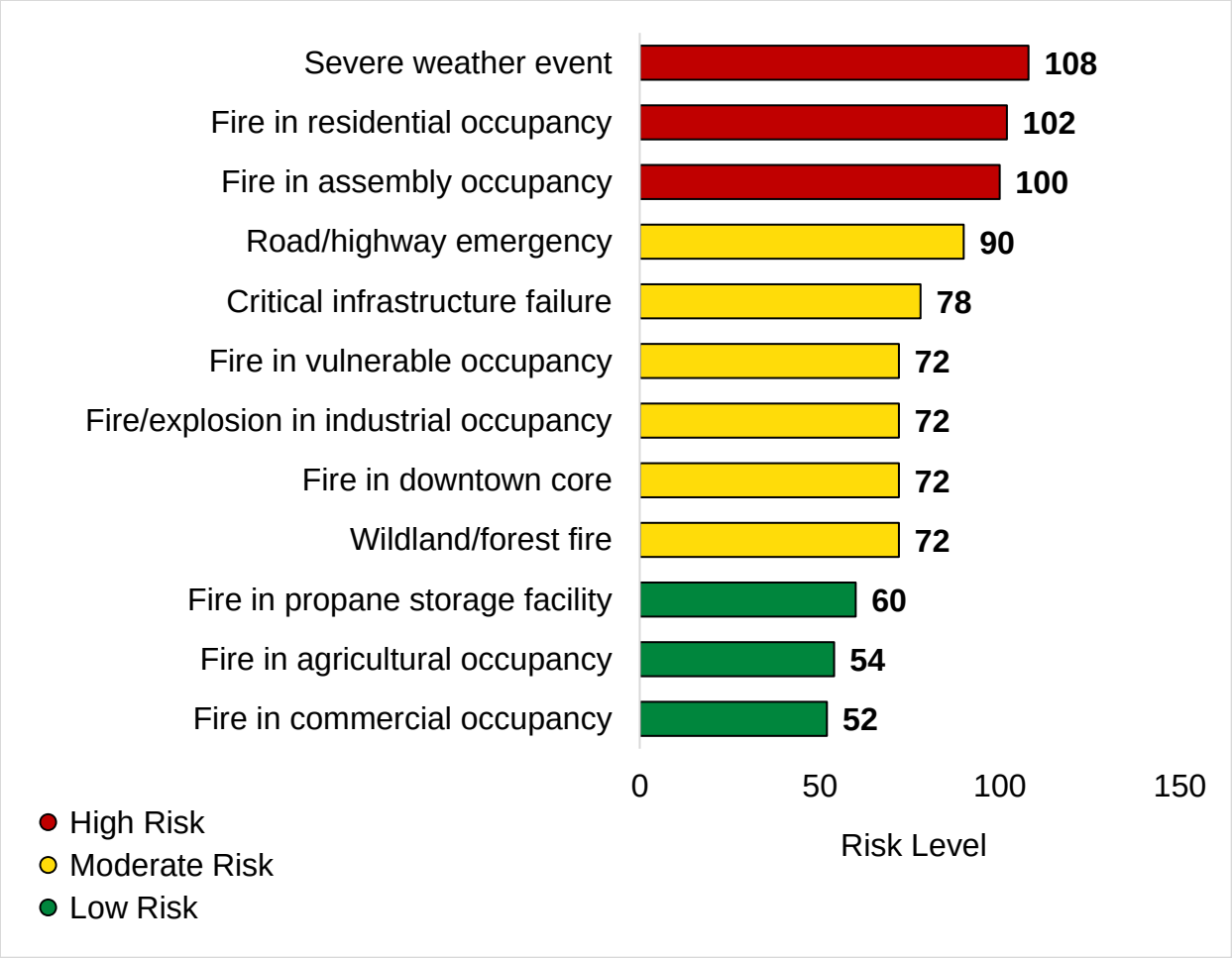

Figure 1. Public safety risks identified in South Bruce Peninsula.

In addition to the 12 risks, this CRA provides information about other concerns in South Bruce Peninsula that could not be included in a risk level matrix due to a lack of definite statistics. Those concerns are discussed throughout this document (as applicable) under the heading of “Potential Concerns.” It is important for South Bruce Peninsula and the Department to familiarize themselves with all concerns noted in this CRA, as they include possible threats and issues that may intensify the danger of the town’s identified public safety risks

Recommendations

The final step of this CRA’s development was the creation of a risk treatment plan (“**RTP**”) for each public safety risk identified in South Bruce Peninsula.

Each RTP includes:

- a summary of the Department’s current risk treatment measures and capabilities
- a summary of applicable administrative and operational concerns

- an overview of historical statistics about the risk and its impacts on the local community
- a consideration of the risk's potential future impacts on the community
- a recommended strategy to address the concerns associated with the risk

The Loomex Group based the strategies in the RTPs on the concept of the three lines of defence. The three lines of defence is a fire safety model that recommends using proactive fire prevention initiatives to help reduce the need for fire suppression services. The OFM endorses the three lines of defence model, and The Loomex Group believes that following the three lines of defence is the best way to protect communities from fires and other life safety threats.

Going forward, the Council of the Town of South Bruce Peninsula ("**Council**") and the Department should review the RTPs in this CRA and discuss implementing the recommended strategies into their operations.

1.0 Introduction

1.1 Community Risk Assessments: Context

On July 1, 2019, the Province of Ontario issued O. Reg. 378/18. According to O. Reg. 378/18, all Ontario municipalities must complete a CRA by July 1, 2024.

A CRA is a document that identifies and evaluates fire and life safety risks. Risks are defined as events that can harm any one or more of the following:

- communities
- organizations
- human health
- properties
- the environment

All municipalities should strive to manage and mitigate the risks identified in their CRAs. Failing to do so could lead to damaged property, tarnished reputations, lost lives, and other consequences. In order to help a municipality avoid potential consequences, a CRA recommends strategies and resources that the local fire department can use to implement effective risk mitigation measures.

1.2 Approach and Methodology

1.2.1 Guiding Principle

All recommendations in this CRA are based on the fire safety model called the three lines of defence:

1. **Public education and prevention**: Fire departments need to create programs that teach community members how to safeguard their lives and property. Typically, the programs should involve spreading awareness about the importance of fire safety and prevention measures.
2. **Fire safety standards and code enforcement**: Fire departments should establish programs that ensure all community buildings comply with the Ontario Fire Code ("**OFC**"). The programs also provide fire departments with a way to confirm whether applicable buildings are maintaining necessary life safety systems to protect against fire hazards.
3. **Emergency response**: Fire departments require firefighters with the training, knowledge, and skills needed to save lives, prevent injuries, and stop fires from spreading.

The goal of the three lines of defence is to encourage a proactive approach to community fire safety. Because emergency responses are required after an incident occurs, it is important to focus on the first two components of the three lines of defence before an emergency response becomes necessary. By focusing on fire prevention and public education programs, fire departments can help reduce the need for fire suppression services.

The Honourable John B. Webber first outlined the three lines of defence in the Report of the Public Inquiry into Fire Safety in Highrise Buildings (published in 1983). The OFM has since endorsed the model, including it as a vital part of OFM TG-02-2019 and other documents. The concept of the three lines of defence also aligns with the requirements of the Fire Protection and Prevention Act ("**FPPA**").

1.2.2 Data Collection Process

The content of this CRA is based on the findings of document reviews, site visits, and stakeholder engagement sessions.

Each form of data collection provided valuable insights into South Bruce Peninsula's operations and demographics, as well as the community's current and anticipated fire protection needs.

1.2.3 Document Development Process

As per O. Reg. 378/18, a CRA must review the following nine community profiles:

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

This CRA contains summaries of each community profile as they pertain to South Bruce Peninsula. The findings discussed in this document are based on statistics obtained from various reports and historical records, as well as insights provided by the Department's Fire Chief and Deputy Fire Chief.

The structure and focus of the community profiles discussed in this CRA adhere to the instructions contained in the worksheets that form part of OFM-TG-02-2019.

1.2.4 Likelihood Levels, Consequence Levels, and Risk Level Matrix

After identifying the public safety risks in South Bruce Peninsula, The Loomex Group determined the likelihood and consequence level of each threat.

The Loomex Group determined the likelihood and consequence levels of the identified public safety risks by using evaluation criteria developed by the OFM. A summary of the evaluation criteria is provided below.

Likelihood Levels

Table 1 shows how the OFM classifies risk likelihood levels.

Table 1. OFM definitions of risk likelihood levels.

Likelihood Level	Specifics
Rare	• An incident may occur in exceptional circumstances. • No incidents have occurred in the past 15 years.
Unlikely	• An incident could occur at some time if circumstances significantly change. • It has been five to 15 years since the last incident.
Possible	• An incident might occur under current circumstances. • There has been one incident in the past five years.
Likely	• An incident will probably occur at some time under current circumstances. • There have been multiple or recurring incidents in the past five years.
Almost certain	• An incident is expected to occur in most situations unless circumstances change. • There have been multiple or recurring incidents in the past year.

The OFM states that a fire department should use professional judgment along with historical information about past incidents in the community to estimate how likely it is for a given emergency to occur.

Consequence Levels

Table 2 shows how the OFM classifies risk consequence levels.

Table 2. OFM definitions of risk consequence levels.

Consequence Level	Specifics
Insignificant	• There is no life safety issue. • Limited value or no property loss. • No impact on the local economy. • No effect on general living conditions.
Minor	• There is a potential risk to the life safety of residents. • Minor property loss. • Minimal disruption to business activity. • Minimal impact on general living conditions.
Moderate	• There is a real threat to the life and safety of residents. • Moderate property loss. • Poses a threat to small local businesses. • Could pose a threat to the quality of the environment.
Major	• There is the potential for a massive loss of life. • Significant property damage. • Significant threat to large businesses, local economy, and tourism. • Environmental impact resulting in a short-term, partial evacuation of residents and businesses.
Catastrophic	• There is the potential for a significant loss of life. • Property damage to a significant portion of the community. • Long-term disruption of businesses, local employment, and tourism. • Environmental damage resulting in the long-term evacuation of residents and businesses.

The OFM defines the consequence of a fire or other emergency as the potential losses or negative outcomes that result from the incident. When estimating consequence levels, fire departments should consider the potential impacts on lives, property, the local economy, and the environment.

Risk Level Matrix

After risk likelihood and consequence levels are identified, they are combined using a risk level matrix in order to calculate overall risk levels.

Table 3 shows the risk level matrix The Loomex Group used to determine the overall level of community risk in South Bruce Peninsula.

Table 3. Risk level matrix used to combine risk likelihood and consequence levels.

	Insignificant Consequence	Minor Consequence	Moderate Consequence	Major Consequence	Catastrophic Consequence
Almost Certain	**Moderate risk**	**Moderate risk**	**High risk**	**High risk**	**High risk**
Likely	**Moderate risk**	**Moderate risk**	**Moderate risk**	**High risk**	**High risk**
Possible	**Low risk**	**Moderate risk**	**Moderate risk**	**Moderate risk**	**High risk**
Unlikely	**Low risk**	**Low risk**	**Moderate risk**	**Moderate risk**	**Moderate risk**
Rare	**Low risk**	**Low risk**	**Low risk**	**Moderate risk**	**Moderate risk**

2.0 Overview of the Local Community, Fire Department, and Bylaws

2.1 Overview of South Bruce Peninsula

South Bruce Peninsula was formed in 1999 after the former townships of Amabel and Albemarle, village of Hepworth, and town of Wiarton amalgamated. This amalgamation occurred as part of a widespread municipal restructuring initiative undertaken across the province to enhance administrative efficiency and service delivery.

The geography of South Bruce Peninsula is distinguished by its varied landscapes, which include rugged terrain, sandy beaches, and bodies of water, such as Georgian Bay. The diversity of the town's landscape defines the physical character of the area and significantly influences the lifestyle, economy, and recreational opportunities available to residents and visitors.

Notable attractions in the area include:

- Bruce Trail, which offers extensive hiking opportunities.
- Sauble Beach, which is celebrated as one of the longest freshwater beaches globally.
- Wiarton Willie, the internationally recognized groundhog who is known for his weather predictions.

The culture in South Bruce Peninsula is characterized by a mix of historical traditions and contemporary influences. There are numerous local products, crafts, and markets, which support the regional economy and help define the area's sense of community.

According to the official website for South Bruce Peninsula, the town "aspires to be a beacon of sustainable development, where economic progress aligns with the protection of its natural treasures. [The town] values innovation and forward-thinking initiatives that respect its heritage while embracing modernity."[1]

2.2 Overview of the South Bruce Peninsula Fire Department

2.2.1 Structure

The South Bruce Peninsula Fire Department is a composite fire department that provides fire suppression, code enforcement, and public education services for the residents, businesses, and visitors of South Bruce Peninsula.

[1] https://www.southbrucepeninsula.com/en/your-community/about-south-bruce-peninsula.aspx

2.2.2 Personnel

The Department consists of the following personnel:

- 1 full-time Fire Chief
- 1 full-time Deputy Fire Chief
- 1 part-time administrative assistant
- 54 volunteer firefighters

2.2.3 Fire Stations

The Department currently operates two fire stations.

Station 30

382 George Street
Wiarton, ON
N0H 2T0

Station 40

21 Sauble Falls Parkway
Sauble Beach, ON
N0H 2G0

2.3 Overview of Bylaws and Agreements in South Bruce Peninsula

2.3.1 Establishing and Regulating Bylaw

An establishing and regulating bylaw ("**E&R bylaw**") specifies which services the local fire department must deliver. E&R bylaws also set the level of service the local firefighters must provide.

As of this CRA, the E&R bylaw for South Bruce Peninsula is Bylaw 103-2016. According to Bylaw 103-2016, the Department must provide the following core services:

- fire prevention
- fire safety education
- fire suppression
- fire rescue
- fire department communications
- motor vehicle collision
- rescue/extrication

- first aid defibrillation
- hazardous materials response (at the awareness level)
- shore-based water rescue
- critical incident stress management

Bylaw 103-2016 also states the following:

> Fire protection services to those properties accessed via private roads, private lanes or private driveways are subject to the following limitations:
>
> 1. Emergency response to properties accessed via private roads, private laneways or private driveways may be limited by the condition of such road, lane or driveway. Response times may vary due to the condition of the private road, private laneway or private driveway.
> 2. Fire protection services will not be performed on islands.
> 3. The property municipally known as 1364 Sunset Drive is hereby exempt from clause 2 above.

2.3.2 Mutual Aid Agreements

Public Fire Safety Guideline 04-05-12: Mutual Aid outlines the requirements for mutual aid agreements. A mutual aid plan allows a participating fire department to request assistance from a neighbouring fire department (as long as the other fire department is authorized to participate in a plan approved by the Fire Marshal).

Section 7 of the FPPA states that the Fire Marshal may appoint fire coordinators to "establish and maintain a mutual aid plan under which the fire departments that serve [a] designated area agree to assist each other in the event of an emergency."

As of this CRA, the Department participates in mutual aid agreements with the Ministry of Forestry and Natural Resources and Grey and Bruce Counties.

2.3.3 Automatic Aid Agreements

Public Fire Safety Guideline 04-04-12: Automatic Aid outlines the requirements for automatic aid agreements. An automatic aid agreement allows the closest fire department to respond to an incident regardless of municipal boundaries. The purpose of the agreements is to reduce the time it takes for firefighters to arrive at the scene of a fire and begin suppression duties.

As of this CRA, the Department has an automatic aid agreement with the Township of Georgian Bluffs regarding the provision of services (including medical responses) in a designated area.

2.3.4 Fire Protection Agreements

Public Fire Safety Guideline 04-09-12: Fire Protection Agreements outlines the requirements for fire protection agreements. A municipality may enter into a fire protection agreement if it does not have an existing fire department or does not have the means to establish one. A municipality may also enter into a fire protection agreement to have multiple departments operating a joint fire department.

As of the CRA, the Department has several fire protection agreements. The following agreements are in place:

- Town of Saugeen Shores - Under this agreement, Saugeen Shores provides fire services to the area known as the “half-mile strip.”

- Municipality of Arran-Elderslie – Under this agreement Arran-Elderslie provides fire, medical, and auto extrication services to the land known as lots 1-14, Concession “A.”

- Saugeen First Nations – Under this agreement South Bruce Peninsula provides fire protection services to the first nations community. This agreement is currently being updated through negotiations.

3.0 Geographic Profile

3.1 Context of a Geographic Profile

As per OFM-TG-02-2019, a geographic profile examines a community's physical features, including the nature and placement of the following:

- highways
- waterways
- railways
- canyons
- bridges
- landforms
- wildland-urban interfaces

A CRA reviews these features because they may impact how quickly emergency responders can arrive at an incident or access an emergency site. When a fire department is aware of potential impacts on its services, it can plan its response procedures accordingly.

3.2 Geography of South Bruce Peninsula

Size

According to the 2021 Statistics Canada census, South Bruce Peninsula is 530.61 square kilometres in area, with a population density of 17.2 persons per square kilometre.

Landscape

South Bruce Peninsula has a mostly flat landscape that is characterized by farmland and some forested areas.

Surrounding Communities

South Bruce Peninsula contains several communities, including Wiarton, Sauble Beach, and a few small hamlets.

Lakes, Rivers, and Other Bodies of Water

South Bruce Peninsula is situated between two large bodies of water: Georgian Bay (to the east) and Lake Huron (to the west). There are also several smaller bodies of water in the area.

Due to the prevalence of lakes, rivers, and other bodies of water in the area, South Bruce Peninsula contains marinas and long stretches of shoreline.

Forested Areas and Trails

South Bruce Peninsula contains numerous trails that are available for recreational use. These trails include snowmobile trails, ATV trails, and walking trails. These trails include a portion of the Bruce Trail, which is a walking trail that is frequented by both locals and tourists and stretches from Tobermory to Niagara-on-the-Lake.

Remote-Access Areas

South Bruce Peninsula contains some remote-access areas. Most of these areas are located along trails and shorelines.

Historically, the Department has needed to provide rescue services on the town's snowmobile trails and walking trails.

Roadways

South Bruce Peninsula contains provincial roads, county roads, and several private municipal roads and lanes.

A summary of the road network in South Bruce Peninsula is as follows:

- There are several highways that service the area, including Highway 6.
- There are several well-used county roads/highways in the area.
- There are numerous municipal roads and streets that South Bruce Peninsula is responsible for maintaining.
- There are several private roads and lanes that are the responsibility of residents and private associations.

The roads in South Bruce Peninsula are heavily used during the summer months. During the winter season, the local roadways are susceptible to damage or closures due to weather events, such as heavy snowfall.

Bridges and Other Access Points

South Bruce Peninsula contains a number of bridges, most of which are used for crossing rivers and creeks.

If there are any bridge closures in the area, residents and visitors of South Bruce Peninsula may experience long delays or need to take detours in order to access certain areas of the town. In addition, bridge closures can cause delayed emergency responses.

3.3 Geographic Profile Summary

Table 4 lists the main geographic features found in South Bruce Peninsula. The table indicates if the features impact the Department's training and equipment, response and travel times, station locations, and response protocol.

Table 4. Geographic features found in South Bruce Peninsula.

Geographic Feature	Training & Equipment Impact	Response & Travel Time Impact	Fire Station Location Impact	Response Protocol Impact
Forested areas	✓	✓	✓	✓
Shorelines and beaches	✓	✓	✓	✓
Lakes and rivers	✓	✓	✓	✓
Parks and trails	✓	✓	✓	✓
Municipal roads	✓	✓	✓	✓
County roads	✓	✓	✓	✓
Provincial highways	✓	✓	✓	✓
Marinas	✓	✓	✓	✓

3.4 Risks Identified by the Geographic Profile

Table 5 summarizes the risks identified by the geographic profile for South Bruce Peninsula.

Table 5. Geographic profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Road/highway emergency	Almost certain	Minor	**Moderate**
Wildland/forest fire	Almost certain	Minor	**Moderate**

For more information about these risks, refer to the following sections of this CRA:

- Section 12: This section contains the risk level matrix used to calculate the overall likelihood levels and risk scores for the indicated risks.
- Section 13: This section contains the RTPs developed for the indicated risks.

4.0 Building Stock Profile

4.1 Context of a Building Stock Profile

As per OFM-TG-02-2019, a building stock profile examines the types, numbers, ages, and uses of the buildings in a community. For reference purposes, the profile categorizes buildings according to the major occupancy classifications defined in the Ontario Building Code ("**OBC**").

Each kind of building has different safety concerns, such as:

- Older buildings often lack the fire and life safety systems included in newer buildings.
- Industrial chemical storage facilities are likely at a higher fire risk than commercial retail occupancies.
- The configuration and age of a residential occupancy can influence the probability and consequence of a fire. For example, single-family dwellings present different risks than townhouses or row houses.

Due to considerations like these, it is important to know which types of buildings are prevalent in the community, as well as where they are located.

It is also important to note that some buildings, such as agricultural buildings, do not have OBC classifications. These buildings may have different associated risks than occupancies that are classified under the OBC.

The information in a building stock profile can help a fire department develop initiatives to address public safety risks such as fires, explosions, and structural failures.

4.2 Building Stock in South Bruce Peninsula

4.2.1 Ontario Fire Marshal Directive 2022-001

On February 25, 2022, the OFM issued Directive 2022-001, which addresses truss and lightweight construction systems ("**LWC**"). According to the OFM, LWC may experience premature failure and rapid collapse under certain fire conditions.

As per Directive 2022-001, a CRA must indicate how many local buildings have LWC. The intent of Directive 2022-001 is to provide firefighters with information that they can use to complete the pre-planning process and deliver suppression services safely and effectively.

For a copy of Directive 2022-001, see Appendix D of this CRA.

Lightweight Construction Occupancies in South Bruce Peninsula

In 2022, the South Bruce Peninsula Building Department began tracking the use of LWC in new buildings in the community. As of the CRA, 445 permits for buildings in South Bruce Peninsula identify the usage of LWC.

Going forward, South Bruce Peninsula should continue to track buildings in the community that use LWC. Having this information will help protect the safety of building occupants and responding firefighters in the event of a fire.

4.2.2 Building Stock Overview

Table 6 lists the building stock in South Bruce Peninsula (according to information provided by the Municipal Property Assessment Corporation).

Table 6. List of building stock in South Bruce Peninsula.

OBC Classification	Type of Occupancy	# of Buildings
Group A	Assembly occupancy	54
Group B	Care and treatment occupancy	6
Group C	Residential occupancy	6,450
Groups D & E	Mercantile/commercial occupancy	117
Group F	Industrial occupancy	25
Other/non-occupancies	N/A	140

4.2.3 Building Stock Summary

Tables 7 to 12 summarize the building stock in South Bruce Peninsula. The tables identify various fire and life safety issues, concerns, and observations based on an assessment of the following factors:

- building use
- building density, height, and square footage
- building location
- the building’s historical or cultural significance
- the building’s economic impact
- the use of LWC

Table 7. Group A occupancies in South Bruce Peninsula.

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Restaurant	9	No data	• Patrons may lack awareness of secondary exits. • Staff may lack awareness of emergency procedures and fire safety plans. • Equipment may require servicing to meet OFC compliance requirements. • Life safety systems must remain compliant with applicable requirements.	Possible	Major	**Moderate**
School	3	No data	• Fire safety plans are submitted to the Fire Chief annually for review. • Staff may lack awareness of emergency procedures and fire safety plans. • Schools must complete six fire drills during the school year, and they must provide confirmation that all required fire drills are completed.	Possible	Major	**Moderate**
Community hall	6	No data	• Patrons may lack awareness of secondary exits. • Staff may lack awareness of emergency procedures and fire safety plans. • Routine inspections are required for code compliance. • Some facilities are licenced to serve alcohol during public functions, and excessive alcohol consumption could result in heightened risks to life safety.	Possible	Major	**Moderate**

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Funeral home	4	No data	• Patrons may lack awareness of secondary exits. • Staff may lack awareness of emergency procedures and fire safety plans. • Large gatherings of people are possible. • Some events may involve the use of open flames (such as candles).	Possible	Major	**Moderate**
Arena or pool	2	No data	• Large occupant loads are possible. • Patrons may lack awareness of secondary exits. • Staff may lack awareness of emergency procedures and fire safety plans. • Routine inspections are required for code compliance.	Possible	Major	**Moderate**
Service club	6	No data	• Renters may lack awareness of emergency procedures. • On-site equipment must remain compliance with OFC regulations. • Large gatherings of people are possible. • Fire safety plans may be incomplete or out of date.	Possible	Major	**Moderate**
Library	2	No data	• Patrons may lack awareness of secondary exits. • Staff may lack awareness of emergency procedures and fire safety plans. • Routine inspections are required for code compliance.	Possible	Major	**Moderate**

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Childcare facility	1	No data	• Staff may lack awareness of emergency procedures and fire safety plans. • Routine inspections are required for code compliance.	Possible	Major	**Moderate**
Church	21	4 occupancies since 2022	• On-site equipment must remain compliance with OFC regulations. • Large gatherings of people are possible. • Staff may lack awareness of emergency procedures and fire safety plans. • Some events may involve the use of open flames (such as candles). • No LWC documentation exists from before 2022.	Possible	Major	**Moderate**

Table 8. Group B occupancies in South Bruce Peninsula.

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
B1: Detention occupancy	2	No data	• Staff may need help evacuating individuals in the detention or lock-up areas. • Verifying that fire safety plans are in place is required. • There may be ammunition on site.	Unlikely	Moderate	**Moderate**
B2: Care and treatment facility	1	No data	• Staff may need help evacuating building occupants. • The Department verifies that fire safety plans are in place as required. • The Department verifies that annual fire drills are completed as required. • Staff must complete the required training. • There may be flammable and combustible materials on site.	Unlikely	Major	**Moderate**
B3: Care facility	3	No data	• Staff may need help evacuating building occupants. • The Department verifies that fire safety plans are in place as required. • The Department verifies that fire drills are completed as required. • Staff must complete the required training. • There may be flammable and combustible materials on site.	Unlikely	Major	**Moderate**

Table 9. Group C occupancies in South Bruce Peninsula.

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Single-detached house	3,159	250 occupancies since 2022	• Homes constructed before 1975 predate the OBC. • Time and resources are needed to verify that smoke/CO alarms are installed and maintained. • Time and resources are needed to verify that residents have home escape plans. • Time and resources are needed to deliver public education to all residents. • No LWC documentation exists from before 2022.	Almost certain	Minor	**Moderate**
Semi-detached house	19	No data	• Time and resources are needed to verify that smoke/CO alarms are installed and maintained. • Time and resources are needed to verify that residents have home escape plans. • Time and resources are needed to deliver public education to all residents. • No LWC documentation.	Almost certain	Minor	**Moderate**

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Row house	39	No data	• Time and resources are needed to verify that smoke/CO alarms are installed and maintained. • Time and resources are needed to verify that residents have home escape plans. • Time and resources are needed to deliver public education to all residents. • No LWC documentation.	Possible	Minor	**Moderate**
Apartment or flat in a duplex	19	1 occupancy since 2022	• Time and resources are needed to verify that smoke/CO alarms are installed and maintained. • Time and resources are needed to verify that residents have home escape plans. • Time and resources are needed to deliver public education to all residents. • No LWC documentation exists from before 2022.	Possible	Minor	**Moderate**

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Apartment in a building with fewer than five storeys	34	No data	• Time and resources are needed to verify that smoke/CO alarms are installed and maintained. • Time and resources are needed to verify that residents have home escape plans. • Time and resources are needed to deliver public education to all residents. • Fire safety plans may be incomplete or out of date. • High-density living configurations are possible. • Detailed inspections are required. • Life safety systems must remain functional. • No LWC documentation.	Possible	Moderate	**Moderate**
Other single-attached house	106	No data	• Homes constructed before 1975 predate the OBC. • Time and resources are needed to verify that smoke/CO alarms are installed and maintained. • Time and resources are needed to verify that residents have home escape plans. • Time and resources are needed to deliver public education to all residents. • No LWC documentation.	Possible	Minor	**Moderate**

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Hotel/motel (including County Inns)	15	2 occupancies since 2022	• High-density living configurations are possible. • Staff need to complete the required training. • Detailed inspections are required. • Fire safety plans may be incomplete or out of date. • No LWC documentation exists from before 2022.	Possible	Moderate	**Moderate**
Group home	3	No data	• Fire safety plans may be incomplete or out of date. • Detailed inspections are required. • Life safety systems must remain functional.	Possible	Minor	**Moderate**
Seasonal dwelling	3,056	9 occupancies since 2022	• Homes constructed before 1975 predate the OBC. • Time and resources are needed to verify that smoke/CO alarms are installed and maintained. • Time and resources are needed to verify that residents have home escape plans. • Time and resources are needed to deliver public education to all residents. • No LWC documentation exists from before 2022.	Likely	Minor	**Moderate**

Table 10. Group D and E occupancies in South Bruce Peninsula.

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Retail lumber yard	1	No data	• Significant on-site fuel loads are possible. • Staff may lack awareness of emergency procedures and fire safety plans. • Patrons may lack awareness of secondary exits. • Routine inspections are required.	Unlikely	Minor	**Low**
Retail business	101	12 occupancies since 2022	• Staff may lack awareness of emergency procedures and fire safety plans. • Patrons may lack awareness of secondary exits. • Routine inspections are required. • Significant on-site fuel loads (such as tires and oils) are possible. • No LWC documentation exists from before 2022.	Unlikely	Minor	**Low**
Retail service station	2	No data	• Flammable fuels may be kept on site. • Staff may lack awareness of emergency procedures regarding fires and fuel spills.	Unlikely	Minor	**Low**
Grocery store	3	No data	• Staff may lack awareness of emergency procedures and fire safety plans. • Patrons may lack awareness of secondary exits. • Routine inspections are required.	Unlikely	Minor	**Low**

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Office building	10	No data	• Patrons may lack awareness of secondary exits. • Routine inspections are required.	Unlikely	Minor	**Low**

Table 11. Group F occupancies in South Bruce Peninsula.

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Warehouse	9	No data	• Significant on-site fuel loads are possible. • Staff may lack awareness of emergency procedures and fire safety plans. • Unknown commodities may be kept on site. • Hazardous materials may be kept on site.	Unlikely	Moderate	**Moderate**
Vehicle repair shop	14	No data	• Significant on-site fuel loads are possible. • Staff may lack awareness of emergency procedures and fire safety plans. • Unknown commodities may be kept on site. • Hazardous materials may be kept on site.	Unlikely	Moderate	**Moderate**
Transfer station	2	No data	• Staff may lack awareness of emergency procedures and fire safety plans. • Unknown commodities may be kept on site. • Hazardous materials may be kept on site.	Unlikely	Moderate	**Moderate**

Table 12. Other occupancies or non-occupancies in South Bruce Peninsula.

Type of Building	Number of Buildings	Number of LWC Buildings	Issues, Concerns, and Observations	Risk Likelihood	Risk Consequence	Risk Level
Non-classified occupancy	140	31 occupancies since 2022	• Inspections are required to determine the use of all non-classified occupancies. • Some occupancies not classified by the OBC are agricultural occupancies. • Agricultural occupancies may have fuel loads on site. • Some non-classified occupancies are vacant residential, commercial, and industrial buildings. • No LWC documentation exists from before 2022.	Almost certain	Minor	**Moderate**

4.3 Building Inspections

4.3.1 Legislation Governing Building Inspections

Inspection Requirements Mandated by O. Reg. 365/13

As per O. Reg. 365/13:

- A fire department must complete a fire safety assessment and inspection each time it receives a complaint about a specific building's OFC compliance.
- A fire department must complete a fire safety assessment and inspection each time it receives a request to verify a specific building's OFC compliance.

Other Inspection Legislation and Requirements

Other regulations that govern building inspections are as follows:

- O. Reg. 364/13: This legislation requires vulnerable occupancies to undergo fire safety assessments and inspections and complete annual fire drills.
- OFC, section 2.8.2: This legislation requires applicable occupancies to have a fire safety plan prepared, approved, and implemented.
- OFC, section 2.13: This legislation mandates the installation of smoke alarms.
- OFC, section 2.16: This legislation mandates the installation of carbon monoxide alarms.

Fire safety legislation also requires each municipality to have a smoke/CO program that includes OFC inspection and enforcement components.

4.4 Building Inspections in South Bruce Peninsula

The Department's inspection statistics for 2019 to 2023 are presented as follows:

- Table 13 summarizes the number of inspections the Department completed from 2019 to 2023.
- Table 14 summarizes the reasons for the inspections the Department conducted from 2019 to 2023.
- Table 15 summarizes the number of violations the Department identified and the number of notices it issued from 2019 to 2023.

Table 13. Inspections by occupancy type, 2019 to 2023.

Type of Occupancy	2019	2020	2021	2022	2023	Total
Group A (assembly)	4	2	1	0	3	10
Group B (care and treatment)	4	4	4	4	4	20
Group C (residential)	21	17	16	3	5	62
Group D & E (mercantile/commercial)	3	2	0	0	1	6
Group F (industrial)	0	0	0	0	0	0
Other/non-occupancy	0	0	0	0	0	0
Other/smoke alarm/ safety concern	5	8	5	6	3	27
Total	**37**	**33**	**26**	**13**	**16**	**125**

Table 14. Inspection reasons, 2019 to 2023.

Reason for Inspection	2019	2020	2021	2022	2023	Total
Complaint inspection	26	22	15	6	5	74
Owner request	1	0	1	0	0	2
Sale request	0	0	0	0	0	0
Routine inspection	4	4	4	4	4	20
Licensing inspection	1	4	2	2	3	12
Other	5	3	4	1	4	17
Total	**37**	**33**	**26**	**13**	**16**	**125**

Table 15. Violations and issued notices, 2019 to 2023.

Reason for Inspection	2019	2020	2021	2022	2023	Total
Verbal	0	0	0	0	0	0
Letter	0	0	0	0	0	0
Order	0	0	0	1	2	3
Other	36	33	26	12	10	117
Total	**36**	**33**	**26**	**13**	**12**	**120**
Resolved	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

In addition to the inspections summarized in the tables above, the Department's records indicate that the Department inspected 27 residences from 2019 to 2023 as part of its smoke/CO alarm program.

The Department also checks the functionality of smoke/CO alarms during emergency responses. However, the results of these inspections are not documented. Going forward, the Department should maintain a detailed record of all smoke/CO alarm inspections it conducts.

4.5 Risks Identified by the Building Stock Profile.

Table 16 summarizes the risks identified by the building stock profile for South Bruce Peninsula.

Table 16. Building stock profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Fire in residential occupancy	Almost certain	Moderate	**High**
Fire in assembly occupancy	Likely	Major	**High**
Fire in vulnerable occupancy	Unlikely	Major	**Moderate**
Fire/explosion in industrial occupancy	Unlikely	Moderate	**Moderate**
Fire in agricultural occupancy	Almost certain	Minor	**Moderate**
Fire in commercial occupancy	Unlikely	Minor	**Low**

For more information about these risks, refer to the following sections of this CRA:

- Section 12: This section contains the risk level matrix used to calculate the overall likelihood levels and risk scores for the indicated risks.

- Section 13: This section contains the RTPs developed for the indicated risks.

4.5.1 Potential Concerns

Some buildings in South Bruce Peninsula have features that the Department must consider in order to keep the risk of fire at a minimum.

For example, South Bruce Peninsula contains numerous occupancies that are three or four storeys high. As of this CRA, the Department does not have a ladder that is long enough to allow its firefighters to perform rescue operations on the top floors of these buildings.

Another potential concern is the fire load that is present at local lumber stores.

5.0 Critical Infrastructure Profile

5.1 Context of a Critical Infrastructure Profile

As per OFM-TG-02-2019, a critical infrastructure ("**CI**") profile examines the capabilities and limitations of a community's CI.

CI includes the interconnected networks, services, and systems that meet vital human needs, sustain the economy, and protect public safety. Typical forms of CI include the following:

- electricity distribution
- water distribution
- telecommunications
- hospitals

A CRA includes a CI profile because the presence, availability, and capacity of CI can significantly impact factors such as:

- dispatch
- communications
- transportation
- fire suppression services
- community healthcare

If any of its CI services or systems become compromised, a community may be put at a high level of risk. The size or design of a specific type of CI may also pose a risk to the community.

A fire department can use the information in a CI profile to set response priorities and develop strategies to ensure it can meet the community's public safety education, fire prevention, and emergency response pre-planning needs.

5.2 Critical Infrastructure Profile Summary

Table 17 summarizes the CI found in South Bruce Peninsula (based on information provided by the town's records). The table indicates applicable fire and life safety issues, concerns, and observations for each type of CI.

Table 17. Critical infrastructure in South Bruce Peninsula.

Critical Infrastructure	Issues, Concerns, and Observations
Municipal government	• There are municipal offices in Wiarton. • South Bruce Peninsula provides vital municipal operations and resources. • South Bruce Peninsula maintains critical data and archival information. • The municipal office serves as the emergency operations centre for South Bruce Peninsula.

Fire protection services	• There are two fire stations in the Town of South Bruce Peninsula:
	  ○ Station 30 is located at 382 George Street (in Wiarton).
	  ○ Station 40 is located at 21 Sauble Falls Parkway (in Sauble Beach).

Electricity distribution	• Hydro One provides electrical utility services in South Bruce Peninsula. • The local electrical infrastructure includes transmission towers, power lines, and transformer stations. • Electricity transmission can be unreliable when poles and towers are damaged.
Wastewater systems	• South Bruce Peninsula runs a wastewater system in Wiarton.
Water distribution	• There are water systems in Wiarton and Sauble Beach. • There are community wells that service Oliphant, Chesley Lake, and South Sauble Beach. • Water is drawn from lakes and wells. • If a property has a private well, the property owner is responsible for installing and maintaining that well. • The Department needs to have access to a reliable water supply in order to deliver fire suppression services.

Critical Infrastructure	Issues, Concerns, and Observations
Radio communication systems and 911 communication systems	• Owen Sound Police service provides dispatch services for the Department. • 911 communication systems rely heavily on radio towers and phone/internet lines. • Communication systems can be severely affected by damage to poles and towers.
Telecommunications	• There are several mobile communications towers in the area. Various emergency services are using some of those towers. The Department also has a couple of communication towers. • Telecommunications systems can be severely affected by damage to poles and towers.
Provincial, county, and municipal roads and bridges	• There are concrete culverts along Highway 6 and the local county roads. • Damage to roads and bridges can cause serious delays during emergency responses.
Police station	• There is an OPP detachment located in South Bruce Peninsula (south of Wiarton) and at a community office at the fire station in Sauble Beach.
Hospital	• There is a hospital in Wiarton that has 33 beds. • If an emergency occurs, staff need help with evacuation efforts.
EMS station	• Bruce County Paramedic Services provides emergency and non-urgent medical care to South Bruce Peninsula's residents and visitors. • There is one paramedic station in Wiarton that is staffed on a full-time basis. • There is one paramedic station in Sauble that is staffed from 10 a.m. to 10 p.m. daily. • Delayed response times are possible.
Central Ambulance Communication Centre	• Bruce County Paramedics communications are managed by the Ontario government at the Ambulance Communication Centre in London.

5.3 Risks Identified by the Critical Infrastructure Profile

Table 18 summarizes the risks identified by the critical infrastructure profile for South Bruce Peninsula.

Table 18. Critical infrastructure profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Severe weather incident	Almost certain	Moderate	**High**
Road/highway incident	Almost certain	Minor	**Moderate**
Critical infrastructure failure	Almost certain	Minor	**Moderate**

For more information about these risks, refer to the following sections of this CRA:

- Section 12: This section contains the risk level matrix used to calculate the overall likelihood levels and risk scores for the indicated risks.
- Section 13: This section contains the RTPs developed for the indicated risks.

5.3.1 Potential Concerns

In addition to CI failures, a lack of CI maintenance is a potential concern for the South Bruce Peninsula community.

The Department relies on several types of CI when making emergency responses. For example, the Department requires the roads, highways, culverts, and bridges in South Bruce Peninsula to be accessible and in good repair when it responds to emergencies. If the community's CI is not kept in working order, it may impact the safety, effectiveness, or timeliness of an emergency response.

Due to the role CI plays in the Department's operations, it is imperative for South Bruce Peninsula to keep its CI in place and functioning. Going forward, it is in the community's best interest for South Bruce Peninsula to remain vigilant in regard to its CI. This responsibility includes performing routine maintenance, monitoring for incidents that could cause CI damage, and repairing any damaged CI as soon as possible.

6.0 Demographic Profile

6.1 Context of a Demographic Profile

As per OFM-TG-02-2019, a demographic profile examines a community's population based on the following factors:

- size and dispersion
- age
- gender
- cultural background
- level of education
- socioeconomic makeup
- transient population

When a fire department knows its community's demographics, it can identify specific groups that may be at high risk of suffering or causing a fire or other emergency. The fire department can then develop programs and outreach initiatives to communicate with those groups and reduce fire risk in the community.

As it develops public safety initiatives, a fire department should ensure that it respects the demographics in its community. Doing so will allow the fire department to provide all residents with programs and services that are meaningful to them.

6.2 Residents

6.2.1 Year-Round Residents

According to the 2021 Statistics Canada census, South Bruce Peninsula has a population of 9,137 year-round residents. This number is 8.6 per cent higher than the number of residents recorded in the 2016 census.

6.2.2 Transient and Seasonal Residents

Historically, South Bruce Peninsula sees an influx of about 6,000 seasonal residents during the summer months. In addition, the number of day trippers that visit the area can reach up to 1,000,000 people annually.

As noted in section 4.2.3 of this CRA, South Bruce Peninsula contains 3,056 seasonal dwellings, trailer parks, campsites, and hotel/motel units. Many of these seasonal dwellings are being converted into permanent residences.

6.3 Age Distribution

Table 19 compares the age distribution in South Bruce Peninsula to the Province of Ontario (based on the findings of the 2021 Statistics Canada census).

Table 19. Age distribution in South Bruce Peninsula and the Province of Ontario.

Age Range	South Bruce Peninsula	Ontario
0 to 14 years	11.8%	15.8%
15 to 64 years	55.1%	65.6%
65 years and over	33.1%	18.5%
85 years and over	3.4%	2.4%

According to the 2021 census:

- The average age in South Bruce Peninsula is 50.3 (compared to the provincial average of 41.8).
- The median age in South Bruce Peninsula is 56.8 (compared to the provincial median of 41.6).
    - The median age in South Bruce Peninsula has increased by 9.5 per cent in the last 20 years.

6.4 Language and Cultural Considerations

It is essential for fire departments to incorporate language and cultural considerations into their community programs and services.

From a communications perspective, fire departments should note that not all residents speak English as their first language. This means fire prevention and public education materials must account for possible language barriers.

From a cultural perspective, many groups have differing fire safety practices, which means fire departments must ensure they develop programs that promote safety while respecting cultural beliefs.

Language Considerations in South Bruce Peninsula

According to the 2021 Statistics Canada census, South Bruce Peninsula is a predominantly English-speaking community, with 95.2 per cent of its population identifying English as their first language. Overall, 100 per cent of the town’s residents speak English, but only 4.4 per cent are bilingual in English and French.

Cultural Considerations in South Bruce Peninsula

According to the 2021 Statistics Canada census, 2 per cent of South Bruce Peninsula's residents identify as a visible minority.

Indigenous Identity in South Bruce Peninsula

According to the 2021 Statistics Canada census, 3.4 per cent of South Bruce Peninsula's residents identify as Indigenous. Those residents identify as First Nations, Métis, or as part of another Indigenous group not listed.

6.5 Level of Education

Table 20 compares the highest level of education among South Bruce Peninsula's residents to the provincial average (based on the findings of the 2021 Statistics Canada census).

Table 20. Education levels in South Bruce Peninsula compared to Ontario.

Education Level	South Bruce Peninsula	Ontario
No certificate	16.6%	15.3%
High school	33.4%	27.2%
Some post-secondary	50.1%	57.5%

6.6 Socioeconomic Makeup

Table 21 lists applicable socioeconomic statistics about the residents of South Bruce Peninsula (based on the findings of the 2021 Statistics Canada census).

Table 21. Socioeconomic statistics for South Bruce Peninsula.

Statistic	South Bruce Peninsula	Ontario
Number of total income recipients aged 15 years and over in private households.	7,685	11,294,815
Average total income among recipients	$48,160	$56,350
Average after-tax income among recipients	$41,200	$46,280
Average family size of economic families	2.7 people	3.1 people
Average total income of economic family	$106,600	$137,200

Statistic	South Bruce Peninsula	Ontario
Average after-tax income of economic family	$91,200	$112,200
Prevalence of low income based on the low-income measure, after tax	11.7%	10.1%

6.7 Vulnerable Occupancies, Schools, and Childcare Centres

The Department must keep itself aware of all vulnerable occupancies, schools, and childcare centres in South Bruce Peninsula, as these sites may be at a heightened risk of fire or other emergencies.

Vulnerable Occupancies in South Bruce Peninsula

Table 22 lists the vulnerable occupancies South Bruce Peninsula. The table indicates applicable demographic considerations for each site.

Table 22. List of vulnerable occupancies in South Bruce Peninsula.

Vulnerable Occupancy	Type of Facility	Beds	Staff
Community Living	Retirement and care	5	2
Gateway	Retirement and care	100	144
Wiarton Senior Living	Retirement and care	14	7
Wiarton Hospital	Care and treatment	33	107

Schools in South Bruce Peninsula

Table 23 lists the schools South Bruce Peninsula. The table indicates applicable demographic considerations for each site.

Table 23. List of schools in South Bruce Peninsula.

School	Type of School	Students	Staff
Amabel-Sauble Community School	Elementary and secondary	189	25
Ecole Hepworth Central Public School	Elementary	365	32
Peninsula Shores District School	Elementary and secondary	409	70

Childcare Centres in South Bruce Peninsula

South Bruce Peninsula contains six childcare centres. All childcare centres in South Bruce Peninsula are located in buildings that also house other occupancies. Detailed statistics about the childcare centres are not currently available.

6.8 Demographic Profile Summary

Table 24 summarizes the demographic considerations discussed above and indicates applicable fire and life safety issues, concerns, and observations.

Table 24. Demographic profile summary for South Bruce Peninsula.

Demographic Consideration	Issues, Concerns, and Observations
Transient and seasonal population	• South Bruce Peninsula has an annual influx of about 6,000 seasonal residents during the summer. • An influx of seasonal residents can increase the traffic volume on local roads and highways. • An influx of seasonal residents can lead to a heightened number of emergency calls. • It takes time and resources to ensure that all seasonal residents receive fire safety education.
Age	• In total, 33.1 per cent of South Bruce Peninsula's population is over the age of 65. • It takes time and resources to verify that seniors have working smoke alarms in their residences. • Some seniors may not have the ability to ensure their homes have appropriate fire safety measures in place. In addition, some seniors may be unable to exit a building independently. • It can be difficult to provide fire safety information to seniors due to their existing knowledge, practices, and beliefs. • Some older residents do not use newer methods of communication (such as social media). If the Department only uses newer communication methods to deliver public education, some residents may not receive important messages.

Demographic Consideration	Issues, Concerns, and Observations
Level of education	• In total, 16 per cent of South Bruce Peninsula's population does not have a high school diploma or equivalent. • The Department must strive to provide all residents with fire prevention materials and public fire safety education that are clear, applicable, and meaningful to their demographic.
Socioeconomic makeup	• The average household income in South Bruce Peninsula is about $8,000 lower than the provincial average.
Vulnerable occupancies, schools, and child care centres	• It takes time and resources to verify that vulnerable occupancies, schools, and childcare centres conduct the required number of fire drills. • It takes time and resources to verify that vulnerable occupancies, schools, and childcare centres have staff members who can carry out the duties listed in their fire safety plans. • It takes time and resources to deliver public education about fire and life safety. • Inspections must be conducted to identify hazards, witness fire drills, and determine the level of risk posed by on-site hazards.

6.9 Risks Identified by the Demographic Profile

Table 25 summarizes the risks identified by the demographic profile for South Bruce Peninsula.

Table 25. Demographic profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Fire in residential occupancy	Almost certain	Moderate	**High**
Fire in assembly occupancy	Likely	Major	**Moderate**
Fire in vulnerable occupancy	Unlikely	Major	**Moderate**
Road/highway emergency	Almost certain	Minor	**Moderate**

For more information about these risks, refer to the following sections of this CRA:

- Section 12: This section contains the risk level matrix used to calculate the overall likelihood levels and risk scores for the indicated risks.
- Section 13: This section contains the RTPs developed for the indicated risks.

6.9.1 Potential Concerns

Trends indicate that the population in South Bruce Peninsula is experiencing year-over-year growth. As the number of residents in the community continues to grow (and as the average age of residents increases), there may be a need for the Department to review its staffing levels and services—as well as the locations of its fire stations—in order to identify opportunities to enhance community safety.

7.0 Hazard Profile

7.1 Context of a Hazard Profile

As per OFM-TG-02-2019, a hazard profile examines the natural, technological, and human-made threats a community might face, such as:

- severe weather (such as freezing rain, ice storms, tornadoes, or hurricanes)
- forest fires
- floods
- transportation emergencies
- cyber-attacks
- human health emergencies
- energy supply disruptions
- hazardous materials spills

It is vital for the local fire department to review all potential risks identified in the hazard profile section of its CRA. The fire department must also understand which of those risks it is expected to respond to if an emergency occurs.

7.2 Potential Hazards in South Bruce Peninsula

Road/Highway Emergency

A road/highway emergency can impact South Bruce Peninsula in the following ways:

- Fires may occur.
- Explosions may occur.
- Injuries may occur.
- Deaths may occur.
- The Department may need to rescue trapped or injured people.

Severe Weather Event

A severe weather event can impact South Bruce Peninsula in the following ways:

- Power interruptions may occur.
- Severe weather may disrupt communication services.
- Residents may be unprepared for severe weather. As a result, some residents may not have the necessary supplies on hand during a severe weather event.

- Tourists may be unprepared for severe weather.
- Some tourists may be unfamiliar with the area, which puts them at risk of becoming stranded, lost, or endangered during a severe weather event.
- Some severe weather conditions can cause periods of low visibility.
- Some severe weather conditions may cause delays in emergency responses.

Wildland Fire

A wildland fire can impact South Bruce Peninsula in the following ways:

- A fire may spread to inhabited areas.
- If a fire cannot be contained, evacuations may be required.
- Environmental damage may occur.
- Road and highway closures may be required.

Fire at Propane Facility

There is a large propane facility located just outside of Wiarton (in the Township of Georgian Bluffs). A fire at the propane facility in Georgian Bluffs may impact South Bruce Peninsula in the following ways:

- A fire may spread to inhabited areas.
- If a fire cannot be contained, evacuations may be required.
- Environmental damage may occur.
- Road and highway closures may be required.

In addition, there are several smaller propane filling facilities that may experience small-scale fires. If so, evacuations may be required.

Localized Flooding

Localized flooding can impact South Bruce Peninsula in the following ways:

- Emergency responders may need to rescue endangered people.
- Flooding may prevent emergency responders from accessing certain areas of the community.

7.3 Risks Identified by the Hazard Profile

Table 26 summarizes the risks identified by the hazard profile for South Bruce Peninsula.

Table 26. Hazard profile risk summary.

Hazard	Likelihood	Consequence	Risk Level
Severe weather event	Almost certain	Major	**High**
Road/highway incident	Almost certain	Minor	**Moderate**
Localized flooding	Likely	Minor	**Moderate**
Wildland/forest fire	Almost certain	Minor	**Moderate**
Fire in propane storage facility	Unlikely	Major	**Moderate**

For more information about these risks, refer to the following sections of this CRA:

- Section 12: This section contains the risk level matrix used to calculate the overall likelihood levels and risk scores for the indicated risks.
- Section 13: This section contains the RTPs developed for the indicated risks.

7.3.1 Potential Concerns

In addition to the hazards listed above, South Bruce Peninsula and the Department should take steps to remain aware of evolving threats. For instance, if Wiarton Keppel Airport begins offering more services, it may introduce new safety concerns in South Bruce Peninsula.

8.0 Public Safety Response Entities Profile

8.1 Context of a Public Safety Response Entities Profile

As per OFM-TG-02-2019, a public safety response entities profile examines the organizations that respond to emergencies in the community. Aside from fire departments, the most common public safety response agencies are police and paramedic services.

A public safety response entities profile considers the following questions:

- What incidents do the non-fire department organizations respond to?
- What are the response capabilities of the non-fire department organizations?
- Does the fire department have any potential interdependencies?

This profile gives a fire department information it can use to determine the types of services it should provide. For instance, a community may have an industrial facility with its own internal fire services crew. If so, that crew may have the capacity to assist or relieve the local fire department of specific response duties at the facility. Conversely, the internal fire services crew may have service limitations the local fire department should know about.

A public safety response entities profile can also provide insight into the benefits of establishing a tiered/joint response to various emergencies. Such insights can help a fire department identify risk treatment options based on shared responsibilities.

By understanding the capacity of public response agencies in the community, a fire department can set its level of service accordingly.

8.2 Public Safety Response Entities in South Bruce Peninsula

Table 27 lists the public safety response agencies in South Bruce Peninsula. The table indicates the jurisdiction and responsibilities of each agency, as well as the potential issues that might affect their operations during an emergency response.

Table 27. Public safety response agencies in South Bruce Peninsula.

Response Agency	Types of Incidents	Role at Incident	Issues or Concerns
Bruce County Paramedic Services	• Fires • Explosions • Medical emergencies • Structural failures • Road and highway incidents • Hazardous materials incidents	• Care for patients. • Transport patients as needed. • Monitor firefighter health at fire scenes.	• Delayed response times are possible.
Ontario Provincial Police	• Fires • Explosions • Sudden deaths • Structural failures • Road and highway incidents • Hazardous materials incidents	• Ensure the incident scene is secure. • Assist with investigations. • Investigate collisions, deaths, and criminal activity. • Control traffic.	• Delayed response times are possible.
Hydro One	• Fires • Downed power lines • Electrical fires in transmission equipment	• Ensure the affected area is safe/secure. • Isolate electrical services. • Repair electrical infrastructure. • Restore electrical services.	• Delayed response times are possible. • Lengthy outages are possible.
Office of the Fire Marshal	• Fires • Explosions • Large-scale emergencies	• Investigate explosions and fires that meet the FPPA’s criteria. • Assist police with investigations. • Provide advice during large-scale emergencies (if needed). • Provide limited equipment for large-scale emergencies.	• Delayed response times are possible.

Response Agency	Types of Incidents	Role at Incident	Issues or Concerns
Ministry of Natural Resources and Forestry	• Wildland fires	• Provide firefighting services and equipment to assist with wildland fire suppression.	• Delayed response times are possible. • Staff may not be available when an incident occurs.
Ministry of the Environment	• Hazardous spills • Hazardous materials incidents	• Order the cleanup of spill sites. • Assist with controlling spills and the release of substances.	• There are no issues or concerns.
Ministry of Transportation	• Motor vehicle accidents • Road closures	• Provide traffic control. • Provide highway maintenance.	• There are no issues or concerns.
Telecommunications companies	• Service disruptions	• Repair damaged lines and systems.	• There are no issues or concerns.
Technical Standards and Safety Authority	• Fires • Carbon monoxide emergencies • Elevator emergencies	• Assist with investigations. • Provide limited training.	• Delayed response times are possible. • Inconsistent training levels are possible. • Training can be costly to facilitate.
Canadian Coast Guard	• Boat incidents • Water rescues	• Care for patients. • Contain spills.	• Delayed response times are possible. • In South Bruce Peninsula, the Coast Guard only responds to incidents on Lake Huron.
Health Unit	• Domestic water incidents • Health investigations	• Issue boiling water advisories. • Assist with health issues. • Conduct exposure investigations. • Provide advice regarding responses to health emergencies.	• There are no issues or concerns.

Response Agency	Types of Incidents	Role at Incident	Issues or Concerns
County Roads Department	• Motor vehicle accidents • Road closures	• Provide traffic control. • Provide highway maintenance.	• There are no issues or concerns.
South Bruce Peninsula Roads Department	• Motor vehicle accidents • Road closures	• Provide traffic control. • Provide highway maintenance.	• There are no issues or concerns.
Spills Action Centre	• Fuel spills	• Handle the reporting of incidents, such as fuel spills.	• Delayed response times are possible. • Training levels may be limited.
Provincial Emergency Operation Centre	• Hazardous materials incidents • Large-scale emergencies	• Monitor evolving situations. • Coordinate provincial responses to major emergencies as needed. • Activate provincial hazardous materials response teams. • Coordinate response support for the lead ministry. • Request federal or large-scale assistance as needed.	• There are no issues or concerns.
Grey Sauble Conservation Authority	• Flooding	• Monitor flooding. • Provide weather information, including rainfall amounts. • Provide flooding information to South Bruce Peninsula.	• There are no issues or concerns.

8.3 Risks Identified by the Public Safety Response Entities Profile

The public safety response entities profile for South Bruce Peninsula does not identify any current threats to the town. However, South Bruce Peninsula and the Department should review the information in this profile carefully, as it is important for them to know the capabilities and limitations of the available public response agencies. It is also in the town's best interest to maintain good working relationships with those organizations. Doing so can help improve communication and response efforts during emergencies.

8.3.1 Potential Concerns

South Bruce Peninsula must recognize that the Department is not equipped to deal with all potential incidents that can occur in the community. Some responses may require equipment the Department lacks. Other incidents may require emergency responders to have specialized training that the Department's personnel have not received. If such an incident occurs, the Department's only responsibilities may be to contact the appropriate response agency and maintain scene security until a representative of that organization arrives.

9.0 Community Services Profile

9.1 Context of a Community Services Profile

As per OFM-TG-02-2019, a community services profile examines the organizations that can help the local fire department to:

- Distribute public safety education.
- Conduct OFC inspections or enforcement.
- Conduct emergency responses.

Community service groups can also help:

- Provide financial assistance.
- Provide venues for training or exercises.
- Provide access to high-risk groups.
- Provide temporary shelter.

It is important to take note of all local community organizations and the assistance they can provide. The presence or absence of community services may dictate the types of emergencies the local fire department responds to, as well as the types of services the fire department must provide.

9.2 Community Services in South Bruce Peninsula

Table 28 summarizes the community services in South Bruce Peninsula that may have the abilities and resources to assist the Department when it responds to an emergency. The table also notes issues, concerns, and observations for each community service (as applicable).

Table 28. Community services in South Bruce Peninsula.

Community Service	Assistance Provided	Issues, Concerns, and Observations
Health unit	The health unit provides vulnerable persons with access to public education. The health unit also provides advice and services for firefighters who were exposed to contaminants during a response.	• There are no issues or concerns.
Municipal halls and community centres	Municipal halls and community centres are large assembly occupancies that can serve as evacuation spaces and warming/cooling centres.	• Annual inspections are required to ensure the life safety systems in the buildings are fully operational. • Approved fire safety plans must remain in place. • Occupant loads must remain posted in conspicuous locations.
Schools	Schools are large assembly occupancies that can serve as evacuation spaces and warming/cooling centres. Schools are also locations where fire departments can deliver fire and life safety education programs.	• Human health emergencies may affect the availability of school facilities. • Schools may not have emergency power or backup power generators. • Annual inspections are required to ensure the life safety systems in the buildings are fully operational. • Approved fire safety plans must remain in place. • Occupant loads must remain posted in conspicuous locations.

Community Service	Assistance Provided	Issues, Concerns, and Observations
Faith-based groups	Churches may offer services to support individuals who suffer a loss due to a fire or other emergency.	• Human health emergencies may affect the availability of community services and groups.
Red Cross	The Red Cross can provide various services to support the community during a large-scale emergency. For example, the Red Cross could help organize a temporary shelter for someone who has suffered a fire in their residence.	• Delayed deployment times are possible. • There are costs involved with contacting the Red Cross for assistance (depending on the nature of a given emergency).
Salvation Army	The Salvation Army can provide shelter and clothing and help people obtain other necessities.	• There are no issues or concerns.
Victim services	Victim services are activated through the police or fire department to provide immediate on-site crisis and trauma services. Victim services can also help with urgent practical matters and help arrange other support and resources.	• There are no issues or concerns.

9.3 Risks Identified by the Community Services Profile

The community services profile for South Bruce Peninsula does not identify any current threats to the town. However, South Bruce Peninsula and the Department must remain aware of the local community services. Knowing the availability and limitations of the identified community services will help South Bruce Peninsula integrate support from those organizations into its emergency responses as needed.

10.0 Economic Profile

10.1 Context of an Economic Profile

As per OFM-TG-02-2019, an economic profile examines the economic sectors that affect a community and support its financial sustainability. The profile views economic information from an overall public safety perspective while considering the following questions:

- What sectors influence the community's local economy?
- What potential impacts would the community suffer if it loses the sectors influencing its economy?
- Are there industrial or commercial occupancies in the community that provide significant economic production or jobs? If so, what are the potential risks that could impact those occupancies?

The information in an economic profile can help a fire department determine which fire protection services are required to support the economic sectors in its community.

A fire department can also use the information in an economic profile to identify actions it can take to reduce the risk of incidents at local industrial or commercial occupancies, which can help reduce the risk of emergencies that require large-scale responses.

10.2 Employment Statistics in South Bruce Peninsula

10.2.1 Number of Workers Per Industry

Table 29 shows the number of workers per industry in South Bruce Peninsula (according to Statistics Canada's National Occupational Classification from 2021).

Table 29. Number of workers per industry in South Bruce Peninsula.

Industry	Labour Force
Retail trade	600
Healthcare and social assistance	575
Construction	490
Manufacturing	235
Accommodation and food services	225
Other services (except public administration)	220
Administrative, waste management, and remediation services	205

Industry	Labour Force
Professional, scientific, and technical services	200
Educational services	190
Agriculture, forestry, fishing, and hunting	170
Transportation and warehousing services	150
Public administration	145
Utilities	145
Wholesale trade	80
Mining, quarrying, and oil and gas extraction	75

Based on the data above, the most significant economic industries in South Bruce Peninsula are the “retail trade” and the “healthcare and social assistance” sectors.

10.2.2 Commuting Times and Destination

According to the 2021 Statistics Canada census, 55.1 per cent of commuters in South Bruce Peninsula travel to a job outside the town. Most commuters state that they drive to work.

Table 30 shows the different commuting times in South Bruce Peninsula.

Table 30. Work commute statistics for South Bruce Peninsula.

Commute Time	Number of Commuters
Less than 15 minutes	910
15 to 29 minutes	925
30 to 44 minutes	660
45 to 59 minutes	275
60 minutes and over	245

Based on the data above, 60.7 per cent of commuters in South Bruce Peninsula spend less than 30 minutes travelling to work.

10.2.3 Unemployment Rate

According to the 2021 Statistics Canada census, the unemployment rate in South Bruce Peninsula is 9.3 per cent (compared to the provincial average of 12.2 per cent).

10.3 Significant Industries in South Bruce Peninsula

10.3.1 Tourist Industry

The tourism industry is one of the most significant contributors to the local economy in South Bruce Peninsula. As noted in section 6.2.2 of this CRA, the town gains an average 6,000 residents/tourists during the summer months. In addition, the number of day trippers that visit the area can reach up to 1,000,000 people. It is likely that many of these visitors will frequent the local shops, markets, and restaurants.

Most of South Bruce Peninsula's seasonal residents stay in one of the town's dedicated seasonal occupancies. As noted in section 4.2.3 and section 6.2.2 of this CRA, the town contains 3,056 seasonal occupancies, including campsites and hotel rooms. The town also contains short-term rental properties that are licenced by South Bruce Peninsula, but the number of those occupancies fluctuates from year to year.

10.3.2 Agricultural Industry

Due to the rural nature of South Bruce Peninsula, the agricultural industry is one of the biggest contributors to the town's local economy. There are currently 170 residents in South Bruce Peninsula who have jobs related to agriculture, fishing, or hunting. Most agricultural operations in South Bruce Peninsula employ an average of one person.

According to the 2021 Statistics Canada Census of Agriculture, there are 125 farms in South Bruce Peninsula. Table 31 lists the different types of farms currently operating in the town.

Table 31. Agricultural operations in South Bruce Peninsula.

Type of Operation	Number of Farms
Cattle ranching and farming	57
Other crop farming	22
Oilseed and grain farming	20
Other animal production	13
Vegetable and melon farming	5
Greenhouse, nursery, and floriculture production	4
Poultry and egg production	2
Sheep and goat farming	2
Total	**125**

10.3.3 Other Industries

As discussed above, the tourism and agricultural sectors are major contributors to the local economy of South Bruce Peninsula. However, the community does not have a single large industry that makes overwhelming contributions to the town in terms of employment or revenue.

10.4 Risks Identified by the Economic Profile

The economic profile for South Bruce Peninsula identifies several factors that could lead to economic challenges for the community. For example, if a fire were to occur at the local hospital, many employees would be affected.

South Bruce Peninsula would also suffer economic hardship if an incident were to affect the retail businesses in one of its communities' downtown cores, such as the hardware stores and grocery stores.

Table 32 summarizes the risks identified by the economic profile for South Bruce Peninsula.

Table 32. Economic profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Fire in residential occupancy	Almost certain	Moderate	**High**
Fire in vulnerable occupancy	Unlikely	Major	**Moderate**
Road/highway emergency	Almost certain	Minor	**Moderate**
Fire in downtown core	Unlikely	Moderate	**Moderate**
Fire in agricultural occupancy	Almost certain	Minor	**Moderate**
Fire in commercial occupancy	Unlikely	Minor	**Low**

For more information about these risks, refer to the following sections of this CRA:

- Section 12: This section contains the risk level matrix used to calculate the overall likelihood levels and risk scores for the indicated risks.
- Section 13: This section contains the RTPs developed for the indicated risks.

11.0 Past Loss and Event History Profile

11.1 Context of a Past Loss and Event History Profile

As per OFM-TG-02-2019, a past loss and event history profile examines statistics regarding previous emergencies in a community.

Completing a past loss and event history profile involves the following tasks:

- Analyze the number and types of responses, injuries, deaths, and dollar losses.
- Assess previous response data.
- Compare the community's fire loss statistics with provincial fire loss statistics.

The data in a past loss and event history profile provides valuable insights regarding the trends, circumstances, behaviours, locations, and occupancies involved with previous fires. This information can guide a fire department as it develops public education initiatives and code inspection and enforcement programs to address the high-risk demographics and occupancies in its community.

A fire department should also review response data about its non-fire calls (such as responses to motor vehicle collisions and medical calls) to determine the level of risk and frequency of those emergencies. By reviewing response data about both fire calls and non-fire calls, a fire department gains an overall understanding of the type and level of fire protection services its community requires.

11.2 Loss History in South Bruce Peninsula, 2018 to 2022

The past loss and event history profile for South Bruce Peninsula assesses the town's fire loss statistics from the past five years.

Tables 33 to 37 show the following statistics for the years 2018 to 2022:

- the number of dollar loss fires in South Bruce Peninsula per building group
- the percentage of total fires in South Bruce Peninsula per building group
- the percentage of total fires in Ontario per building group
- the amount of dollar loss in South Bruce Peninsula per building group
- the number of injuries and deaths caused by fires in South Bruce Peninsula per building group
- the known causes of dollar loss fires in South Bruce Peninsula per building group

Table 33. Fire loss statistics for South Bruce Peninsula, 2018.

Occupancy	Fires	S.B.P. %	ON %	$ Loss	Injuries	Deaths	Causes
Group A (Assembly)	0	0%	2%	$0	0	0	• N/A
Group B (Detention, Care, and Treatment)	0	0%	1%	$0	0	0	• N/A
Group C (Residential)	8	67%	47%	$861,200	4	0	• Electrical • Cooking • Open flame/smoking material • Heating equipment • Undetermined
Groups D & E (Commercial and Mercantile)	0	0%	4%	$0	0	0	• N/A
Group F (Industrial)	0	0%	5%	$0	0	0	• N/A
Other Structure	2	17%	5%	$25,000	0	0	• Undetermined
Other (Outdoor, Vehicles)	2	17%	37%	$6,000	0	0	• Undetermined • Electrical
Totals	**12**			**$892,200**	**4**	**0**	

Table 34. Fire loss statistics for South Bruce Peninsula, 2019.

Occupancy	Fires	S.B.P. %	ON %	$ Loss	Injuries	Deaths	Causes
Group A (Assembly)	1	8%	2%	$250,000	0	0	• Undetermined
Group B (Detention, Care, and Treatment)	0	0%	1%	$0	0	0	• N/A
Group C (Residential)	6	46%	46%	$511,700	2	0	• Electrical • Cooking • Open flame/smoking material • Heating equipment • Undetermined
Groups D & E (Commercial and Mercantile)	0	0%	4%	$0	0	0	• N/A
Group F (Industrial)	0	0%	5%	$0	0	0	• N/A
Other Structure	2	15%	5%	$1,000	0	0	• Undetermined
Other (Outdoor, Vehicles)	4	31%	37%	$211,000	0	0	• Undetermined • Electrical
Totals	**13**			**$973,700**	**2**	**0**	

Table 35. Fire loss statistics for South Bruce Peninsula, 2020.

Occupancy	Fires	S.B.P. %	ON %	$ Loss	Injuries	Deaths	Causes
Group A (Assembly)	0	0%	2%	$0	0	0	• N/A
Group B (Detention, Care, and Treatment)	0	0%	1%	$0	0	0	• N/A
Group C (Residential)	13	65%	49%	$1,979,000	2	0	• Electrical • Cooking • Open flame/smoking material • Heating equipment
Groups D & E (Commercial and Mercantile)	0	0%	4%	$0	0	0	• N/A
Group F (Industrial)	0	0%	5%	$0	0	0	• N/A
Other Structure	2	10%	5%	$15,000	2	1	• Exposure • Open flame/smoking material
Other (Outdoor, Vehicles)	5	25%	36%	$110,500	0	0	• Undetermined
Totals	**20**			**$2,104,500**	**4**	**1**	

Table 36. Fire loss statistics for South Bruce Peninsula, 2021.

Occupancy	Fires	S.B.P. %	ON %	$ Loss	Injuries	Deaths	Causes
Group A (Assembly)	0	0%	2%	$0	0	0	• N/A
Group B (Detention, Care, and Treatment)	0	0%	1%	$0	0	0	• N/A
Group C (Residential)	7	44%	49%	$1,253,250	1	0	• Heating equipment • Open flame/smoking material • Cooking • Electrical
Groups D & E (Commercial and Mercantile)	0	0%	4%	$0	0	0	• N/A
Group F (Industrial)	0	0%	5%	$0	0	0	• N/A
Other Structure	2	12%	6%	$2,500	0	0	• Undetermined
Other (Outdoor, Vehicles)	7	44%	34%	$258,050	0	0	• Undetermined • Miscellaneous
Totals	**16**			**$1,513,800**	**1**	**0**	

Table 37. Fire loss statistics for South Bruce Peninsula, 2022.

Occupancy	Fires	S.B.P. %	ON%	$ Loss	Injuries	Deaths	Causes
Group A (Assembly)	1	4%	2%	$2,500,000	1	0	• Undetermined
Group B (Detention, Care, and Treatment)	0	0%	1%	$0	0	0	• N/A
Group C (Residential)	13	50%	47%	$1,466,200	2	0	• Heating equipment • Open flame/smoking material • Cooking • Electrical • Undetermined
Groups D & E (Commercial and Mercantile)	0	0%	4%	$0	0	0	• N/A
Group F (Industrial)	0	0%	5%	$0	0	0	• N/A
Other Structure	5	19%	5.6%	$29,500	0	0	• Exposure • Undetermined
Other (Outdoor, Vehicles)	7	27%	36%	$199,000	0	0	• Undetermined • Exposure • Electrical • Mechanical
Totals	**26**			**$4,194,700**	**3**	**0**	

Table 38 summarizes the fire loss statistics from the preceding tables and compares the results to the provincial average. (Note: The Ontario percentage in the table below only includes data from 2018 to 2021, as information for 2022 is currently unavailable.)

Table 38. Total fire loss statistics in South Bruce Peninsula, 2018 to 2022.

Occupancy	Fires	S.B.P. %	ON %	$ Loss	Injuries	Deaths
Group A (Assembly)	2	2%	2%	$2,750,000	1	0
Group B (Detention, Care, and Treatment)	0	0%	1%	$0	0	0
Group C (Residential)	47	54%	48%	$6,071,350	11	0
Groups D & E (Commercial and Mercantile)	0	0%	4%	$0	0	0
Group F (Industrial)	0	0%	5%	$0	0	0
Other Structure	13	15%	5%	$73,000	2	1
Other (Outdoor, Vehicles)	25	20%	36%	$784,550	0	0
Totals	**83**			**$9,678,900**	**14**	**1**

11.3 Response Statistics for South Bruce Peninsula Fire Department

Table 39 lists the Department's number of fire call responses from 2018 to 2022.

Table 39. Fire responses, 2018 to 2022.

Year	Loss Fires: Structures	Loss Fires: Other	Loss Fires: Vehicles	No Loss Fires	Non-Fire Calls	Total
2018	10	1	1	1	220	233
2019	7	2	4	2	264	279
2020	14	1	5	7	270	297
2021	9	0	7	13	258	287
2022	17	2	7	8	232	266
Total	**57**	**6**	**24**	**31**	**1,244**	**1,362**

The above table shows that responses to non-fire calls make up approximately 95 per cent of the Department's fire responses.

Table 40 compares Town of South Bruce Peninsula's non-fire call responses from 2020

to 2022 to the average of all fire departments in Ontario.

Table 40. Non-fire calls in South Bruce Peninsula vs. Ontario, 2020 to 2022.

Type of Response	South Bruce Peninsula	Ontario
Medical/resuscitator call	35.3%	44.7%
Other response	24.6%	17.4%
False fire calls	10.7%	4.5%
Public hazard	9.9%	12.3%
Rescue	6.8%	11.0%
Burning (controlled)	5.5%	2.7%
CO false calls	4.2%	3.1%
Pre-fire conditions	2.8%	4.2%
Overpressure rupture/explosion (no fire)	0.3%	0.1%

The above table shows that the Department responds to significantly more medical calls than any other type of non-fire call, which is typical of Ontario fire departments in general.

11.4 Risks Identified by the Past Loss and Event History Profile

Table 41 summarizes the risks identified by the past loss and event history profile for Town of South Bruce Peninsula.

Table 41. Past loss and event history profile risk summary.

Risk	Likelihood	Consequence	Risk Level
Fire/explosion in residential occupancy	Almost certain	Moderate	**High**
Fire in assembly occupancy	Likely	Major	**High**
Fire in vulnerable occupancy	Unlikely	Major	**Moderate**
Fire/explosion in industrial occupancy	Unlikely	Moderate	**Moderate**
Fire in agricultural occupancy	Almost certain	Minor	**Moderate**
Fire in commercial occupancy	Unlikely	Minor	**Low**

For more information about these risks, refer to the following sections of this CRA:

- Section 12: This section contains the risk level matrix used to calculate the overall likelihood levels and risk scores for the indicated risks.
- Section 13: This section contains the RTPs developed for the indicated risks.

12.0 Scoring Methodology and Risk Matrix

12.1 Determining Risk Scores

The Loomex Group determined risk scores for the hazards it identified in South Bruce Peninsula by assessing each threat's likelihood and consequence levels. This process involved using a hazard identification and risk assessment ("**HIRA**") scoring methodology developed by Emergency Management Ontario ("**EMO**"). However, The Loomex Group modified the consequence portion of the HIRA scoring system (as discussed below) to ensure that the scoring system in this CRA reflects the realities of delivering fire protection services.

12.2 Likelihood Scoring

The first component of the risk-scoring process is likelihood scoring. Likelihood levels are determined by thoroughly examining the results of the nine community profiles reviewed during a CRA's development. Particular focus is given to the past loss and event history profile.

Table 42 explains each level of risk likelihood.

Table 42. Likelihood levels used for the risk matrix.

Likelihood	Category	Rate of Occurrence	Likelihood Per Year
1	Rare	Occurs every 100 years or more.	Less than 1%
2	Very Unlikely	Occurs every 50 to 99 years.	1 to 2%
3	Unlikely	Occurs every 20 to 49 years.	2 to 5%
4	Probable	Occurs every five to 19 years.	5 to 20%
5	Likely	Occurs within a five-year period.	More than 20%
6	Certain	The hazard occurs annually.	100%

12.3 Consequence Scoring

The second component of the risk score process is consequence scoring. To complete the consequence scoring for this CRA, The Loomex Group used eight of the ten consequence categories from EMO's HIRA methodology (as defined in Table 43).

Table 43. Consequence levels used for the risk matrix.

Consequence Type	No Consequence	Low Consequence	Moderate Consequence	High Consequence
Life safety	Not likely to result in injuries or fatalities. No life safety issues.	Medical treatment may be required, but no fatalities are involved. Minor treatment or limited hospitalization may be required.	Extensive injuries occur and hospitalization is required. A fatality may be involved.	Many severe injuries requiring hospitalization have occurred. Multiple fatalities may be involved.
Evacuation	Not likely to result in an evacuation, a shelter-in-place order, or people stranded.	A small or localized portion of the population is evacuated, sheltered-in-place, or stranded.	A moderate and generally localized portion of the population is evacuated, sheltered-in-place, or stranded.	A large or widespread portion of the population is evacuated, sheltered-in-place, or stranded.
Psychosocial	Not likely to result in significant impacts on an individual's mental health and emotional well-being.	Moderate or generally short-term impacts on the mental health and emotional well-being of one or more people.	Significant and possibly long-term impacts on the mental health and emotional well-being of one or more people.	Widespread and possibly long-term impacts on the mental health and emotional well-being of the community.
Property damage	Not likely to result in property damage.	Could cause minor to moderate property damage.	Severe but localized property damage.	Widespread or severe damage to multiple properties.
Critical infrastructure	Not likely to disrupt assets or services.	Could cause a minor disruption of assets or services.	Could cause major but localized, short-term disruptions to critical infrastructure services.	Could cause widespread, severe, and ongoing disruptions of assets or services.
Environmental	Not likely to result in environmental damage.	Could cause localized but reversible environmental damage. A quick cleanup is possible.	Could cause major but reversible environmental damage. Clean-up efforts are difficult.	Could cause severe, irreversible environmental damage. Clean-up efforts are not possible.
Economic	Not likely to disrupt business or financial activities.	Could cause minor disruptions to businesses or financial activities. A minor disruption to the local economy is possible.	Could result in losses for one or more businesses. Could result in other negative consequences for the regional or local economy.	Could result in losses for an industry. Could cause severe economic impacts on the community or region.
Reputational	Not likely to result in significant legal, political, or reputational impacts.	Likely to result in limited or short-term legal, political, or reputational impacts.	Likely to result in significant or long-term legal, political, or reputational impacts.	Likely to result in significant or lasting legal, political, or reputational impacts.

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Weighting Structure

The Loomex Group calculated consequence scores for this CRA by using the following weighting structure:

- High consequence: Score of 3
- Moderate consequence: Score of 2
- Low consequence: Score of 1
- No consequence: Score of 0

In the life safety category, The Loomex Group multiplied the consequence score by a factor of 3, making 9 the maximum score for this category. The heavier overall weighting for this category is due to the potential for severe life safety consequences during a front-line emergency response.

12.4 Total Risk Scoring

Each hazard's overall risk level is calculated by multiplying its likelihood score by its consequence score.

After multiplying the likelihood and consequence scores, each risk is categorized by its severity, which is referred to as a total risk score (as defined in Table 44).

Table 44. Risk level categories.

Severity Level	Total Risk Score
Very Low	1 to 30
Low	31 to 60
Moderate	61 to 90
High	91 to 120
Very High	121 to 150
Extreme	151 to 180

12.5 Community Risks Identified in South Bruce Peninsula

Table 45 presents the risk matrix for South Bruce Peninsula. The table shows the likelihood and consequence scores that were assigned to each risk in order to calculate its total risk severity (total risk score) and priority (overall risk level).

Table 45. Risk matrix for South Bruce Peninsula.

Risk	Likelihood Score (L)	Life Safety Consequence	Evacuation Consequence	Psychosocial Consequence	Property Damage Consequence	Critical Infrastructure Consequence	Environmental Consequence	Economic Consequence	Reputational Consequence	Consequence Score (C)	Risk Total (L x C)	Risk Level
Severe weather event	6	6	2	1	1	3	2	2	1	18	108	**High**
Fire in residential occupancy	6	6	2	2	3	0	2	1	1	17	102	**High**
Fire in assembly occupancy	5	6	2	3	2	2	1	2	2	20	100	**High**
Road/highway emergency	6	6	2	1	1	1	2	1	1	15	90	**Moderate**
Critical infrastructure failure	6	3	2	1	2	2	1	1	1	13	78	**Moderate**
Fire in vulnerable occupancy	3	6	3	2	2	3	2	3	3	24	72	**Moderate**
Fire/explosion in industrial occupancy	4	3	2	1	3	1	3	3	2	18	72	**Moderate**
Fire in downtown core	4	6	2	1	2	2	2	2	1	18	72	**Moderate**
Wildland/forest fire	6	3	2	1	1	2	1	1	1	10	72	**Moderate**
Fire in propane storage facility	3	6	3	2	2	2	1	2	2	20	60	**Low**
Fire in agricultural occupancy	6	3	1	1	1	0	2	1	0	9	54	**Low**
Fire in commercial occupancy	4	3	2	1	2	1	1	2	1	13	52	**Low**

13.0 Risk Treatment Plans

13.1 Overview of Risk Treatment Plans

The following RTPs address the fire and life safety risks identified in South Bruce Peninsula. There is one RTP for each risk.

Each RTP begins by identifying which community profile is applicable to the risk under discussion. The RTP then presents administrative and operational observations about the risk and considers the following five questions:

1. What evidence is there to support the need for services that address this risk?
2. Does the current treatment meet the community's needs and expectations?
3. Is the community capable of delivering the required services?
4. Is there a way to make the community safer?
5. Are there any emerging risks the Department cannot manage or is not managing?

Based on the answers to the five questions above, the RTP recommends at least one of the following actions to address the risk under discussion:

- Avoid: Eliminate the hazard.
- Mitigate: Reduce the likelihood or impact of the risk.
- Accept: Take no action.
- Transfer: Transfer the risk to another party.
- Share: Transfer part of the risk's ownership to another party.

All recommended actions include risk management strategies that consider a range of potential topics, such as:

- policies, procedures, and service levels
- training
- service delivery agreements
- resource allocation

The RTPs then list the resources and timelines needed to implement the risk management strategies.

The Department should use the RTPs to guide the development of programs and services to lessen the impacts of the community's identified risks.

13.2 Severe Weather Event

Risk Level: High

Risk Score: 108

Applicable Community Profile

This risk was identified by the critical infrastructure profile and the hazard profile.

Current Treatment, Capability, and Services Provided

- The Department responds to all types of weather-related emergencies, including snowstorms and windstorms.
- If severe weather damages any infrastructure in South Bruce Peninsula, the Department provides rescue/evacuation services and establishes a safety zone (if necessary) until the proper authority arrives to repair or isolate the damaged infrastructure.
- If severe weather damages any infrastructure in South Bruce Peninsula, the Department provides rescue/evacuation services and establishes a safety zone (if necessary) until the event has cleared and travel is permitted.

Administrative and Operational Risks, Concerns, and Observations

- If a severe weather event damages any buildings or infrastructure in South Bruce Peninsula, it may take time for the proper authority to arrive at the emergency site to begin repairs.
- Severe weather can last for many days. If South Bruce Peninsula experiences a prolonged severe weather event, the Department's firefighters may struggle to balance their personal commitments with their emergency response duties.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Due to its location, South Bruce Peninsula experiences frequent severe weather events, including snowstorms and windstorms. These incidents often cause issues on the nearby highway. When issues occur on the highway, traffic is rerouted through the town, which can lead to severe impacts on the local roads.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

In most cases, the Department can deliver the required services.

If the Department needs additional resources or specialized assistance during a severe weather event, it can receive support through the Bruce County Mutual Aid Plan.

Is there a way to make the community safer?

The Department can continue providing public education about the importance of emergency preparedness, including what to do before, during, and after emergencies. The Department can also work with applicable external partners to provide public education about topics, such as the importance of 72-hour emergency kits.

The Department can ensure that South Bruce Peninsula conducts annual emergency management exercises that include the participation of applicable internal and external partners.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Continue providing public education about the importance of emergency preparedness, including what to do before, during, and after emergencies.

Share

- Work with applicable external partners to deliver public education about emergency preparedness. The initiatives should address topics such as the importance of 72-hour emergency kits.

Resources Needed

- Implementing this RTP will require the Department’s time and resources.
- Preparing and distributing public education information (such as flyers and handouts) will require resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Developing public education materials may have associated costs.

13.3 Fire in Residential Occupancy

Risk Level: High

Risk Score: 102

Applicable Community Profile

This risk was identified by the building stock profile, demographic profile, economic profile, and past loss and event history profile.

Current Treatment, Capability, and Services Provided

- The Department responds to fires in residential occupancies and provides exterior and interior fire suppression services and rescue services as needed.
- The Department provides some applicable public education and code enforcement services.

Administrative and Operational Risks, Concerns, and Observations

- South Bruce Peninsula has not established a comprehensive fire safety inspection program for the Department.
- South Bruce Peninsula does not have a Council-approved fire prevention policy.
- The Department has limited time and resources to conduct inspections, review fire safety plans, and deliver public education.
- The Department should inspect the multi-residential occupancies in South Bruce Peninsula on a consistent basis in order to verify that the buildings are maintaining compliance with applicable codes and safety requirements. However, due to limited time and resources, the Department may find it difficult to inspect those occupancies on a regular basis.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has responded to 47 residential fires. Collectively, those incidents resulted in a dollar loss of approximately $6,071,350. The fires also resulted in 11 injuries.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

The Department can deliver the required services. If a large-scale incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the Bruce County Mutual Aid Plan.

Is there a way to make the community safer?

The Department should strive to inspect the multi-unit dwellings in South Bruce Peninsula on a regular basis. (Those occupancies include hotels, group homes, and other lodging facilities.)

The Department can provide public education that instructs property owners to submit their fire safety plans to the Department for review and approval (as applicable).

Council can approve a fire prevention policy for the Department. The policy could outline the type of fire prevention and public education initiatives the Department should deliver, as well as how frequently those initiatives should be conducted. The policy could also include a schedule for conducting routine inspections and running a smoke/CO program.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Implement a Council-approved fire prevention policy.
- Inspect select residential occupancies (such as multi-unit dwellings, hotels, group homes, and other lodging facilities) on a regular basis.
- Ensure that property owners are submitting their fire safety plans to the Department for review and approval (as applicable).
- Develop and implement a smoke/CO alarm program that is applicable to the needs and circumstances of South Bruce Peninsula.

Resources Needed

- Implementing this RTP will require the Department's time and resources.
- Some public education materials (such as flyers or hand-outs) may be required.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections.
- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to deliver public education as part of a smoke/CO alarm program.

13.4 Fire in Assembly Occupancy

Risk Level: High

Risk Score: 100

Applicable Community Profile

This risk was identified by the building stock profile, demographic profile, and past loss and event history profile.

Current Treatment, Capability, and Services Provided

- The Department responds to assembly occupancy fires and provides exterior and interior fire suppression and rescue services as needed.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Administrative and Operational Risks, Concerns, and Observations

- Some assembly occupancies have high occupant loads and on-site cooking facilities. Other venues are permitted to serve alcohol during events. If a fire occurs, variables like these can increase the potential for injuries or death.
- The Department has not inspected the assembly occupancies in South Bruce Peninsula on a consistent basis.
- The Department has not completed the pre-incident planning process for all assembly occupancies in South Bruce Peninsula.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has responded to two fires in assembly occupancies that have resulted in a dollar loss.

According to Ontario's fire loss statistics, assembly occupancy fires represent approximately 2 per cent of all dollar loss fires in Ontario. Based on this statistic and the town's historical fire loss, South Bruce Peninsula may potentially experience future assembly occupancy fires.

In addition, unknown hazards may exist at the assembly occupancies in South Bruce Peninsula, as the Department is not inspecting those sites on a regular basis.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

The Department can deliver the required services for small-scale incidents. If a large-scale incident occurs, the Department may need to request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Is there a way to make the community safer?

The Department can inspect the assembly occupancies in South Bruce Peninsula on a consistent basis in order to verify that their fire and life safety systems remain functional.

The Department can ensure that all assembly occupancies in South Bruce Peninsula have an approved fire safety plan (as applicable).

The Department can verify that the supervisory staff working at the assembly occupancies in South Bruce Peninsula understand their fire safety responsibilities.

The Department can complete the pre-incident planning process for assembly occupancies in South Bruce Peninsula. Doing so will provide information that the Department can use to enhance the safety of building occupants and fire crews during emergencies.

South Bruce Peninsula can establish a fire prevention policy that includes an inspection schedule regarding assembly occupancies. Council could also use the document to formalize specific components of the Department's operations.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Develop a fire prevention policy and ensure it includes an inspection schedule regarding assembly occupancies.
- Inspect the assembly occupancies in South Bruce Peninsula on a regular basis.
- Verify that all assembly occupancies in South Bruce Peninsula have a fire safety plan (as applicable).
- Verify that all supervisory staff working at the assembly occupancies in South Bruce Peninsula understand their fire safety responsibilities (as applicable).
- Complete the pre-incident planning process for the assembly occupancies in South Bruce Peninsula.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections or the pre-incident planning process.

13.5 Road/Highway Emergency

Risk Level: Moderate

Risk Score: 90

Applicable Community Profile

This risk was identified by the geographic profile, critical infrastructure profile, demographic profile, hazard profile, and economic profile.

Current Treatment, Capability, and Services Provided

- The Department responds to a variety of road/highway incidents (such as motor vehicle collisions) and provides fire suppression, auto extrication, and rescue services as needed.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.
- The Department can respond to hazardous materials incidents at the operations level.
- The Department can provide vehicle rescue services at the technician level.

Administrative and Operational Risks, Concerns, and Observations

- Visitors and seasonal residents travelling through South Bruce Peninsula may be unfamiliar with the town's road network.
- Many commercial vehicles travel on Highway 6, which runs through South Bruce Peninsula. A high volume of traffic increases the risk of road/highway emergencies.
- Some vehicles travelling in and through South Bruce Peninsula may be transporting hazardous materials.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has responded to several emergencies on Highway 6, as well as the county roads, municipal roads, and private roads/trails in South Bruce Peninsula.

Based on the Department's response statistics, future road/highway emergencies are possible.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

The Department can deliver the required services for most incidents. If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Is there a way to make the community safer?

The Department can ensure that its personnel receive training on vehicle firefighting, auto extrication, and hazardous materials responses. The Department can also ensure that its personnel receive training about responding to emergencies that involve electric vehicles.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Ensure the Department's personnel receive ongoing training about vehicle firefighting, auto extrication, and hazardous materials responses.
- Ensure the Department's personnel receive ongoing training about responding to incidents that involve electric vehicles.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP is not likely to cause an immediate financial impact on the Department's budget.
- If the roads or infrastructure owned by South Bruce Peninsula become damaged, the town may incur significant repair costs.

13.6 Critical Infrastructure Failure

Risk Level: Moderate

Risk Score: 78

Applicable Community Profile

This risk was identified by the critical infrastructure profile.

Current Treatment, Capability, and Services Provided

- The Department responds to some types of critical infrastructure failures, such as downed hydro lines.
- If any critical infrastructure in South Bruce Peninsula is damaged, the Department provides a safety zone and conducts evacuations (if necessary) until the proper authorities arrive to isolate or repair the damaged systems.

Administrative and Operational Risks, Concerns, and Observations

- The Department must ensure that its personnel are trained to recognize the risks posed by critical infrastructure failures.
- The Department must ensure that its personnel are trained to recognize the safety precautions they need to take when responding to critical infrastructure failures.
- Lengthy power outages could severely affect the vulnerable occupancies and public services in South Bruce Peninsula.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, South Bruce Peninsula has experienced several critical infrastructure failures due to severe weather.

Based on current trends, future severe weather events are possible, which increases the potential for future critical infrastructure failures.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

The Department has the ability to establish a safety zone (and provide evacuation assistance, if necessary) until the proper authorities arrive to isolate or repair any damaged critical infrastructure in South Bruce Peninsula.

Is there a way to make the community safer?

The Department can provide public education about the importance of 72-hour emergency kits.

The Department can provide public education about emergency preparedness.

South Bruce Peninsula and the Department can continue working with the agencies that are responsible for maintaining the town's critical infrastructure. By maintaining ongoing communication with those agencies, all parties will keep informed about the status of the town's critical infrastructure.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Provide public education about the importance of 72-hour emergency kits.
- Provide public education about emergency preparedness.

Accept

- Continue monitoring for signs of severe weather in South Bruce Peninsula, offering applicable services if an incident occurs.

Share

- Continue working with the authorities who are responsible for the critical infrastructure in South Bruce Peninsula in order to ensure all critical infrastructure remains in good working order.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Developing public education materials may have associated costs.
- If any of the critical infrastructure owned/operated by South Bruce Peninsula is damaged, the town may incur significant repair costs.

13.7 Fire in Vulnerable Occupancy

Risk Level: Moderate

Risk Score: 72

Applicable Community Profile

This risk was identified by the building stock profile, demographic profile, economic profile, and past loss and event history profile.

Current Treatment, Capability, and Services Provided

- The Department responds to fires in vulnerable occupancies and provides exterior and interior fire suppression services and rescue services as needed.
- The Department provides some applicable public education and code enforcement services.
- The Department conducts fire drills as per the requirements of the FPPA.
- The Department conducts annual fire inspections and audits fire safety plans (as applicable).

Administrative and Operational Risks, Concerns, and Observations

- South Bruce Peninsula has not established a comprehensive fire safety inspection program.
- South Bruce Peninsula does not have a Council-approved fire prevention policy.
- The Department has limited time and resources to conduct inspections, review fire safety plans, and deliver public education.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has not responded to any dollar loss fires at the vulnerable occupancies in South Bruce Peninsula. However, vulnerable occupancy fires represent approximately 1 per cent of all dollar loss fires in Ontario. Based on this statistic, South Bruce Peninsula may potentially experience future vulnerable occupancy fires.

The local hospital is one of the leading employers in South Bruce Peninsula. If a fire occurred at the hospital, it could have widespread economic impacts on the community.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

In most cases, the Department can deliver the required services. If a large-scale incident occurs, the Department may need to request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Is there a way to make the community safer?

The Department can inspect the vulnerable occupancies in South Bruce Peninsula on a regular basis.

The Department can complete the pre-incident planning process for the vulnerable occupancies in South Bruce Peninsula. Doing so will provide information that the Department can use to enhance the safety of building occupants and fire crews during emergencies.

The Department can review the fire safety plans and the material safety data sheets for the industrial occupancies in South Bruce Peninsula. Doing so will help the Department determine which resources it will need during emergency responses at those sites.

South Bruce Peninsula can establish a fire prevention policy that includes an inspection schedule regarding vulnerable occupancies. Council could also use the document to formalize specific components of the Department's operations.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Develop a fire prevention policy and ensure it includes an inspection schedule regarding vulnerable occupancies.
- Ensure the Department has the time and resources needed to inspect the vulnerable occupancies in South Bruce Peninsula on a regular basis.
- Complete the pre-incident planning process for the vulnerable occupancies in South Bruce Peninsula.
- Review the fire safety plans and the material safety data sheets for the vulnerable occupancies in South Bruce Peninsula.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections or the pre-incident planning process.

13.8 Fire/Explosion in Industrial Occupancy

Risk Level: Moderate

Risk Score: 72

Applicable Community Profile

This risk was identified by the building stock profile and the past loss and event history profile.

Current Treatment, Capability, and Services Provided

- The Department responds to fires in industrial occupancies and provides exterior and interior fire suppression and rescue services as needed.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Administrative and Operational Risks, Concerns, and Observations

- The Department has not inspected the industrial occupancies in South Bruce Peninsula on a regular basis.
- There are several industrial buildings in South Bruce Peninsula that contain extensive fuel loads. Those facilities may potentially experience a fire, explosion, or hazardous materials spill. If one of those incidents occurs, it could cause severe environmental impacts.
- If an incident occurs at one of the industrial buildings in South Bruce Peninsula, the town may need to issue evacuation orders for certain residents (depending on wind conditions and the incident's severity).
- The Department has not completed the pre-incident planning process at the industrial occupancies in South Bruce Peninsula.
- The Department has not reviewed all fire safety plans and material safety data sheets for the industrial occupancies in South Bruce Peninsula.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has not responded to any dollar loss fires at the industrial occupancies in South Bruce Peninsula.

However, industrial occupancy fires represent approximately 5 per cent of all dollar loss fires in Ontario.

Given the nature of the work conducted at industrial occupancies, as well as the on-site materials, future incidents are possible. In addition, many local residents are employed at the industrial occupancies, and if an incident were to occur, it could result in significant economic impacts on South Bruce Peninsula.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

In most cases, the Department can deliver the required services. If a large-scale incident occurs, the Department may need to request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Is there a way to make the community safer?

The Department can inspect the industrial occupancies in South Bruce Peninsula on a regular basis.

The Department can complete the pre-incident planning process for the industrial occupancies in South Bruce Peninsula. Doing so will provide information that the Department can use to enhance the safety of building occupants and fire crews during emergencies.

The Department can review the fire safety plans and the material safety data sheets for the industrial occupancies in South Bruce Peninsula. Doing so will help the Department determine which resources it will need during emergency responses at those sites.

South Bruce Peninsula can establish a fire prevention policy that includes an inspection schedule regarding industrial occupancies. Council could also use the document to formalize specific components of the Department's operations.

Are there emerging risks that the Department cannot manage or is not managing?

The Department is not currently inspecting the industrial occupancies in South Bruce Peninsula on a consistent basis. As a result, emerging, unidentified risks may exist at those sites.

Recommended Risk Treatment Action and Strategy

Mitigate

- Develop a fire prevention policy and ensure it includes an inspection schedule regarding industrial occupancies.

- Ensure the Department has the time and resources needed to inspect the industrial occupancies in South Bruce Peninsula on a regular basis.
- Complete the pre-incident planning process for the industrial occupancies in South Bruce Peninsula.
- Review the fire safety plans and the material safety data sheets for the industrial occupancies in South Bruce Peninsula.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections or the pre-incident planning process.

13.9 Fire in Downtown Core

Risk Level: Moderate

Risk Score: 72

Applicable Community Profile

This risk was identified by the economic profile.

Current Treatment, Capability, and Services Provided

- The Department responds to fires in the downtown cores of each community in South Bruce Peninsula and provides exterior and interior fire suppression and rescue services as needed.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Administrative and Operational Risks, Concerns, and Observations

- The Department has not inspected the buildings in the downtown cores in South Bruce Peninsula on a consistent basis.
- There are several buildings in South Bruce Peninsula's downtown cores that contain extensive fuel loads. Those facilities are at a heightened risk of experiencing a fire.
- If an incident occurs at one of the buildings in a downtown core in South Bruce Peninsula, the town may need to issue evacuation orders for certain residents (depending on wind conditions and the incident's severity).
- The Department has not completed the pre-incident planning process for the buildings in South Bruce Peninsula's downtown cores.
- The Department has not reviewed all fire safety plans and material safety data sheets for the buildings in South Bruce Peninsula's downtown cores.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has responded to several incidents in South Bruce Peninsula's downtown cores, but those incidents did not result in any dollar loss.

Many local residents work in the downtown cores. If a fire were to occur in a downtown core in South Bruce Peninsula, the town may incur significant economic impacts.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

In most cases, the Department can deliver the required services. If a large-scale incident occurs, the Department may need to request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Is there a way to make the community safer?

The Department can inspect the occupancies in South Bruce Peninsula's downtown cores on a regular basis.

The Department can complete the pre-incident planning process for the occupancies in South Bruce Peninsula's downtown cores. Doing so will provide information that the Department can use to enhance the safety of building occupants and fire crews during emergencies.

The Department can review the fire safety plans and the material safety data sheets for the occupancies in South Bruce Peninsula's downtown cores. Doing so will help the Department determine which resources it will need during emergency responses at those sites.

Are there emerging risks that the Department cannot manage or is not managing?

The Department is not currently inspecting the buildings in South Bruce Peninsula's downtown cores on a consistent basis. As a result, emerging, unidentified risks may exist at those sites.

Recommended Risk Treatment Action and Strategy

Mitigate

- Ensure the Department has the time and resources needed to inspect the building in South Bruce Peninsula's downtown cores on a regular basis.
- Complete the pre-incident planning process for the occupancies in South Bruce Peninsula's downtown cores.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections or the pre-incident planning process.

13.10 Wildland/Forest Fire

Risk Level: Low

Risk Score: 60

Applicable Community Profile

This risk was identified by the geographic profile and the hazard profile.

Current Treatment, Capability, and Services Provided

- The Department responds to wildland fires and fires in the remote areas of South Bruce Peninsula.
- South Bruce Peninsula has an agreement with the Ministry of Natural Resources and Forestry regarding wildland fire coverage. If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through this agreement.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.
- South Bruce Peninsula has established a bylaw to regulate open-air burning in the town.

Administrative and Operational Risks, Concerns, and Observations

- Some wildland fires can cause road closures.
- Depending on the size of a wildland fire, South Bruce Peninsula may need to issue evacuation orders for affected areas.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

There is a history of wildland fires occurring in South Bruce Peninsula and the surrounding area. Over the past five years, the Department has responded to several open-air fires.

Based on current trends and historical data, future wildland fires are possible.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

The Department can deliver the required services for small-scale incidents. If a large-scale incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan. The Department can also contact the Ministry of Natural Resources and Forestry for assistance (as applicable).

Is there a way to make the community safer?

The Department can increase how frequently it provides public education about wildland fires, forest fires, and the local open-air burning bylaw. The Department should ensure it delivers public education to all residents, including seasonal residents.

The Department can use its social media channels—or South Bruce Peninsula's official website—to facilitate a public education program such as Fire Smart.

The Department can ensure that its personnel receive wildland firefighting training from a recognized training provider.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Continue providing public education about South Bruce Peninsula's open-air burning bylaw.
- Use social media channels or South Bruce Peninsula's official website to facilitate a public education program (such as Fire Smart).
- Ensure the Department's personnel continue to receive wildland firefighting training from a recognized training provider.

Share

- Continue working with the Ministry of Natural Resources and Forestry (as applicable).

Resources Needed

- Implementing this RTP will require the Department's time and resources.
- Some public education initiatives (such as facilitating a program like Fire Smart) may require additional materials.
- Public education materials (such as flyers or hand-outs) may be required.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will have a financial impact on the Department's operating budget if the Department assigns additional staff members or requires more work hours to deliver public education.
- Developing public education materials may have associated costs.
- Some training programs have may have associated costs.

13.11 Fire in Propane Facility

Risk Level: Low

Risk Score: 60

Applicable Community Profile

This risk was identified by the hazard profile.

Current Treatment, Capability, and Services Provided

- The Department responds to fires and provides fire suppression services and rescue services as needed.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Administrative and Operational Risks, Concerns, and Observations

- The Department has not inspected the propane facility in Georgian Bluffs on a consistent basis.
- The Department has not completed the pre-incident planning process for the propane facility in Georgian Bluffs.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

There is a large propane facility located in Georgian Bluffs (at the south entrance to Wiarton). If an incident were to occur at the facility, South Bruce Peninsula may experience widespread business disruptions. The town may also need to issue evacuation orders for some residents (depending on the factors such as wind direction and the incident's severity).

Does the current treatment meet the community's needs and expectations?

Due to a lack of regular inspections and incomplete pre-incident planning, the current treatment does not meet the community's needs and expectations.

Is the community capable of delivering the required services?

The Department can conduct inspections, but it may not have the time or resources to complete more inspections than it does now.

In terms of emergency responses, the Department can deliver the required services for small-scale incidents. If a large-scale incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance from the Inter Township Fire Department. The Department could also receive support through the County of Bruce Mutual Aid Plan.

Is there a way to make the community safer?

The Department can inspect the propane facility in Georgian Bluffs on a regular basis to verify that the building's life safety systems remain functional. The Department can also relay any concerns about the facility to Georgian Bluffs and the Inter Township Fire Department.

The Department can complete the pre-incident planning process for the propane facility in Georgian Bluffs. Doing so will provide information that the Department can use to enhance the safety of building occupants and fire crews during emergencies.

The Department can work with the Technical Safety Standards Association to ensure that the propane facility in Georgian Bluffs is meeting its legislative requirements.

The Department can work with the Inter Township Fire Department to ensure that there is a plan in place that will help safeguard town residents if an incident at the propane facility were to occur.

The Department can provide public education to instruct residents and businesses about the steps they may need to take if an emergency occurs at the propane facility in Georgian Bluffs.

Are there emerging risks that the Department cannot manage or is not managing?

As of this CRA, there are no unmanaged emerging risks.

Recommended Risk Treatment Action and Strategy

Mitigate

- Ensure the Department has the time and resources needed to inspect the propane facility in Georgian Bluffs on a regular basis.
- Complete the pre-incident planning process for the propane facility in Georgian Bluffs.
- Review the fire safety plans and the material safety data sheets for the propane facility in Georgian Bluffs.
- Provide public education to residents and businesses regarding the propane facility in Georgian Bluffs.

Transfer

- Work with Georgian Bluffs to coordinate inspections and a system to ensure that support is available during emergency responses (as needed).

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections or the pre-incident planning process.
    - South Bruce Peninsula may need to hold discussions with Georgian Bluffs regarding potential funding arrangements.

13.12 Fire in Agricultural Occupancy

Risk Level: Low

Risk Score: 54

Applicable Community Profile

This risk was identified by the building stock profile, economic profile, and the past loss and event history profile.

Current Treatment, Capability, and Services Provided

- The Department responds to fires in agricultural occupancies and provides exterior and interior fire suppression services and rescue services as needed.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Administrative and Operational Risks, Concerns, and Observations

- South Bruce Peninsula has not established a comprehensive fire safety inspection program.
- South Bruce Peninsula does not have a Council-approved fire prevention policy.
- The Department has limited time and resources to conduct inspections, review fire safety plans, and deliver public education.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has responded to 13 fires in occupancies not classified by the Ontario Building Code, including agricultural occupancies. Collectively, those incidents resulted in a dollar loss of approximately $73,000.

Due to variables like building use and on-site materials, the agricultural occupancies in South Bruce Peninsula are at a heightened risk of experiencing a fire or other emergency in the future.

Does the current treatment meet the community's needs and expectations?

Due to a lack of regular inspections and incomplete pre-incident planning for the large farm operations in South Bruce Peninsula, the current treatment does not meet the community's needs and expectations.

Is there a way to make the community safer?

The Department can inspect the agricultural occupancies in South Bruce Peninsula on a regular basis.

The Department can complete the pre-incident planning process for the agricultural occupancies in South Bruce Peninsula. Doing so will provide information that the Department can use to enhance the safety of building occupants and fire crews during emergencies.

The Department can review the fire safety plans and the material safety data sheets for the agricultural occupancies in South Bruce Peninsula. Doing so will help the Department determine which resources it will need during emergency responses at those sites.

The Department can provide applicable public education to the owners of the agricultural occupancies in South Bruce Peninsula. The Department can also work with the local farming association to help facilitate existing public education programs.

South Bruce Peninsula can establish a fire prevention policy that includes an inspection schedule regarding industrial occupancies. Council could also use the document to formalize specific components of the Department's operations.

Are there emerging risks that the Department cannot manage or is not managing?

The Department is not currently inspecting the agricultural occupancies in South Bruce Peninsula on a regular basis. As a result, emerging, unidentified risks may exist at those sites.

Recommended Risk Treatment Action and Strategy

Mitigate

- Develop a fire prevention policy and ensure it an inspection schedule regarding agricultural occupancies.
- Ensure the Department has the time and resources needed to inspect the agricultural occupancies in South Bruce Peninsula on a regular basis.
- Complete the pre-incident planning process for all agricultural occupancies in South Bruce Peninsula.
- Review the fire safety plans and the material safety data sheets for the agricultural occupancies in South Bruce Peninsula
- Work with the local farming association to provide public education to the owners of the agricultural occupancies in South Bruce Peninsula. The public education should emphasize fire safety.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections or the pre-incident planning process.

13.13 Fire in Commercial Occupancy

Risk Level: Low

Risk Score: 52

Applicable Community Profile

This risk was identified by the building stock profile, economic profile, and the past loss and event history profile.

Current Treatment, Capability, and Services Provided

- The Department responds to fires in commercial occupancies and provides exterior and interior fire suppression and rescue services as needed.
- If an incident occurs and it exceeds the Department's resources or capabilities, the Department can request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Administrative and Operational Risks, Concerns, and Observations

- The Department has not inspected the commercial occupancies in South Bruce Peninsula on a regular basis.
- There are several commercial buildings in South Bruce Peninsula that contain extensive fuel loads.
- If an incident occurs at one of the commercial buildings in South Bruce Peninsula, the town may need to issue evacuation orders for certain residents (depending on wind conditions and the incident's severity).
- The Department has not completed the pre-incident planning process for the commercial occupancies in South Bruce Peninsula.
- The Department has not reviewed the fire safety plans and material safety data sheets for all commercial occupancies in South Bruce Peninsula.

Determining Appropriate Fire Protection Services

What evidence is there to support the need for services that address this risk?

Over the past five years, the Department has responded to several incidents at commercial occupancies. However, no dollar loss fires have occurred during that time. However, commercial occupancy fires represent approximately 4 per cent of all dollar loss fires in Ontario.

Given the type of work performed at commercial occupancies, as well as the on-site materials and equipment at those facilities, future incidents are possible.

There are many residents of South Bruce Peninsula who work in the local commercial occupancies. If a fire were to occur at one (or more) of those occupancies, the town may incur significant economic impacts.

Does the current treatment meet the community's needs and expectations?

The current treatment seems to meet the community's needs and expectations.

Is the community capable of delivering the required services?

In most cases, the Department can deliver the required services. If a large-scale incident occurs, the Department may need to request additional or specialized assistance through the County of Bruce Mutual Aid Plan.

Is there a way to make the community safer?

The Department can inspect the commercial occupancies in South Bruce Peninsula on a regular basis.

The Department can complete the pre-incident planning process for the commercial occupancies in South Bruce Peninsula. Doing so will provide information that the Department can use to enhance the safety of building occupants and fire crews during emergencies.

The Department can review the fire safety plans and the material safety data sheets for the commercial occupancies in South Bruce Peninsula. Doing so will help the Department determine which resources it will need during emergency responses at those sites.

Are there emerging risks that the Department cannot manage or is not managing?

The Department is not currently inspecting the commercial occupancies in South Bruce Peninsula on a regular basis. As a result, emerging, unidentified risks may exist at those sites.

Recommended Risk Treatment Action and Strategy

Mitigate

- Ensure the Department has the time and resources needed to inspect the commercial occupancies in South Bruce Peninsula on a regular basis.
- Complete the pre-incident planning process for the commercial occupancies in South Bruce Peninsula.
- Review the fire safety plans and the material safety data sheets for the commercial occupancies in South Bruce Peninsula.

Resources Needed

- Implementing this RTP will require the Department's time and resources.

Timeline

- The Department should begin incorporating the strategies in this RTP into its regular operations as soon as possible.

Financial Implications

- Implementing this RTP will impact the Department's operating budget if additional staff members or work hours are needed to complete building inspections or the pre-incident planning process.

Appendix A: List of Abbreviations

This community risk assessment uses the following acronyms and abbreviations.

CI:	critical infrastructure
Council:	Council of the Town of South Bruce Peninsula
CRA:	community risk assessment
Department, the:	South Bruce Peninsula Fire Department
E&R bylaw:	establishing and regulating bylaw
EMO:	Emergency Management Ontario
EOC:	emergency operations centre
FPPA:	Fire Protection and Prevention Act
HIRA:	hazard identification and risk assessment
LWC:	lightweight construction systems
OBC:	Ontario Building Code
OFC:	Ontario Fire Code
OFM:	Ontario Fire Marshal
RTP:	risk treatment plan

Appendix B: References

This community risk assessment is based in part on information from the following legislation and documents:

- Fire Protection and Prevention Act, 1997
- Ontario Fire Marshal Technical Guideline 02-2019
- Ontario Regulation 213/07: Fire Code
- Ontario Regulation 378/18: Community Risk Assessments
- Statistics Canada 2016 Census Profile
- Statistics Canada 2021 Census Profile

Appendix C: Glossary of Terms

There are varying definitions for the terms used in risk assessments and risk management. This community risk assessment uses the following definitions from Emergency Management Ontario's glossary of terms:

Assessment: The evaluation and interpretation of available data as a basis for decision-making.

Catastrophe: An emergency of particularly severe proportions.

Community: A generic term that refers to municipalities and First Nations communities.

Consequence: A result or effect of an action or condition that is expressed qualitatively or quantitatively. A consequence can manifest as a loss, injury, or disadvantage.

Critical infrastructure: The infrastructure that contributes to the interconnected networks, services, and systems that meet vital human needs, sustain the economy, and protect public safety and security.

Hazard: A phenomenon, substance, human activity, or condition that may cause a loss of life, an injury, or other health impacts. A hazard can also result in property damage, service loss, social and economic disruptions, and environmental damage. Hazards can be natural, technological, or human-caused, or some combination of these.

Hazardous material: A substance (gas, liquid, or solid) capable of causing harm to people, property, the environment, the economy, or services. Materials with toxic, flammable, or explosive properties are considered hazardous.

Mitigation: Actions taken to reduce the adverse impacts of an emergency or disaster. Such actions may include diversion or containment measures to lessen the impacts of a flood or a spill.

Probability: The likelihood of an event occurring that may result in an emergency, disaster, or service disruption.

Public education program: A program that provides focused information to a target audience to educate about protective actions to reduce the risk of life and property damage in an emergency.

Risk: The product of the probability of the occurrence of a hazard and its consequences.

Risk assessment: A process used to identify and evaluate potential risks by analyzing specific hazards and estimating the likelihood and consequences of their occurrence.

Appendix D: Fire Marshal Directive 2022 – 001

TOPIC: Use of Information on Lightweight Construction to Inform Fire Suppression Pre-Planning Activities

This directive is issued under the provisions of the *Fire Protection and Prevention Act, 1997*, (FPPA) S.O. 1997, chapter 4, clause 9.(1)(b). It is the responsibility of every assistant to the Fire Marshal to follow the Fire Marshal's directive as set out in subsection 11.(1) of the FPPA. Further, under clause 9.(2)(b) of the FPPA, the Fire Marshal has the duty to advise municipalities in the interpretation and enforcement of this Act and the regulations.

Background

It has been well established that buildings constructed with truss and lightweight construction systems[i] (commonly referred to as lightweight construction) may be susceptible to pre-mature failure and rapid collapse under certain fire conditions, and thereby pose a risk to responding fire crews. Given this risk, it is important for responding fire departments to be aware of the presence of lightweight construction buildings to inform delivery of fire suppression service and protect the safety of firefighters.

Following the tragic passing of two volunteer firefighters, Ken Rea and Ray Walter, who were killed while battling a fire in Listowel when the roof of the building they were inside collapsed, the focus is to provide firefighters with the necessary information about a building's structural composition to safely plan fire suppression activities and help ensure their safety.

Building stock profile, including any building-related risks known to the fire department, must be considered in the development of Community Risk Assessment required under O. Reg. 378/18 - Community Risk Assessments (CRA)[ii].

Identifying the presence of lightweight construction where it is known to exist in a community's building stock is required[iii] by Worksheet #2 "Building Stock Profile" included in Appendix A of Office of the Fire Marshal technical guideline TG-02-2019 (as revised on February 25, 2022). Where this information is used to inform fire suppression pre-planning activities, the goal of providing firefighters with necessary information to help ensure their safety is met.

Directive

Those assistants to the Fire Marshal, as identified in clause 11.(1)(a) of the FPPA (the fire chief of every department), are directed to:

- Ensure that information on the presence of truss and lightweight construction systems (lightweight construction) in a community's building stock, that is known

and documented in the Community Risk Assessment, is used to inform fire suppression pre-planning activities conducted within the community:

- by the local fire department; and
- by other municipalities providing fire suppression services through fire protection agreements.

Those assistants to the Fire Marshal, as identified in clause 11.(1)(b) of the FPPA (the clerk of every municipality that does not have a fire department) are directed to:

- Ensure that information on the presence of truss and lightweight construction systems (lightweight construction) in the community's building stock, that is known and documented in the Community Risk Assessment, is provided to those fire departments who provide fire protection services to the community, to inform their fire suppression pre-planning activities.

Rationale

As truss and lightweight construction systems may be susceptible to pre-mature failure and rapid collapse under certain fire conditions, and pose a risk to responding fire crews, information pertaining to the presence of lightweight construction that is known and documented in a Community Risk Assessment must be used to inform pre-planning activities so that firefighters responding to a fire emergency may appropriately plan their fire response strategy.

Jon Pegg
Ontario Fire Marshal
February 25, 2022

[i] Buildings constructed using:
i. lightweight pre-engineered floor or roof systems containing lightweight elements such as wood I-joists, cold formed steel joists, wood truss assemblies with metal or wood plates and metal web wood joists; or
ii. lightweight floor or roof systems containing solid sawn lumber joist less than 38 mm by 235 mm.

[ii] The CRA is an in-depth and comprehensive assessment to inform fire protection service levels and requires the identification, analysis, evaluation and prioritizing of risk, based on nine mandatory profiles. The regulation outlines a standard set of information profiles that must be considered when conducting a community risk assessment. The information and data gathered to address each of the profiles will assist in determining and prioritizing the risks to public safety in the community, and determining the fire protection services to be provided by municipalities and fire departments in territories without municipal organization to address those risks.

[iii] Section 2.(3) of the regulation requires that a CRA be in the form, if any, that the Fire Marshal provides or approves. The minimum expected level of information and detail that must be considered with respect to each of the mandatory profiles is outlined in Worksheets 1-9 included in Appendix A of TG-02-2019. While different styles and formats of the worksheets may be used, the information that is collected and considered for each profile must at minimum include the information outlined in the Appendix A worksheets.

Appendix E: Accessible Data from Figures

For accessibility purposes, this appendix presents the data from Figure 1 as a table.

Table 46. Accessible data from Figure 1.

Type of Risk	Risk Score	Risk Level
Severe weather event	108	High
Fire in residential occupancy	102	High
Fire in assembly occupancy	100	High
Fire in vulnerable occupancy	72	Moderate
Road/highway emergency	90	Moderate
Critical infrastructure failure	78	Moderate
Fire/explosion in industrial occupancy	72	Moderate
Fire in downtown core	72	Moderate
Wildland/forest fire	72	Moderate
Fire in propane storage facility	60	Low
Fire in agricultural building	54	Low
Fire in commercial occupancy	52	Low